CRITICAL ECOSYSTEM PARTNERSHIP FUND

Ecosystem Profile

THE SOUTHERN REGION OF THE MESOAMERICA BIODIVERSITY HOTSPOT

NICARAGUA, COSTA RICA, PANAMA

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INTRODUCTION

The Critical Ecosystem Partnership Fund (CEPF) is designed to better safeguard the world's threatened biodiversity hotspots in developing countries. It is a joint initiative of Conservation International (CI), the Global Environment Facility (GEF), the Government of Japan, the MacArthur Foundation and the World Bank. CEPF provides financing to projects in biodiversity hotspots, areas with more than 60 percent of the Earth's terrestrial species in just 1.4 percent of its land surface. A fundamental purpose of the Fund is to ensure that civil society is engaged in efforts to conserve biodiversity in the hotspots. An additional purpose is to ensure that those efforts complement existing strategies and frameworks established by local, regional and national governments.

CEPF will promote working alliances among community groups, NGOs, government, academic institutions and the private sector, combining unique capacities and eliminating duplication of efforts for a more comprehensive approach to conservation. CEPF is unique among funding mechanisms in that it focuses on biological areas rather than political boundaries and will examine conservation threats on a corridor-wide basis for maximum return on investment. It will also focus on transboundary cooperation when areas rich in biological value straddle national borders, or in areas where a regional approach will be more effective than a national approach. CEPF aims to disburse funds to civil society in a responsive and opportunistic manner, complementing funding currently available to government agencies.

The governments of the countries in the Mesoamerica hotspot have taken steps to protect the biodiversity of the region. All are signatories of the Convention of Biological Diversity (CBD) and Agenda 21, as well as members of the Mesoamerican Biological Corridor, a regional initiative to maintain connections between protected areas. The southern region of Mesoamerica roughly encompasses Panama, Costa Rica and southern Nicaragua, and is the major focus of this ecosystem profile. Extending to the central part of Costa Rica and Panama and descending on both sides to sea level, these montane and cloud forest ecosystems have been declared World Heritage Sites and Biosphere Reserves. The governments of both Costa Rica and Panama have included these regions in their National Biodiversity Conservation Strategies, designating them as areas of utmost importance.

The strategic directions of the CEPF program in Mesoamerica are strongly linked to a detailed priority-setting process, and address several gaps in the larger conservation needs of the region. Building on the collaborative processes already underway will allow not only for cooperation with the many nongovernmental, scientific, and other private-sector participants, but also for opportunities to build the capacities of these groups. CEPF's niche in the southern region of Mesoamerica is to support civil society efforts in conservation and provide linkages in otherwise fragmented approaches to conservation in the area. This will be achieved through bottom-up conservation in three targeted corridors to minimize extinction in a rich biodiverse flora and fauna, by empowering local stakeholders to embrace conservation.

In summary, CEPF offers an opportunity to promote the conservation of some of the most important ecosystems in the world — places of high biodiversity and great beauty. CEPF will promote the engagement of a wide range of public and private institutions to address conservation needs through coordinated regional efforts.

The Ecosystem Profile

The purpose of the ecosystem profile is to provide an overview of the causes of biodiversity loss in a particular region and to couple this assessment with an inventory of current conservation activities in order to identify the niche where CEPF investments can provide the greatest incremental value. The ecosystem profile is intended to recommend broad strategic funding directions that can be implemented by civil society to contribute to the conservation of biodiversity in the targeted region. Applicants propose specific projects consistent with these broad directions and criteria. The ecosystem profile does not define the specific activities that prospective implementers may propose in the region, but outlines the conservation strategy that will guide those activities. For this reason, it is not possible or appropriate for the ecosystem profile to be more specific about the site or scope of particular interventions or to identify appropriate benchmarks for those activities. Applicants will be required to prepare detailed proposals that specify performance indicators.

The Corridor Approach to Conservation

The corridor approach to biodiversity conservation seeks to provide a practical and effective solution to the universal difficulty of maintaining extensive areas of pristine habitat. It is recognized that large habitat parcels are essential for maintaining biodiversity and large-scale ecological processes, and that every opportunity to protect large bodies of habitat in perpetuity should be taken. Nevertheless, few such opportunities exist. Existing protected areas are often too small and isolated to maintain viable ecosystems and evolutionary processes; indeed, in many hotspots, even the remaining unprotected habitat fragments are acutely threatened. In such circumstances, conservation efforts must focus on linking major sites across wide geographic areas in order to sustain these large-scale processes and ensure the maintenance of a high level of biodiversity. Such networks of protected areas and landscape management systems are *biodiversity corridors*.

The main function of the corridors is to connect biodiversity areas through a patchwork of sustainable land uses, increasing mobility and genetic exchange among individuals of fauna and flora even in the absence of large extensions of continuous natural habitat. Such corridors not only promote the immediate goals of regional-scale conservation based on individual protected areas, but also help maintain the ecosystem processes needed in order to sustain biodiversity into the future. In this context, small habitat fragments within corridors perform several related functions — connecting or reconnecting larger areas, maintaining heterogeneity in the habitat matrix, and providing refuge for species that require the unique environments present in these fragments.

Large-scale intervention through biodiversity corridors, ecoregional planning, and landscape conservation is therefore one of the highest conservation priorities at the regional level in many of the world's hotspots and wilderness areas. From an institutional perspective, CEPF's adoption of the corridor approach aims to stimulate new levels of civil society empowerment and participation in practical and political processes as a way to underpin and to multiply the effect of government and corporate responses to conservation. The corridor approach relies on strategic partnerships with key stakeholders to build a support framework and to coordinate activities in the field. The active involvement of local stakeholders and the development of their planning and implementation skills are essential to the sustainability of the biodiversity corridor.

BACKGROUND

The Mesoamerican Biological Corridor (MBC) project — funded by the Global Environment Facility (GEF) — is one of the most ambitious plans to bring conservation and sustainable development into the regional agenda. This initiative has both a political focus and a programmatic approach emphasizing biodiversity conservation, consolidation of the regional system of protected areas, community development, and communications.

A large, albeit incomplete, body of biological information has been assembled about the Mesoamerica hotspot. Several priority-setting exercises have been conducted using different kinds of filters (regional vs. national boundaries, broad vs. fine scope, and habitat vs. species focus). In 1995, under the auspices of a consortium including the Biodiversity Support Program, Conservation International, the Nature Conservancy, Wildlife Conservation Society, the World Resources Institute, and the World Wide Fund for Nature (with financial support from USAID), *A Regional Analysis of Geographic Priorities for Biodiversity Conservation in Latin American and the Caribbean* was published, defining regional habitat units and assessing their biological value, conservation status, and conservation priority level. Mesoamerica encompasses several of these ecoregions, and priority areas include the Darién and Peten forests; the forests of the southern Sierra Madre, Central American cloud forests, the forests of the Talamanca/Panama region; the Nenton zone; Caribbean pine forests; and the Central American dry forests, including the Motagua Valley of Guatemala.

Because this region has already undergone many stakeholder consultation processes and prioritization exercises, the development of this ecosystem profile involved very unobtrusive and targeted processes intended to secure consensus without duplicating priority-setting efforts. In 2000, the leading international conservation organizations in the region — including the World Wide Fund for Nature, the Nature Conservancy, and Conservation International — joined forces with recognized scientific experts, local NGOs, and the Mesoamerica Biological Corridor Project to identify regional conservation gaps and priority actions. This process originated as an independent effort, before CEPF targeted the Mesoamerican region for investment. CEPF made a very small investment in this prioritization process; however, building on the results of this process constitutes a major element of the recommended focus for CEPF investment in this region, and will serve as a guiding framework for that investment. By supporting these results, CEPF has a unique opportunity to enhance protection of biodiversity in the region in a way that maximizes return on a small investment.

A rapid assessment of existing planning processes, coupled with targeted stakeholder consultations, led to the conclusions reported in this ecosystem profile. This analysis revealed a need to integrate broad regional initiatives with additional conservation activities on the ground. This ecosystem profile emphasizes the need to ensure civil society participation to expand the successful "building blocks of conservation" developed through 10 years of investment in the MBC through efforts to:

- develop a common vision for three corridors through targeted investment in existing civil society alliances;
- increase civil society efforts to connect protected areas;
- highlight flagship species through awareness campaigns for conservation; and
- support the management of protected areas.

In addition, a workshop was held in Managua, Nicaragua, in August 2001 to consult with experts working in most of the southeastern region of Nicaragua and border region with Costa Rica. More than 40 individuals participated, and their recommendations have been integrated into the ecosystem profile. During the development of the strategic themes outlined in the ecosystem profile, more than a dozen interviews were held with conservation leaders in Costa Rica and Panama to gauge priorities and seek advice. Despite efforts to analyze conservation successes and gaps in the region, CEPF has not attempted to assess in detail the impact or success of the entire MBC effort and the various initiatives supporting it over a decade of donor investment. Analysis of the GEF's $120 million investment in this region is required; however, it is not a logical undertaking for CEPF given the relative level of CEPF investment in the region.

BIOLOGICAL IMPORTANCE OF THE MESOAMERICA HOTSPOT

The Mesoamerica hotspot includes all tropical and subtropical natural plant formations from the Panama Canal west and north through Costa Rica, Nicaragua, Honduras, El Salvador, Guatemala, and Belize, and southern and central Mexico as far as northern Sinaloa (Río Fuerte) on the Pacific coast and the middle of the Sierra Madre Occidental west of Tampico on the Gulf Coast. It includes all tropical and subtropical moist and dry forest zones usually considered part of the Neotropical region, but not the truly Nearctic (warm temperate) regions of northwestern Mexico.

