PROJECT SUMMARY

PROJECT IDENTIFICATION:
1. Project Name: "Conservation of Biodiversity in the Talamanca-Caribbean Biological Corridor"
2. GEF Implementing Agency: UNDP
3. Country or countries in which the project is being implemented: Costa Rica
4. Country Eligibility: Costa Rica ratified the Convention on Biological Diversity on June 28, 1994, Act No. 7416.
5. GEF Focal Area: Biodiversity
6. Operational Program/Short Term Measures: Forest, mountains, coastal, marine, and freshwater ecosystems
7. Project linkage to national priorities, action plans and programs: Protection and sustainable management of biodiversity are national priorities as reflected in a series of laws that are in agreement with the principles and objectives of the Convention on Biological Diversity including the Organic Environmental Act (No. 7554), the Forestry Act (No. 7575), and the Wildlife Conservation Act (No. 7317). The proposed project and the strategy, objectives and activities therein coincide with and are supportive of the national priorities stipulated in these Acts. This is evident in the project strategy of achieving biodiversity conservation objectives through specific activities such as forest protection and management, biological monitoring, environmental education, and ecotourism.
8. GEF national operational focal point and date of country endorsement:

PROJECT OBJECTIVES AND ACTIVITIES

9. Project rationale and objectives:	**Indicators of success:**
The main objective of the project is the conservation, protection and sustainable use of the globally significant biodiversity of the Talamanca Caribbean Biological Corridor (CBTC).	• Percentage of existing forest cover. • Percentage of keystone species conserved.
Specific objectives: 1. Protect, preserve and restore the ecologically and globally significant forest, marine and freshwater ecotypes present in the Corridor.	• Percentage of existing forest cover. • Number of persons involved in communal projects.
2. Adopt and apply improved biodiversity friendly sustainable forest management practices.	• Increased income in the local economy due to the use of the new sustainable alternatives identified.

3. Protect biodiversity through the development, management and marketing of local and regional sustainable ecotourism products while increasing tourism based incomes. 4. Strengthen the local grassroots organizations and the state run ACLA-C (La Amistad Caribe Conservation Area) office, through the development of a co-management model for the protected areas and Corridor project.	• 25% increase in the number of tourists that visit community-based ecotourism options and entities. • No evidence of increased pressure on protected areas (illegal poaching, human incursion, land conversion and alteration). • More local grassroots organizations are incorporated in the work that the CBTC project realizes.
10. Expected outcomes: 1. Ecologically and globally significant forest, marine, and freshwater ecotypes are identified and purchased when necessary and local organizations and communities are trained and educated to protect them. 2. Sustainable forest management model developed and extended to forest resource managers, users and communities. 3. Regional and local ecotourism strategies are designed and implemented in collaboration with local communities. 4. Strengthened capacity of local organizations, communities and government to participate in the co-management of biodiversity with the CBTC.	**Indicators of success:** • Increase in population of keystone species. • Increase in the % of forest cover in the CBTC. • Number of people working in voluntary protection programs. • Number of hectares committed to the new management model. • Obligatory technical and legal regulations with respect to environmental impact for all projects being developed in the CBTC. • Percentage of visitation to different sites integrated into the ecotourism program. • 10% increase in community incomes due to the development of local ecotourism activities. • Number of people working in ecotourism projects. • Number of strengthened organizations. • Changes in legislation that favors local participation and co-management.
11. Planned activities to achieve	**Indicators of success:**

outcomes: **Output 1:** 1.1 Based on the REA (Rapid Ecological Assessment) develop community ecological evaluations in the nuclear areas to be used for the elaboration of local resource use plans (regulations and zoning) for each community, as well as to increase local knowledge about existing natural resources.	• Number of people that receive information. • Results of community workshops.
1.2 Biological monitoring methodology designed. 1.3 Biological monitoring program implemented.	• Results of monitoring program. • Monitoring program established. • **Analysis of populations of keystone** species.
1.4 Implement an environmental education program in communities that include wildlife and forestry management techniques.	• Reduction in number of environmental offenses. • Number of people who receive environmental education.
1.5 **Esta**blish a network of community natural resource guards, who manage a fund to support control and protection activities within their area of influence