The hotspot covers all of Central America (except for the region east and south of the Panama Canal, which is included in the Chocó-Darién-Western Ecuador Hotspot); the Mexican states of Chiapas, Tabasco, Colima, Veracruz, Oaxaca, Campeche, Yucatán, Quintana Roo; and parts of the Mexican states of Jalisco, Guerrero, Puebla, Sinaloa, Nayarit, Michoacán, Tlaxcala, Mexico, Morelos and Tamaulipas. In size, it ranks eighth among the 25 hotspots; yet in terms of biodiversity, it heads the global list along with the Tropical Andes and Sundaland.

The very high biodiversity of this region is in part attributable to its geographic position at the junction of two of the world's great biogeographic realms — the Nearctic of North America and the Neotropical of South and Central America and the Caribbean — and its role as a land bridge between the continents. It was only about 5 million years ago (very recently in geological time) that parts of Central America rose above sea level, creating a land bridge between North and South America. For the first time, South American monkeys and sloths met North American squirrels and raccoons in the forests of Central America. Aided by the diverse topography of the land bridge — including ancient crystalline uplands, younger metamorphic mountain ranges, and active volcanoes — the region developed its own unique species, resulting in high faunal and floral endemism in the transition zone itself.

Levels of Biological Diversity and Endemism

This hotspot has an estimated 24,000 species of vascular plants, of which approximately 5,000 (21%) are endemic. The figure for total diversity is fourth highest, exceeded only by the Tropical Andes, Sundaland, and Mediterranean hotspots, while the figure for endemism ranks 10th on the global list. Vertebrate diversity is even more impressive. Mammal diversity is the second highest on the hotspot list, with 521 mammal species (195 species of rodents alone), exceeded only by the Guinean Forests of West Africa. Of these, 210 (a remarkable 40%) are endemic, surpassing by 50 the number of endemic mammal species in any other hotspot. Resident bird species number 1,052 and migrant species 141, for a total of 1,193, second only to the Tropical Andes. Of these, 251 (21%) are endemic, again exceeded only by the Tropical Andes. Not surprisingly, this region is also a top priority for BirdLife International, which recognizes no fewer than 17 Endemic Bird Areas within the hotspot, covering almost its entire extent; this figure also is exceeded only by the Tropical Andes. The region is a critical flyway for at least 225 migratory species; three of the Western Hemisphere's four migratory bird routes converge in Mesoamerica.

This region is ecologically complex and has been organized and subdivided according to many different scientific approaches. The *World Life Zone System of Ecological Classification* has been widely used in Mesoamerica; the entire region except for parts of Mexico and eastern Nicaragua has been mapped using this approach. In the Mesoamerica hotspot, 30 of these life zones have been mapped — 25% of all life zones known to exist on the planet. Fifteen of these occur in the tropical latitudes, extending from Panama into a few spots in southern Honduras and El Salvador, and ranging from Tropical Basal Dry Forest, Tropical Basal Moist Forest, and Tropical Basal Wet Forest up to Tropical Subalpine Rain Páramo. The other 15 occur in the subtropical latitudes, extending from central Nicaragua north into Mexico and ranging from Subtropical Basal Dry Forest, Moist Forest and Wet Forest up to Subtropical Nival, found on some Mexican volcanoes with permanent snowfields.

The Caribbean lowlands harbor significant moist, wet forest and rainforest life zones in both the subtropical and tropical latitudes. Subtropical wet and rain forests exhibit very high species diversity and are well represented in this hotspot by La Selva Lacandona in southern Mexico, the Toledo District of Belize, the La Mosquita region of Honduras, Nicaragua's Costa de Miskitos, and the Sarapiquí and Tortuguero Plains of northeastern Costa Rica. Pine savannas occur on exceptionally poor sandy soils in northeastern Nicaragua in particular and are dominated by the Caribbean pine and oak.

Prioritization of Corridors within the Hotspot

The entire Mesoamerica hotspot represents a global conservation priority; however, the region's size and international scope, and the limited funding available, necessitate further prioritization of corridors within the hotspot to achieve the greatest impact. The southern region of the Mesoamerica Corridor harbors the highest montane forests in Central America, with the most extensive and best-protected cloud forests in the region. The design and implementation of conservation initiatives in these corridors is the first step toward preservation of species and ecosystem diversity throughout the hotspot.

Factors in selection of these target corridors for CEPF investment included:

- need to focus limited resources for greater impact;
- desire to capitalize upon Conservation International's existing program based in Costa Rica to achieve economies of scale for managing CEPF in the region;
- desire to support existing conservation priority-setting processes;
- goal of strengthening existing NGO partnerships;
- opportunities to support existing priority corridors of the MBC; and
- potential to connect adjacent protected areas with a binational focus, such as those between southern Nicaragua and Costa Rica and between Costa Rica and Panama.

The argument for focusing on the southern region of Mesoamerica and particularly for these three specific corridors was also driven by a scientific assessment showing that this region holds at least 37 Threatened terrestrial vertebrate species. Of these, 25 are endemic to the southern region, and 28 are endemic to Mesoamerica (half of Mesoamerica's threatened endemics). The 25 species are concentrated in three areas: the mountains of northern Costa Rica; the Pacific slope of southeast Costa Rica, including the Osa Peninsula; and the Atlantic slope of the mountains of eastern Costa Rica and western Panama, including Isla Escuda de Veraguon. In addition, these three areas hold 12 Threatened species with wider range. Only three of the region's Threatened species are not represented within the corridors.

These biological considerations, coupled with the need to maximize return on limited investment, resulted in the decision to focus CEPF investment on the southern region of the Mesoamerica hotspot, and specifically on three priority areas: the Rio San Juan-La Selva corridor between Nicaragua and Costa Rica; the southern Talamanca region connecting with the Osa Peninsula; and the northern Talamanca-Bocas del Toro corridor. Concentrating CEPF investment in these corridors is a logical first step for a phased approach to CEPF involvement in Mesoamerica. Therefore, CEPF's approach in Mesoamerica will be implemented in distinct phases concentrating on Southern Mesoamerica first and Northern Mesoamerica within the next three years.

The northern region of Mesoamerica possesses critical conservation targets within the hotspot. Extending from the southern states of Mexico to the borders of Guatemala, Honduras, and El Salvador, ongoing prioritization processes have identified three key conservation areas: the Zoque Forest of Oaxaca, including the Chimalapas region; the Quetzal Corridor linking El Triunfo Biosphere Reserve with the western highlands of Guatemala; and the Selva Maya region of Guatemala, Mexico, and Belize. In Selva Maya, an alliance of NGOs called the Selva Maya Coalition is beginning to unite efforts and develop a joint strategy to protect this vast tropical forest region spanning three national borders.

The CEPF's focus on the south reflects the need to address the critical conservation requirements of both regions separately. The CEPF management team hopes to secure authority from the Donor Council to emphasize the northern region of Mesoamerica in a different cycle of preparation and future grantmaking. This ecosystem profile presents both an overview of the broader Mesoamerican perspective and data specific to the three priority corridors in Nicaragua, Costa Rica, and Panama.

Given that all three CEPF priorities in Southern Mesoamerica have received significant multilateral funding, CEPF will favor projects that demonstrate longer-term financial sustainability. Project proposals demonstrating a binational focus will be reviewed more favorably. The three distinct regions of South Mesoamerica will be eligible for the following distribution of resources:

Cerro Silva-Indio Maiz-La Selva Corridor

This expansive area in southeast Nicaragua and the northern Costa Rica (La Selva) region spans more than 840,000 hectares, and consists of coastal, wetland, and tropical forest ecosystems. Beginning at the Rio Grande de Matagalpa and Cerro Wawashan in the north and extending south to Costa Rica and west to Lake Nicaragua, the region includes the Los Guatuzos and San Miguelito wetlands and the Solentiname archipelago of Lake Nicaragua, and represents one of the most untouched areas of Mesoamerica.

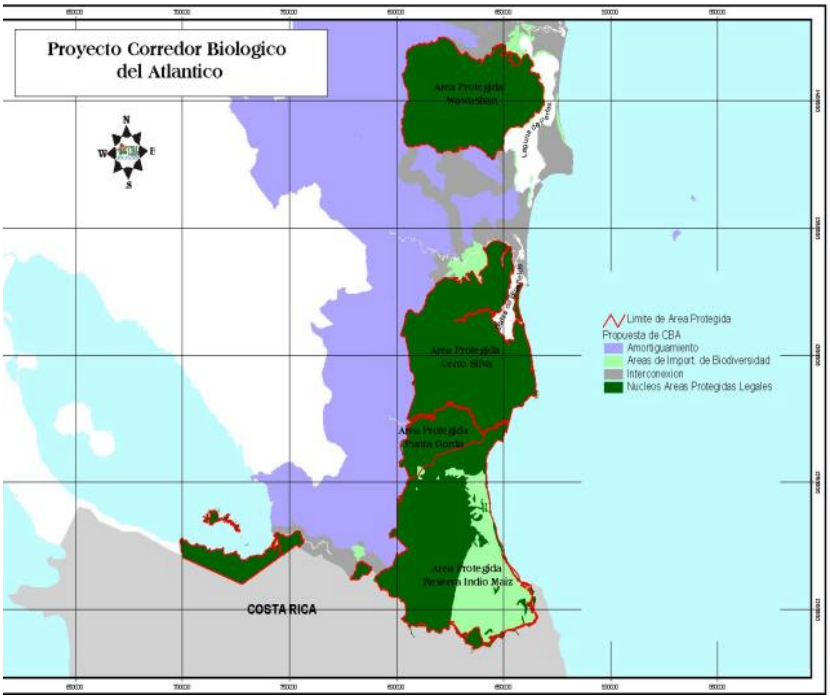

Figure 1: Atlantic Biological Corridor

Talamanca-Osa Corridor

This corridor spans more than 100,000 hectares and links the southern Pacific coast of Costa Rica with the expansive Talamanca mountain range. It includes the Osa Peninsula and the Piedras Blancas National Park.

Talamanca-Bocas del Toro Corridor

Including the La Amistad Biosphere Reserve, this region of more than one million hectares connects the Talamanca mountain range with the Caribbean coastline and wetlands of northwestern Panama. This area includes the Ngobe indigenous territory.

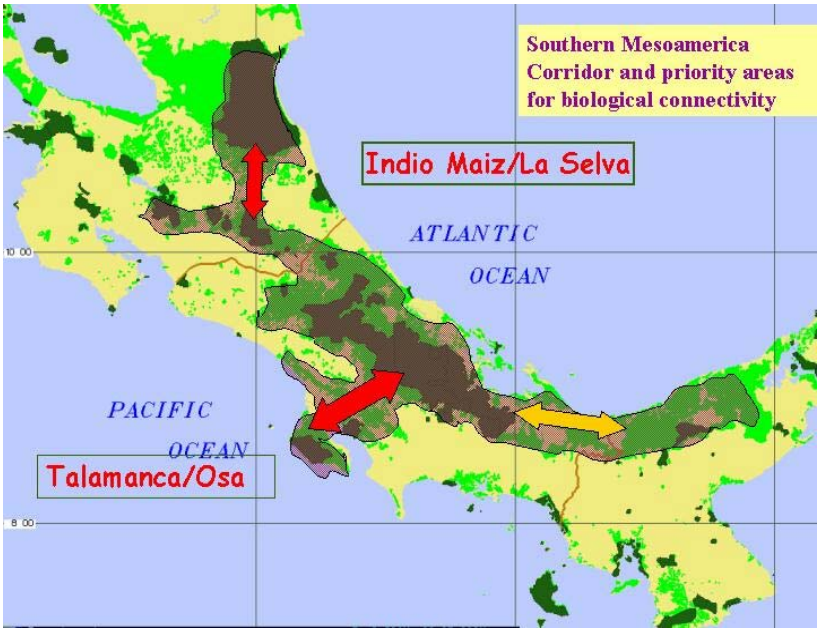

Figure 2: South Mesoamerica (Corridors of Talamanca/Osa, Indio Maiz/La Selva, Talamanca/Bocas del Toro)

Status of Protected Areas in Mesoamerica

Although many Mesoamerican countries declared protected areas in the 1950s and 1960s for recreation or outstanding archeological monuments, new protected areas were not established until the mid-1970s following the of rapid natural resource deterioration. Currently, the Central American System of Protected Areas (SICAP) includes 411 declared and 391 proposed protected areas, covering 9.5 million hectares or 19% of the region. Of these, 70 are national parks (3.6 million hectares); 45 are biological reserves (460,000 hectares); 43 are forest reserves (1.4 million hectares); 71 are wildlife refuges (490,000 hectares); 32 are special protection zones (310,000 hectares); 37 are archeological areas; 12 are recreation areas; 15 are wetlands; and six biosphere reserves. The region includes at least 37 Ramsar sites and seven World Heritage sites.

Costa Rica leads the region in protected areas as a percentage of total land, with 132 protected areas covering 12,295 square kilometers (24% of the country's land). Guatemala is next, with 34 protected areas covering 24,564 square kilometers (23%); Nicaragua has 73 protected areas covering 21,888 square kilometers (17%); Panama has 12,957 square kilometers of protected areas within the hotspot (29% of the Mesoamerica hotspot portion of Panama and 17% of the country as a whole); Belize has 14 protected areas covering 2,397 square kilometers (10%); Honduras has 8,636 square kilometers (8%); and El Salvador has so little habitat left that only 52 square kilometers are protected, representing less than 3% of the country.

It is important to note that two-thirds of these areas each protect less than 10,000 hectares; only 38 areas protect more than 50,000 hectares. About half of these protected areas have prepared management plans — generally with minimal funding for implementation — and it is estimated that about one-third of have no on-the-ground institutional presence within them. Costa Rica's protected areas are notable for the size and technical capacities of their personnel, but across the region few protected areas have adequate staff and most managers are insufficiently trained. More than 23 distinct ethnic groups live within the region's protected area system. Tourism

brings approximately 1 million visitors per year to these protected areas, especially in Costa Rica.

While these numbers may seem low, it should be noted that in 1987, there were only 220 protected areas in the region, covering only 10.8% of the land. The progress made in the 1990s should be recognized; yet it is essential to reinforce the protection of those areas already declared. An overview of the protected areas in this ecosystem profile's area of focus is shown in Table 1.

Table 1: Protected Area Extension in southern Mesoamerica

Country	Declared PAs	Proposed PAs	Land Coverage	Hectares (millions)
Nicaragua	75	21	18.2%	2.2
Costa Rica	126	0	30.5%	1.6
Panama	42	25	26.0%	2.0

The full list of protected areas in the ecosystem profile's area of focus is in Table 2.

The movement for private protected areas is growing rapidly in Mesoamerica, especially in Costa Rica. The Costa Rican Association of Private Protected Areas has registered more than 81 private protected areas, and similar groups are just getting started in Nicaragua and Panama.

All seven Central American nations have ratified the Central American Biodiversity Treaty, and in 1997 all Central American presidents agreed to support the Central American Protected Areas System and the Mesoamerican Biological Corridor. This example of regional cooperation was reaffirmed in March 2001, and reflects a strong commitment to environmental problem-solving at the regional level.

Table 2: Protected Areas in the Southern Mesoamerica Corridor

CONSERVATION REGION	HECTARES	PROTECTED AREA	HECTARES
La Amistad Biosphere Reserve	1,081,710		
Costa Rica	676,859	Chirripo National Park	50,358
		Cahuita National Park	1,106
		La Amistad International Park	199,147
		Barbilla National Park	11,944
		Tapanti/Macizo Muerte National Park	58,246
		Los Santos Forest Reserve	59,972
		Hitoy Cerere Biological Reserve	9,950
		Las Tablas Protected Area	19,926
		La Marta Wildlife Refuge	1,290
		R. Navarro/R.Sombrero Protected Area	6,463
		R. Tuis Protected Area	4,113
		Wilson Botanical Gardens	140
		Ujarras Indigenous Reserve	19,040
		Salitre Indigenous Reserve	11,700
		Cabagra Indigenous Reserve	27,860
		Chirripo Indigenous Reserve	96,796
		Tayni Indigenous Reserve	16,216
		Telire Indigenous Reserve	16,296
		Talamanca Indigenous Reserve	66,296
Panama	404,851	La Amistad International Park	207,000
		Baru Volcano National Park	14,000
		Palo Seco Forest Reserve	125,000
		San San Pond/Sak Wetland	16,125
		Bastimentos Marine Park	13,226
		Naso Indigenous Territory	10,000
		Fortuna Forest Reserve	19,500
Bocas del Toro	100,000	Ngobe-Bugle Indigenous Territory	
Corcovado/Piedras Blancas	66,525		
Costa Rica		Corcovado National Park	42,500
		Piedras Blancas National Park	14,025
		Corcovado/P. Blancas Corridor	10,000
Indio Maiz/Si-a-Paz	841,408		
Nicaragua	720,960	Indio Maiz Biological Reserve	263,980
		Punta Gorda Nature Reserve	54,900
		Cerro Silva Nature Reserve	339,400
		Solentiname Nature Monument	18,930
		Los Guatuzos Wildlife Refuge	43,750
Costa Rica	120,448	Tortuguero National Park	29,067
		Barro Colorado Wildlife Refuge	81,210
		Caño Negro Wildlife Refuge	10,171
		Maquenque National Park (proposed)	
TOTAL	2,089,643		

SYNOPSIS OF THREATS

Today the Mesoamerican region has a population of approximately 127 million people — descendants of Europeans, Afro-Caribbeans, and many indigenous groups. Nearly half of Mesoamerica's people live in rural areas, where they depend directly on local natural resources. The sustainable management of these resources is compromised by small-scale subsistence activities and by major industrial activities, both arising from economic and social policies. Poverty and low levels of economic development lead to survival tactics that do not support conservation. Poverty is a major factor in hunting, illegal logging, archeological poaching, and illegal encroachment (squatting). The effect of poverty on sustainable resource management is noticeable in both Costa Rica, in areas such as Río Banano on the Atlantic side or the indigenous territory of Cabagra on the Pacific side, and in Panama, in areas such as Batipa and Chorega in the province of Chiriquí.

Root causes of threats to biodiversity in the region include:

- poverty
- ineffective law enforcement and administrative institutions
- strong incentives favoring extraction and forest conversion
- inadequate incentives favoring conservation
- natural disasters

Deforestation

Mesoamerica exhibits some of the highest deforestation rates in the world: from 1980-1990, deforestation averaged 1.4% per year — by some estimates, 2.0-2.5%. UNEP's State of the Environment Report finds that six million hectares of natural forest cover were cleared or burned each year from 1990-1995, resulting in degradation of 300 million hectares of forest. During the same period, Nicaragua, Costa Rica, and Panama saw annual deforestation rates of 2.3-2.5%. Today, approximately 80% of the region's original primary forest formations have been cleared or significantly modified. Many species of animal and plant are threatened with extinction. It is estimated that if deforestation continues at the current rates much of the last 20% of the region's forests will be destroyed during the first decades of the 21st century, leaving only remnants in parks and reserves — if indeed these can be protected adequately.

Deforestation in Mesoamerica is a result of interconnected trends in agriculture, poverty, land speculation, population growth, and development policy. While the national governments of the Mesoamerica hotspot have declared dozens of new national parks and reserves in recent years, many of these areas remain poorly protected. Many of the region's parks, biosphere reserves, and wildlife refuges are also home to human communities, and deforestation and environmental degradation continue despite environmental protection laws. Some of these areas are too small to provide adequate protection to the full range of their biodiversity, and are vulnerable to outside threats, especially illegal squatters and poaching. In Panama, for example, only 149 guards are assigned to 14 national parks, leaving each guard an average 9,125 hectares to patrol.

Conflicts in Legal Framework

Contradictory laws have made it difficult to carry out conservation management plans. In Costa Rica and Panama, new laws governing forest resources or the administration of indigenous

territories often conflict with prior laws. Good legislative intentions are frustrated by circumstances and existing legal frameworks that limit the applicability of new legal protection. A specific feature of legislation affecting resource management in the ecoregion is that legal management, administrative and judicial competencies, and the penalties for violations, are not always clear. Fines in Costa Rica for illegal extraction of wood are negligible in relation to profits, and management practices in protected areas must be modified to facilitate enforcement.

Illegal Logging and Squatting

Illegal logging threatens forests directly as a function of extraction and indirectly through the opening of logging roads. Roads facilitate squatting invasions by groups of people who build huts, cut trees, and settle in until they acquire rights to the land, later building more durable housing or engaging in speculation with developers.

Tourism

The government of Costa Rica promoted tourism aggressively during the 1990s, and now the tourism industry is the country's primary source of income. The industry has provided new jobs and helped to alleviate poverty, but has also led to a regulatory climate biased in favor of investors, who have been permitted to build large tourist facilities in or near sites that cannot sustain the resulting volume of human traffic. Similar situations are emerging in Panama, especially in Bocas del Toro. Municipal governments in Costa Rica and district governments in Panama, along with the national governments, assist the industry in evading regulatory requirements or in complying minimally. These threats can be addressed through the adoption of best practices in the tourism industry, particularly as it affects protected areas.

Agribusiness

Government policy also promotes agribusiness and shows favorable treatment to banana companies regarding their labor policies. In banana-producing areas along the Caribbean coast of Costa Rica and in Bocas del Toro, Panama, hiring and dismissal of staff by banana companies is deliberately irregular, ensuring that employees are exempt from labor rights granted by law. The result is an intermittently unemployed population of migrant workers and families driven to illegal extraction activities for subsistence. State-backed agribusiness also causes pollution due to the largely unregulated use of pesticides, fungicides, and fertilizers applied by aerial fumigation. Inevitably, toxic residues end up in wastewater and rivers, ultimately poisoning and killing coral reefs such as those off Cahuita, Costa Rica.

Administrative Corruption and Inefficiency

Many experts also mention alarming levels of institutional corruption at both national and regional levels, and hold this responsible for the ineffective control of logging. There are indications that the approval of forest management plans is plagued with corruption in Costa Rica. Specific studies, such as the one on the Talamanca-Caribbean Corridor in the Atlantic, document these levels of corruption in which authorities are not properly certified, tags used to mark trees for cutting are reused, and logging permits are reused for different and unauthorized areas.

Administrative inefficiency in both countries undermines the effect of protected areas. Management plans for protected areas in Costa Rica and Panama are nonexistent, outdated, or

inefficient, and conservation efforts in protected areas are often improvised and lacking in clear guidelines.

Hydroelectric Dams

Huge hydroelectric projects are planned in the ecoregion, especially in the Talamanca Mountains and in Costa Rica's Boruca region. While these projects could have some positive impact, there is concern that they may have a direct effect on particular ecosystems and the rights of indigenous peoples whose territories will be partially flooded.

Oil Drilling and Pipelines

Both countries have an interest in oil exploration and in the possible drilling that could result. Although there is no specific project under way, there are antecedents in the Talamanca region showing that such a project can affect the ecology and the surrounding indigenous societies. Pollution from oil drilling would be disastrous for the marine and coastal ecosystems in the Caribbean off the coasts of Costa Rica and Panama. A proposed pipeline from the Pacific to the Atlantic, most likely running from southeast Costa Rica to western Panama, represents a similar threat.

Roads

A proposed "Trans-Talamanca" highway would connect southern Costa Rica with the Caribbean port of Moín, facilitating agribusiness operations in Costa Rica's southern Pacific area. The highway would traverse Amistad International Park and probably several other protected areas and indigenous territories. Such highways facilitate a variety of illicit activities — illegal logging, squatting, and poaching of wildlife and archaeological resources. Roads also have direct environmental impact — in one recent case, a private road was built without any permits in the San San-Pond Sak wetlands, affecting natural drainage and placing the wetland ecosystem in jeopardy.

Mining

Mining exploration is a looming threat in the ecoregion. In Panama, large concessions such as the Colorado Peak — in the middle of Ngobe territory — have been approved. Exploitation of this peak is expected to displace five times the volume of soil and rock that was removed to open the Panama Canal. An immense portion of the ecoregion is already subject to pending requests for mining permits. Exploration is not necessarily damaging, but any resulting mining is expected to employ the "open sky" method in which vegetation and soil are removed. The future of these concessions is uncertain, and neither country has shown the political will to regulate mining to protect ecologically important areas.

Cattle Grazing

The cattle industry and associated conversion of forest land is a generalized threat throughout both countries. Ranching also contributes to erosion and soil depletion. This problem is more acute in the Pacific region of Costa Rica and Panama, but it is spreading on the Caribbean side as a result of encroachment by settlers migrating from parts of the country with a ranching tradition.

Poaching, Overfishing and Illegal Hunting

Poaching on protected or private land is common throughout the region, partly owing to inefficient enforcement. Leading factors, in addition to poverty, include cultural traits that can be addressed through environmental education. Overfishing is a similar threat in marine and coastal environments where resources such as lobster, sea cucumber, and corals are overexpoited — even when small-scale techniques and gear are employed. This affects reefs on the Atlantic and mangroves on the Pacific coast in both countries.

Weak NGO Presence

Weak or nonexistent nongovernmental organizations in the region inhibit the development of strategic alliances involving the local population — whose participation is critical to the attainment of conservation goals. Local communities in and around protected areas are not aware of the importance of biodiversity, and many regard protected areas as impediments to their economic opportunity. Conservation activities are undermined by the lack of tangible benefits to local communities. In this region, however, many people profit from enterprises affected by conservation, such as tourism. Few NGOs are in place to capitalize on such opportunities to demonstrate the value of conservation, promote benefit-sharing, or secure community support.

Land Tenure Issues

Land tenure or *latifundismo* (breakdown of land into smaller holdings) and land speculation have generated confusion and conflict in all three corridors. Many lands have been acquired spontaneously without documentation of specific claims. Sometimes land is acquired by several owners at the same time — e.g., in overlapping parcels with different owners. The national governments have carried out *latifundismo* within protected areas or areas of ecological interest, despite legal protection.

Population Growth

Population growth is very rapid in some areas, and will probably lead to increased pressure on natural resources. Areas of the Panamanian and Costa Rican Caribbean have especially experienced population growth owing to migration from areas where soils are depleted and owing to the job opportunities created by agribusiness.

Infrastructure Development

Infrastructure development is a significant threat to biodiversity if not well planned. The Plan Pueblo-Panama is an initiative catalyzed by the new administration of Mexican President Vicente Fox to spur greater economic development in southern Mexico. It is based on the economic growth theory that investments that reduce the real costs of production will have a positive impact on economic growth. The PPP represents a broad priority-setting and planning effort for infrastructure development, packaged in an omnibus proposal endorsed by the region's governments in order to seek international and domestic financing. It also hopes to serve as a long-term framework for a regional development plan. It is interesting to note that by including Central America in the plan, Mexico is — for the first time — looking at its economic interests as being influenced by its southern neighbors.

The PPP was approved by the presidents of Central America and the prime minister of Belize in early 2001, and is coordinated by the Inter-American Development Bank (IDB) with the support of an advisory committee representing the IDB, the U.N. Economic Commission on Latin America and the Caribbean, and the Central American Economic Integration Bank. The PPP is still in the early phases of government consultations with private-sector investors and initially has had high-level political support. Given the lead time required to assemble such large financing packages, there is still time for conservationists to influence the planning process in a coordinated manner. Improved communications will be needed to explain this program to the general public and local communities. Assistance will also be needed to hold these development initiatives accountable to their stated goals of sustainable development and conservation.

Specific Threats in the Cerro Silva-Indio Maiz-La Selva Corridor

To complement the work in Costa Rica and Panama, CEPF convened more than 40 stakeholders in Nicaragua for a workshop in August 2001 to learn more about the conservation needs and priorities in the southeastern part of the country, particularly the Indio Maiz Corridor. Stakeholders identified threats in the region consistent with those affecting the corridor as a whole:

- conversion of forest land to plantations and pasture;
- population growth;
- poor land use planning;
- erosion and sedimentation;
- poaching of timber and wildlife;
- lack of environmental awareness; and
- inadequate human resources to implement conservation policies.

Specific Threats in the Talamancas-Piedras Blancas-Osa Corridor

Threats in the Talamanca Mountains differ between the Atlantic region and Pacific region. Only recently has agricultural development taken place in the Atlantic region, connected to the massive migration of landless *campesinos* attracted by the possibility of vacant terrain. However, this same region was the first to undergo agribusiness development, with banana companies setting up production activities as of the beginning of the 20th century. These companies have attracted enormous migrations of national and foreign labor, but as enclaves unconnected with national production, they have no great impact on the regional economy and well-being of the population. Thus, the region has experienced economic development but not real development, with one of the most palpable consequences being that it is among the poorest in Costa Rica. Delayed agricultural exploitation in the Costa Rican Atlantic region also explains why large tracts of forest are better preserved, which in turn explains the survival of important indigenous communities.

The most visible threats in the region include:

- fronts of colonization and agriculture;
- uncontrolled colonization accompanied by serious problems of land titling and corruption;
- marijuana production in the Alto Telire region and the presence of drug traffickers with sophisticated arms;
- unregulated growth of the hotel industry in coastal regions;
- mining throughout the Atlantic region;
- extensive mobilization of people and interests, creating pressure to open roads and build infrastructure; and
- construction of hydroelectric dams.

Unlike the Atlantic region, the Pacific coast was developed early. Cattle grazing has been present since the 18th century and roads between Costa Rica and Panama were opened in the 17th century, although the highway itself was actually built between 1945-'60. This has been a destination of massive campesino migration since the 19th century, with adverse impact on forests.

In this sector threats are fairly well controlled, without the land tenure and occupation disorder characteristic of the Atlantic region. Current threats include:

- forest fires and fires in areas of natural pasture;
- poaching, facilitated by inadequate law enforcement;
- usurpation of land in indigenous territories;
- agricultural colonization in the Pacific region within Panama; and
- the weak management category (and corresponding lack of human resources) assigned to Las Tablas Protected Zone.

Specific Threats in the Talamancas-Bocas del Toro Corridor

The province of Bocas del Toro has experienced a situation comparable to that of Costa Rica's Atlantic zone, since banana companies have been active in the area since early on. Likewise, this region is relatively isolated from the rest of Panama (before the road to Gualaca was built the only way in was through Costa Rica), and its social fabric is multi-ethnic, including indigenous, black, campesino and Creole peoples. As in Costa Rica, the presence of banana companies has created an economic enclave with no clear impact on development in the region, although it has generated employment. The presence of indigenous groups in the region (Naso, Ngöbe-Buglés) has also represented a positive factor for maintenance of significant forest cover, although it appears that accelerated processes of change are occurring in the cultural patterns of these peoples, thus eroding their presence as a conservation opportunity. Threats to this region have included:

- the opening of roads;
- small migrations from other regions of Panama or from other countries;
- an extraordinary rise in tourism and unregulated development of infrastructure, problems of land tenure and land speculation, and the absence of studies that can be used to monitor regions with substantial tourist traffic;

- over-exploitation of marine resources (e.g. lobster) in demand in the tourism industry;
- inadequate regulation and enforcement;
- contamination by banana companies; and
- mining and oil interests.

Specific threats within the Talamancas-Bocas del Toro Corridor in the Ngöbe-Buglé Indigenous Territory

Only recently created, the Ngöbe-Buglé district has reconfigured Panamanian territory, particularly the limits of the Bocas del Toro and Chiriquí provinces. Although the district is also situated in the Talamanca mountain zone, spanning both slopes, it should be considered separately due to its culturally different population and the distinct stakeholders — local, regional and district congresses — making up the political and administrative structure of the region, and due to certain distinct problems. Biologists cite, for example, "loss of the culture of the indigenous population." While in anthropological terms this is considered cultural change rather than "loss," the romantic idea that *indigenous* is equivalent to *conservation* can no longer be sustained. Indigenous cultures also have problems of resource deterioration and inappropriate land use. The phenomenon can be viewed as a challenge to find livelihood and practices culturally adapted to the Ngöbe-Buglé population in order to support conservation, educate about the environment, reassess sustainable practices of the past and seek new solutions to new problems that they are also experiencing.

Despite the special legal regime, it should be noted that the effectiveness of norms is not automatic and the region has countless problems concerning land tenure and usurpation by the non-indigenous. In addition, some non-indigenous people possessed land before the declaration granting district status to the area. These holdings remain in an ambiguous situation, and the state has neither possibilities nor interest in recovering them.

SYNOPSIS OF CURRENT INVESTMENTS

Several broad reviews have been conducted to survey conservation funding in the region that can provide an idea of funding trends. In 1989, Abramovitz conducted a survey of U.S.-based donor institutions. Results indicated 873 active projects worth $37.5 million, of which half were dedicated to Latin American and Caribbean (LAC) projects. Costa Rica was identified as a leading recipient of funding. A follow-up survey indicated $62.9 million in investments, with 27% of the funding in the LAC region, the majority going to Costa Rica, Mexico, and Brazil.

USAID, the World Bank, and the Biodiversity Support Program conducted a more comprehensive review of conservation funding in LAC in 2000. From 1990 to 1997, Central America and Mexico received $1.13 billion (35%) of the funding in the region. The leading donor agencies in the region were the World Bank, the IDB, German Technical Cooperation (GTZ), and U.S. Agency for International Development, and more than 90% of all funding came from bilateral and multilateral donors or programs. Natural resource management and protected areas received over 70% of the funding, with policy, research, capacity-building, and sustainable development each getting less than 10%.

Conservation investments in southern Mesoamerica are shown in Table 4.

Table 4: Conservation Project Financing in Southern Mesoamerica

COUNTRY	VALUE (US$)	PROJECTS	% OF REGIONAL FUNDING	RANK IN REGION
Nicaragua	$85.7 million	46	3.0	12
Costa Rica	$110.4 million	190	3.8	8
Panama	$103.7 million	55	3.6	9

While admittedly a broad overview of funding trends, these figures reflect the level of investment across the region, and help put into perspective the programs of specific donors described below.

Multilateral Donors

Global Environment Facility: The GEF has been the largest single supporter of biodiversity conservation efforts in Mesoamerica. Since 1990, the GEF has provided about $120 million to support conservation in the region. Part of this investment was used to launch the Mesoamerican Biological Corridor program to protect the biodiversity of this important ecoregion. This program is one of the most ambitious environmental and social programs in Central America and southern Mexico; its goal is the recovery of the chain of forests that, until recently, united South and North America. GEF is currently contributing almost $11 million to efforts overseen on the ground by UNDP. Other sources of support for the effort include the World Bank and DANIDA, the Danish government aid agency.

This effort began in 1989 when Central American presidents signed the Central American Environmental Protection Agreement and established the Central American Commission on Environment and Development (CCAD). Since then, a culture of cooperation has characterized the work of environment ministries in the region. That the region speaks with one voice on environmental matters has been evident in the development of the Central American Environmental Agenda, which provided the basis for joint regional positions at the 1992 U.N. Conference on Environment and Development (the Rio summit).

CCAD, elevated to an environmental secretariat within the Central American Integration System (SICA), a revived regional integration movement, has been instrumental in strengthening the united regional voice at international forums. It has also strengthened the countries' environment ministries and stimulated many regional activities, including the MBC initiative.

The World Bank: The World Bank recently issued its first environmental strategy for the LAC region. The World Bank has also supported several non-lending services (providing technical assistance) in the development of national policies and studies in the region. Projects in the Profile's area of focus include a biodiversity project in Costa Rica funded in 1998 for $7 million; a biodiversity project funded in 1998 in Nicaragua for $7.1 million, and three agriculture and forestry projects approved in 1994, 1999, and 2000 for $106.6 million; and a biodiversity project in Panama approved in 1998 for $8.4 million. Projects approved in 1997 and 1999 for rural poverty reduction support several small projects in the three corridors, in addition to a protected areas management program at the Fort San Lorenzo World Heritage Site with a budget of $23.2 million.

The World Bank's LAC strategy for 2001-2006 will focus on improvement of people's health by reducing exposure to harmful environmental factors; enhancement of livelihood through

sustainable management of natural resources; development of frameworks for sound environmental management; and facilitation of equitable solutions to regional and global challenges so that future generations are guaranteed at least the same opportunities as present generations. Specific efforts will focus on areas of highest social cost by improving human health, livelihood, and environmental management. The highest priorities for the World Bank in Mesoamerica include sustainable integrated natural resource management; disaster response; targeted institutional development; and biodiversity conservation.

European Union: The EU has also funded projects in the three corridors, including work in the Rio San Juan area in conjunction with the Association for Cooperation in Africa and Latin America, support for the Indio Maiz Biological Reserve, and others. DANIDA is also funding a $2.7 million sustainable development and natural resource management project in southeastern Nicaragua.

UNDP/GEF Small Grants Program: The SGP is an important source of project funding for NGOs and communities in the region. The second phase of the SGP in Costa Rica has funded 61 projects targeting community development and management of natural resources near protected areas. Projects include development of ecotourism enterprises and training; alliance-building and partnerships are an integral part of all projects.

Private Foundations

The MacArthur Foundation: The John D. and Catherine T. MacArthur Foundation has a program focusing on Conservation and Sustainable Development that has given grants in Mesoamerica. Although the Mesoamerica Region is not currently a geographic priority for the MacArthur Foundation, they have contributed a significant amount of investment in the region — particularly in the Mayan Forest — to address issues related to rapid growth in population and increasing demand for resources. To address this challenge and to increase understanding of the strong relationships between the health of the biosphere and the welfare of human communities, the Foundation has established the Conservation and Sustainable Development area. This area is dedicated to conserving biodiversity, to enhancing knowledge of how to use natural resources sustainably over the long term, and to promoting sustainable economic growth with social equity.

Many private foundations support projects in the region, according to their own institutional agendas. The Kellogg Foundation, the Ford Foundation, and the National Fish & Wildlife Foundation all fund programs in this Profile's focus areas. Citizen exchange programs are also active, especially the "Sister City" network and Rotary Clubs. The National Geographic Society has funded scientific research in the Indio Maiz Biological Reserve.

National Governments

Germany (GTZ and other agencies): The German government is a major donor in Mesoamerica, with a goal to support balanced economic and social development through "help for self-help." Based on the spirit and resolutions of the Rio Conference (1992) and the international conventions on climate and biodiversity, one focus of German support is the protection of the environment and sustainable management of natural resources and environmental services. Projects in the focus area of this ecosystem profile include:

Nicaragua: *Sustainable Agriculture and Forest Management in Rio San Juan,* whose goal is to support sustainable agriculture in the southeastern Nicaragua.

Costa Rica: *Cooperation in the Forestry and Wood Sectors (Coseforma)*, whose goal is to promote sustainable management of forest resources through mechanisms that add value to their products and services. The project contributes to the development of public- and private-sector forestry (plantations, primary and secondary forest conservation, processing and marketing of wood products, and forestry policy), and will end in December 2001.

Panama: *Natural Resources Management in the Ngobe-Bugle Province*, whose goal is to promote the economic and social development of the indigenous Ngobe people through sustainable management and conservation of natural resources. The project is implemented by ANAM with assistance from GTZ.

The German government also supports several regional projects in Mesoamerica, including substantial assistance to the Mesoamerican Biological Corridor (MBC) through support for CCAD and funding for national-level MBC coordinators. Other regional programs includes a project in ecotourism; support for the Center for Research and Training in Tropical Agriculture to assist small agribusinesses in the use of non-chemical alternatives to pesticides; and a project to improve environmental management in small to medium-sized industries in Central America. Other projects have focused on agroforestry techniques, watershed management, and training in sampling methods and statistical analysis.

U.S. Agency for International Development: USAID has environmental programs in Nicaragua and Panama. The environmental portfolio in Nicaragua focuses on NGO co-management of protected areas, supported by a project implemented by Associates in Rural Development in six specific protected areas (none in this ecosystem profile's focus area). In Panama, the USAID environmental program focuses exclusively on the Panama Canal watershed and on environmental interpretation and outreach. USAID's regional environmental program, PROARCA, focused on five priority coastal zones — two of which are in the focus areas, Bocas del Toro and southeast Nicaragua — as well as protected area policy issues such as ecotourism, green marketing, and training. The program's protected area components were implemented by a consortium of the Nature Conservancy, the World Wide Fund for Nature, the University of Rhode Island, and the International Resources Group. PROARCA concluded its first phase in September 2001; however, USAID is now in the contracting phase of a second PROARCA program with similar objectives.

While officially ending development assistance programs in Costa Rica in 1995, the U.S. and Costa Rican governments established the Costa Rica-U.S.A. (CRUSA) Foundation to support projects in institutional development, globalization, the environment, science and technology, and education. Since 1997, CRUSA has provided over $6 million to projects in Costa Rica.

Like the CRUSA Foundation, the Nature Foundation (Fundación Natura) was set up by the USAID program in Panama as an endowment to support conservation work there through a small grants program. Since its inception in 1995, it has supported over 60 projects outside the Canal

Zone with a total budget of nearly $3.5 million. Project support is available to NGOs, municipal groups, and universities, and usually focuses on community-based resource management, agroforestry, research and monitoring, and protected area management.

The U.S. government also maintains an "environmental hub" at its Embassy in Costa Rica to monitor regional issues and provide support in the negotiation of treaties.

Spanish Agency for International Cooperation (AECI): AECI maintains an active program in the region for environmental and cultural conservation. In Nicaragua, AECI has provided several years of support to work in southeast Nicaragua to develop a management plan for the Rio San Juan Wildlife Refuge and the conservation of Los Guatuzos wetlands, as well as major support for the management of Indio Maiz Biological Reserve. A new project funded in Nicaragua, the Araucaria project, also supports conservation work.

The Netherlands: The Dutch government has a large environmental program in the region, with a focus on wetlands conservation and strengthening the work of civil society through NGOs and municipalities. Some Dutch assistance is provided via UNDP country programs. Several Dutch-funded wetlands conservation and community development projects on the Atlantic coast of Nicaragua will end soon, including the Forest Development Project of the Atlantic Coast (PROCODEFOR).

Norway, Sweden, and Finland: These countries support large environmental programs in Nicaragua focusing on systemic issues such as information gathering and dissemination, strengthening of MARENA and the development of a biodiversity action plan for Nicaragua. Working with the Central American office of the IUCN, the Norwegian government is working on a new project in the Rio San Juan area of Nicaragua to support sustainable community management of natural resources. The project is now finishing the first phase of data collection and establishing indicators while negotiating details of the second phase. Ground-level focus areas include two in this Profile's focus area, Rio San Juan (Nicaragua and Costa Rica) and the Caribbean watersheds of La Amistad (Costa Rica and Panama), with a third site at Barro de Santiago (Guatemala/El Salvador).

Nongovernmental Organizations

Many NGOs implement conservation programs in the region and, in the case of Nicaragua and Panama, some even manage protected areas. In southeast Nicaragua, a coalition of universities and NGOs is working to share information on research and monitoring in the Indio Maiz Biological Reserve. A group of NGOs working across Nicaragua, Grupo Guardabarranco, coordinates and promotes bird conservation. The Cocibolca Foundation in Nicaragua is developing a training program for conservation biologists, supported by the National Fish & Wildlife Foundation. NGOs with experience working in southeast Nicaragua include Fundación Amigos del Rio San Juan (FUNDAR), which works in partnership with the Spanish chapter of Friends of the Earth; the Fundacion del Rio; the Association for Rural Cooperation in Africa and Latin America; Fundeverde, the Independent National University of Nicaragua (UNAN) at Leon; and Nicambiental.

A new partnership is coordinating activities along the Rio San Juan/La Selva corridor to establish

the Maquenque National Park. The partners — including the World Wide Fund for Nature, Wildlife Conservation Society, Organization of Tropical Science, the Government of Costa Rica, and the Coseforma project — envisage a comprehensive conservation program to manage this protected area, an important block of 25,500 hectares along the San Juan River between the Atlantic forests of Costa Rica with southeast Nicaragua and the larger Indio Maiz Biological Reserve.

In the southern Pacific region of Costa Rica, the ACOSA Alliance is working to coordinate action on the Osa Peninsula and in Corcovado National Park. The Alliance includes the TUVA Foundation, the CRUSA Foundation, the Corcovado Foundation, InBio, the Cecropia Foundation, the Neotropic Foundation, the Environmental and Natural Resources Law Center (CEDARENA), the Nature Conservancy, Conservation International, the Costa Rica office of the MBC, and several municipal groups, with minimal organizational support and coordination from CRUSA and GTZ. CRUSA is also working with other international groups, including Conservation International and an international steering committee, to establish an endowment for the management of Corcovado National Park. CRUSA has pledged $3 million in matching funds for this effort.

In Panama, many NGOs work in the terrestrial areas of the Bocas del Toro region, including the National Association for the Conservation of Nature (ANCON), ANAI, Fundespa, the Panama Audubon Society, and many community-based and indigenous groups. On marine conservation, ANCON and Promar both implement projects. Panama's Atlantic Mesoamerican Biological Corredor program has a portfolio of over thirty small, community-based projects in the region, and Conservation International has supported training in ecotourism and traditional medicine for the last five years. The World Bank also has a poverty alleviation project that supports small natural resource management projects developed by community groups. The Nature Conservancy and PROARCA have supported the development of management plans for the Bastimentos Marine Park and the San San wetlands.

The Alianza del Sur formed in early 2001 to develop a comprehensive action plan and to coordinate conservation activities in the region. Partners include Conservation International, the Nature Conservancy, the World Wide Fund for Nature, and the Wildlife Conservation Society in conjunction with regional government projects such as Panama's Atlantic Mesoamerican Biological Corridor, the Mesoamerican Biological Corridor Program, and the environmental ministries of Panama and Costa Rica. This is the first time such a broad alliance of NGOs has been convened to analyze and prioritize conservation actions. Through a series of priority-setting workshops, supported by all the leading agencies, the Alianza assessed the status of the Talamanca ecoregion, and the Atlantic and Pacific lowlands of both countries, including the Osa Peninsula and Bocas del Toro. In a series of expert workshops, this group identified, on a very fine scale, the leading threats, conservation gaps, and existing conservation investments and priorities in this region.

The final report and action plan are expected in late 2001, and will serve as important tools for targeting new conservation investments in the focus area of this Profile. The study recommends two important corridors: the Piedras Blancas-Corcovado corridor in the Osa Peninsula, extending up to the Talamancas, and the Talamanca-Bocas del Toro corridor in the north.

To complement the work in Costa Rica and Panama, CEPF sponsored a stakeholders' workshop in Nicaragua in late August 2001 to learn more about conservation needs and priorities in the southeast region. Results of this process identified gaps and helped determine possible opportunities for CEPF investment in the Indio Maiz portion of Nicaragua:

Table 5: Summary of Results of CEPF Stakeholder Workshop in Nicaragua

Threats	Stakeholders	Gaps	Potential CEPF Niche
▪ Land-use change due to expanding agriculture frontier ▪ Population growth ▪ Lack of land-use planning ▪ Cattle ▪ Large agricultural development projects (citrus) ▪ Fire ▪ Sedimentation ▪ Illegal logging and poaching of wildlife ▪ Lack of environmental awareness or appreciation ▪ Lack of trained conservationists	▪ Fundeverde ▪ FUNDAR ▪ APDS ▪ Solentiname Tours ▪ ACRA ▪ IUCN ▪ Fundacion del Rio ▪ Association of Solentiname Artisans ▪ CENADE ▪ Nicambiental ▪ Many organized community groups ▪ AMEC ▪ Indio Lodge ▪ UNAN/Leon ▪ CATIE ▪ Biostation Guises de Montana ▪ Universities, like UNAN/Leon and URRACCAN	▪ No funds for coordination ▪ Little value or awareness of the value of the region's biodiversity ▪ Lack of protected area management actions ▪ No regional or municipal development plans ▪ No strategy or coordination for research and monitoring ▪ Need for coordination between Nicaragua and Costa Rica ▪ Weak infrastructure and training in ecotourism ▪ Uncertain land tenure and conflicts	▪ Support a coordinating group for SE Nicaraguan conservation actions and support for alliance building ▪ Support community outreach and education efforts ▪ Provide funds to implement management plans ▪ Funding for biodiversity research, coordination, and communication ▪ Provide training in community-based ecotourism development ▪ Support community-based conservation effort and regional planning

Central American Commission for Environment and Development: Regional governmental cooperation on natural resource management and conservation has its roots in the 1994 Concausa agreement between the U.S. and Central America. Following decades of armed conflict, which affected the entire region, the leaders of Central America established the Alliance for Sustainable Development (ALIDES) and committed themselves to manage their resources in a more sustainable manner through a common mission to promote democracy, social and cultural development, sustainable economic development, and the sustainable use of natural resources. In 1994, the U.S. became the first extra-regional government partner by signing the Concausa accord. After Hurricane Mitch, in May 2000, a new focus area was added to the ALIDES strategy to reduce vulnerability to natural disaster.

Among the ALIDES conservation objectives is the creation of the CCAD, also supported by the GEF, representing the environmental ministries of all seven countries in the region.

The CCAD has a professional staff based in San Salvador, divided into four operational units: biodiversity, environmental legislation, training and information dissemination, and environmental communications. Their mission is to promote a united political agenda from the region's environmental ministers. The biodiversity unit's most important duties are to provide follow-up to regional biodiversity treaties such as Ramsar, CITES and the CBD. Current priority projects include the definition of a regional environmental strategy and the implementation of a

regional environmental information system called SIMEBIO. The environmental legislation unit provides training to judges and legislators in environmental law, while the communications unit works to implement a Central American consultative forum and supports the SIMEBIO monitoring network.

To date, the CCAD's activities have focused on coordinating and promoting environmental policies, but have received little input from the NGO sector. The gap between public policy in the region and the views of civil society presents a niche where CEPF investment can improve communication and support the full exchange of ideas on conservation issues.

Regional projects led by the Wildlife Conservation Society in the USAID-funded Paseo Pantera ("Path of the Panther") project first promoted a Central American biological corridor, and led to the wide adoption of a conservation network extending from southern Mexico all the way to the Darién forest of Panama. In 1997, the Central American presidents adopted this concept, known as the Mesoamerican Biological Corridor.

In order to support the agenda of CCAD and the Central American Protected Areas System, the World Bank, UNDP/GEF, and UNEP has approved an expansive conservation and sustainable development initiative across the region. Its mission is to consolidate the regional biological corridor for conservation, and it is intended to strengthen management of areas within the MBC, economic viability of the MBC, support for the corridor concept by the Central American public, and technical capacities of the region's policymakers.

The project has a central staff based in Managua, Nicaragua, with national representatives in each capital and a counterpart staff person provided by each country. The World Bank provides $200 million in assistance and is the implementing agency for nearly $40 million in ongoing national and regional GEF grants, with another $50 million in the pipeline. In 1999-2000, the World Bank also provided trust funds worth $6 million to support regional activities for the consolidation of the MBC. Germany's GTZ also provides important financial support to the initiative. Most of this funding, however, is directed to government agencies. These large donor projects usually contain a civil society component. CEPF efforts in the region should identify mechanisms by which civil society can better coordinate the MBC and CCAD and should secure matching funds for NGO-led activities within the region.

The MBC project supports the conservation work of CCAD in 11 priority transboundary areas. The foci within this Profile's area of interest include southeast Nicaragua and La Amistad (both Atlantic and Pacific). Other project areas in Mesoamerica include the Selva Maya, Lacandon/Montes Azules, El Triunfo, the Gulf of Fonseca, La Flor/Guanacaste, Bosawas, and the Darien.

Given inadequate coordination and information-sharing, an important part of the MBC project's goals is to coordinate the many conservation and sustainable development projects in the region, and to support synergies among programs. In Nicaragua, Panama, and Costa Rica alone, there are more than 43 major donor initiatives funded by the World Bank, the German government, UNEP, UNDP, GEF, and CCAD.

A summary of these projects in the Profile's focus region is presented in Table 6.

Table 6: Multilateral Donor Projects in the Southern region of Mesoamerica Affiliated with CCAD (World Bank, UNEP, UNDP are executing agencies for GEF funding)

COUNTRY	GTZ	WORLD BANK	UNEP	UNDP	GEF	CCAD
Nicaragua	Bosawas Southeast Southwest	MBC/Atlantic National Corridors	Rio San Juan Watershed Project	Coastal Zone ProRaas	Green Munis Atlantic Biodiversity Corridor National Biodiversity Strategy and Plan MDI-Sustainable Harvest and Processing of Coffee and Allspice	Progolfo
Costa Rica	Coseforma Clean Air IICA CATIE Organic Agriculture Municipal development	Green Markets InBio	Rio San Juan Waterhed Project	Talamanca Great Green Macaw	INBio - National Biodiversity Strategy CBTC-Talamanca-Caribbean Biological Corridor FONAFIFO-Green Markets	Prosiga Simebio Agua
Panama	Cerro Hoya Chiriqí	Rural Poverty MBC		BioDarien Environmental awareness	ProDarien ProNat Atlantic Biological Corridor Project Climate Change Convention on Biological Diversity Community Participation of the San Lorenzo Protected Area Capacity Building	

CEPF NICHE FOR INVESTMENT IN THE REGION

Because CEPF funding in the hotspot represents a relatively small addition to the resources directed toward conservation in the region, it is critical that funding be targeted for maximum leverage through other initiatives and to add value to ongoing efforts led by civil society. The situation requires CEPF participants to demonstrate their role as catalysts through innovative approaches to conservation planning and action.

CEPF investment in Mesoamerica is based on detailed priority-setting and participatory stakeholder consultation processes conducted in the region. By building on these collaborative

processes, reviewing the thorough assessments of threats to biodiversity, and analyzing current investment and activity in the region, CEPF has determined a unique niche for value-added conservation investment in southern Mesomerica. CEPF's specific niche is to support civil society efforts in conservation and provide linkages in otherwise fragmented approaches to conservation in the area — and, most importantly, to stimulate actions in bottom-up conservation in three targeted corridors to minimize extinction in a rich biodiverse flora and fauna, by empowering local stakeholders to embrace conservation.

CEPF will make targeted investments to strengthen civil society participation in these efforts and to catalyze a few key initiatives. The larger investments already in place in the region must be grounded at local levels in order to succeed, and this requires a special effort to ensure that the necessary "building blocks" of conservation are in place. Therefore, the investment strategy guiding CEPF funding in the southern Mesoamerica hotspot focuses on adding value in the region by:

- promoting existing alliances and networks among NGOs, community groups, academic institutions, the private sector, and government;
- strengthening connections between corridors through innovative civil society efforts;
- building awareness campaigns focused on Central American flagship species;
- supporting improved management of key protected areas.

Identifying and focusing on these building blocks at the local level, and linking them to larger national efforts across the region, will promote regional synergy in conservation efforts at a corridor level. CEPF will succeed if it is able to strengthen a few targeted alliances in the three corridors.

CEPF will measure its success by ensuring better linkages in fragmenting conservation efforts and by strengthening on-the-ground action in three distinct corridors. Another measure of success will be the ability to increase financial and human resources committed to conservation efforts within the three-targeted areas.

A final measure of success for CEPF will be increased connections among the three corridors resulting from efforts led by civil society. If CEPF is successful in its delivery and stimulation of civil society, these effects will continue to grow.

CEPF funding in the region will focus on strategic support in southern Mesoamerica through innovative projects within three distinct corridors that improve links and stimulate bottom-up conservation. These will be directed toward supporting specific on-the-ground efforts that anchor the larger Mesoamerica Biological Corridor in the three priority corridors.

Although CEPF alone will not accomplish these objectives, it will serve as a preliminary effort to secure the following outcomes in the southern Mesoamerica hotspot:

- Through civil society efforts, major conservation areas in the region (Indio Maiz, La Amistad and Osa) will be under improved protection and management
- Civil society initiatives to ensure that protected areas viably connected through a network of public, private, and indigenous reserves
- Targeted species, such as the great green macaw, the white-lipped peccary, the harpy eagle, and the jaguar are the focus of awareness and conservation efforts.
- Major threats to biodiversity mitigated

CEPF INVESTMENT STRATEGY AND PROGRAM FOCUS

CEPF funding in the region will focus on these strategic themes:

CEPF Strategic Directions	CEPF Investment Priorities
1. Strengthen key conservation alliances and networks within integral corridors	1.1 Support existing alliances such as the Talamanca/Osa/Bocas regional alliance, Osa alliance, Northern Costa Rica working alliance to further key common agendas in advocacy, communication, and land tenure efforts through targeted civil society efforts 1.2 Create a coordinating group, led by the NGO community, that will guide conservation actions In the Cerro Silva-Indio Maiz-La Selva Corridor 1.3 Support a civil society effort to integrate and incorporate NGO concerns into CCAD and PPP efforts
2. Connect critical areas through economic alternatives	2.1 Support NGO efforts to evaluate modalities for establishing additional private conservation areas to integrate connectivity among key areas 2.2 Support civil society efforts and community efforts to establish best practices in coffee, cocoa, and tourism in areas of potential connectivity
3. Promote awareness and conservation of flagship species	3.1 Implement awareness programs focused on flagship species in order to improve public understanding of the value of biodiversity 3.2 In coordination with UNDP's Small Grants Program, establish an emergency fund to support projects that will help protect critically endangered species
4. Support improved management of key protected areas	4.1 Support civil society efforts to create participatory management plans in target areas and provide opportunities for civil society to participate in government led planning processes 4.2 Support civil society efforts to establish the Maquenque National Park in northern Costa Rica 4.3 Support civil society efforts to establish protected areas within the Ngobe-Bugle indigenous territory 4.4 Support efforts by the NGO and private sector community to provide financial incentives for private reserves and conservation set-asides 4.5 Support targeted civil society efforts to implement discreet elements of existing management plans

Strengthen key conservation alliances and networks within corridors

The concept of conservation alliances is central to CEPF approach. This objective, and opportunity, is especially pertinent to southern Mesoamerica. The success of the strategy presented in this ecosystem profile depends on increased capacity of existing NGO alliances and improved coordination projects. CEPF will focus on existing alliances working to protect the integrity of transnational corridors, which often need extra support. By working with existing alliances with a successful track record, CEPF can ensure that the organizations are committed for the long term.

Areas such as the Indio Maiz-La Selva Corridor, the southern Talamanca-Osa corridor, and northern Talamanca region between Costa Rica and Panama in the La Amistad-Bocas del Toro corridor have such alliances. CEPF funding should support the maintenance and expansion of these structures. Where there is insufficient coordination, such as in northeastern Nicaragua, CEPF should catalyze new alliances.

CEPF support for existing alliances such as the Talamanca-Osa-Bocas regional alliance — a broader working alliance of regional networks — would have a multiplier effect. This group is finalizing an Action Plan that will make specific recommendations on policy, capacity building and maximizing current investments. Very targeted support to this action plan will leverage investment from other partners such as WWF and TNC to fulfill the objectives and vision articulated as part of the Action Plan.

CEPF will support existing alliances such as the Talamanca/Osa/Bocas regional alliance of more than 80 groups representing environmental NGOs, academia, research agencies, and government agencies of Costa Rica and Panama**.** Alliance efforts that may be facilitated by CEPF grants include opportunities for targeted policy work to mitigate the impact of development projects on biodiversity; support to carry out an integral action plan; and ensuring that partners share crucial information with all participants in the alliance.

CEPF will consider supporting the Osa alliance, a geographically targeted alliance formed by civil society groups, national and international NGOs, and government agencies to protect biodiversity in the Osa Peninsula of Costa Rica. Focus for CEPF support may emphasize training to build fundraising and negotiation capacities.

CEPF support for the Northern Costa Rica working alliance, a partnership of local NGOs, research institutions, government agencies, local entrepreneurs, and international conservation groups, would enhance civil society efforts to establish the Maquenque National Park and biological corridors between southern Nicaragua and La Selva in Costa Rica.

CEPF could support the Fila Costeña environmental association, a local consortium of communities working to protect the coastal and ridge forests between the Pacific and the Talamanca Mountain Range. This region forms a natural corridor considered critical to the Osa-Talamanca-Bocas action plan.

Strengthening NGO alliances to improve conservation work will enhance partners' ability to formulate clear, coordinated strategies and to leverage CEPF investment in the region to attract targeted new investment. CEPF has the opportunity to help alliances build stronger relationships

with regional initiatives by ensuring that the alliances, as representatives of civil society, participate in existing forums, such as the CCAD initiative and the Plan Puebla Panama. This "building block for conservation" is critical to civil society stakeholders' capacity to secure necessary funding, and ultimately contributes to the sustainability of conservation efforts. CEPF will evaluate proposals that create stronger linkages between civil society efforts with the CCAD and the Plan Puebla Panama.

Equally important is the need to strengthen existing networks. For example, CEPF should provide leverage for UNDP's Small Grants Program by working with the alliance of small grants programs to maximize conservation impact in the entire region, including the corridor between La Selva and Nicaragua.

The Bocas del Toro Coalition — a consortium of governmental agencies and civil society representatives formed in 2000 — is working to improve land use patterns in the coastal region of Bocas del Toro, part of the corridor. The coalition aims to update the land use management plan designed in early 2000. CEPF support would leverage existing resources and support key civil society components of the buffer zone activities of the World Bank project in the Panamanian Atlantic Corridor. CEPF investment could also expand successful programs in this region and facilitate their replication by other groups.

Connect critical areas through economic alternatives

CEPF has a strategic role to play in southern Mesoamerica in the effort to strengthen and maintain connections between critical areas. This region contains the last remaining portions of scattered large forest tracts that connect parks and wetlands in the three countries. In the case of Indio Maiz-La Selva, the linkage is the only site in Central America where a large lowland Atlantic forest protected area (Nicaragua's Indio Maiz Biological Reserve) has the potential to maintain its ecological connection with middle-elevation and highland habitats (Costa Rica's Central Mountain Range and Braulio Carrillo National Park). CEPF will support efforts to promote the expansion and creation of private conservation areas to integrate connectivity among Piedras Blancas and Corcovado Parks. CEPF also has the opportunity to support innovative efforts to involve the private sector in conservation and demonstrate links between conservation and sound development.

The Talamanca/Osa/Bocas alliance is working to ensure biological connections between two corridors: the approximately 10,000 hectares joining the Corcovado National Park with the Piedras Blancas National Park, within the Peninsula, and a larger corridor joining the Piedras Blancas National Park on the northern part of the Peninsula to the highlands of Talamanca. One of the best opportunities to achieve this connection with Talamanca would be through best practices in agroforestry and coffee production.

A coastal and terrestrial connection between the Talamancas and the highlands and lowlands of the Tabasara Mountains in Panama — including some coastal, wetlands and marine areas — is crucial. Opportunities to create such connections lie in the Ngobe indigenous territory. CEPF should promote best practices in cocoa and organic banana production for small farmers and environmental education to secure indigenous people's stewardship of lands connecting protected areas.

The Indio Maiz-La Selva area is the most promising to connect the lowland forests of eastern Nicaragua with the middle-elevation forests of the central mountains of Costa Rica and La Selva. The major CEPF effort in this region should be to support the creation of Maquenque National Park in northern Costa Rica. Support in this strategic direction may include evaluating land tenure that will inform and strengthen efforts to establish the park.

Promote awareness and conservation of flagship species

CEPF can fill a valuable niche in Mesoamerica by supporting awareness programs built around key and endangered species such as the tapir, jaguar, white-lipped peccary, West Indian manatee, harpy eagle, scarlet macaw, great green macaw, and resplendent quetzal.

While many environmental education programs have been initiated in the MBC as a whole, CEPF would focus on targeted initiatives in the southern region of Mesoamerica that build on the characteristics of key species. RARE is one organization that has demonstrated and implemented such programs.

CEPF will also evaluate the feasibility of establishing an emergency fund for projects that support small-scale and targeted efforts to conserve critically endangered species in the southern region of Mesoamerica. This component would provide small grants (less than $10,000) to support efforts aimed at protecting the habitats of targeted species or mitigating key threats to their survival. CEPF will consider partnering with the GEF/UNDP Small Grants Program on the creation of this emergency fund. Partnering with UNDP SGP in this region would be cost-effective and ensure complementarity. CEPF and SGP in the southern region of Mesoamerica could thus also explore opportunities to leverage co-financing for projects that fulfill common criteria, and CEPF could learn from the UNDP's efforts in the region.

Support improved management of key protected areas

An additional CEPF priority is to strengthen targeted protected areas in the three priority corridors. Efforts to strengthen protected areas could include development of protected area participatory creation of management plans and capacity-building to implement them; declaration of new protected areas; and actual implementation, in the short term, of management plans. At the policy level, CEPF will assist civil society in selected protected area management planning processes.

Targeted management plans include those under development for the Talamanca ecoregion and those in southeast Nicaragua (Los Guatuzos and Rio San Juan) and northern Costa Rica. There are opportunities to create new protected areas in key parts of the MBC (e.g. Maquenque National Park).

CEPF will consider supporting the establishment of protected areas in the Ngobe-Bugle indigenous territory in Bocas del Toro. This indigenous territory is one of the largest indigenous lands in Panama with over 600,000 hectares. On its Atlantic side, large portions of forests still remain, and the indigenous leaders are willing to set aside some communal land for biodiversity conservation. The area also represents the only connection between the Talamanca Mountain Range in Panama and the forests approaching the Panama Canal watershed.

CEPF may also consider providing targeted support to aid in civil society efforts to implementation of existing management plans in key areas in Bastimentos Marine Park in Panama, La Amistad International Park in both Costa Rica and Panama, Corcovado National Park in Costa Rica, and Indio Maiz Biological Reserve in Nicaragua.

One opportunity for CEPF to support connections within the critical corridors is to evaluate opportunities to establish financial incentives for private reserves and conservation set-asides. Possible projects could establish private reserves connecting important sites.

SUSTAINABILITY

The CEPF investment strategy will be funded over five years and is part of a larger process to achieve sustainable development and biodiversity conservation in Mesoamerica. The investment strategy is designed to add value to existing initiatives and to take advantage of the groundwork laid by other programs in order to avoid duplication of efforts. By strengthening conservation alliances, CEPF will build skills and relationships that will last beyond the funding period, and by focusing its resources to leverage existing initiatives or the work of existing partnerships, such as the Alianza for the Talamanca Ecoregion and ACOSA in the Osa Peninsula of Costa Rica, CEPF can ensure that the impact of its investment will be sustained in the long term.

CONCLUSION

The Mesoamerica hotspot encompasses some of the most biologically diverse terrestrial habitat in the world. The corridors identified for CEPF investment are recognized as a priority region by a wide range of stakeholders, donors, and NGOs, and considerable funding has been invested in the conservation of Mesoamerican habitats.

The strategic niche for CEPF funding proposed herein directed to civil society efforts in conservation — to link otherwise fragmented approaches to conservation in the area, and to stimulate actions in bottom-up conservation in three targeted corridors to minimize extinction in a rich biodiverse flora and fauna, by empowering local stakeholders to embrace conservation — provides the guiding framework for CEPF investment in the region. This ecosystem profile reflects the advice of many stakeholders in the region. By supporting and strengthening forward-thinking conservationists working to protect the southern region of Mesoamerica, CEPF can wisely invest in the region's future and maximize the impact of its resources.

LIST OF ACRONYMS

ACOSA	Osa Conservation Area
ACRA	Association for Rural Cooperation in Afirca and Latin America
AECI	Spanish Agency for International Cooperation
ALIDES	Alliance for Sustainable Development
ANCON	National Association for the Conservation of Nature (Panama)
CBD	Convention of Biological Diversity
CCAD	Central American Commission on Environment and Development
CEDARENA	Environmental and Natural Resources Law Center (Costa Rica)
CEPF	Critical Ecosystem Partnership Fund
CI	Conservation International
CITES	Convention on International Trade in Endangered Species
COSEFORMA	Cooperation in the Forestry and Wood Sectors
CRUSA	Costa Rica-USA (Foundation)
EU	European Union
FUNDAR	Fundación Amigos del Rio San Juan
GEF	Global Environment Facility
GTZ	German Technical Cooperation
IDB	Inter-American Development Bank
LAC	Latin America(n) and Caribbean
MBC	Mesoamerican Biological Corridor
NGO	nongovernmental organization
PROARCA	Resource Assessment Project for Central America
PROCODEFOR	Forest Development Project of the Atlantic Coast
SGP	Small Grants Program (UNDP-GEF)
SICA	Central American Integration System
SICAP	Central American System of Protected Areas
SIMEBIO	Mesoamerican Biodiversity Information System
TNC	the Nature Conservancy
UNAN	Independent National University of Nicaragua
UNDP	U.N. Development Program
UNEP	U.N. Environment Program
USAID	U.S. Agency for International Development
WWF	World Wide Fund for Nature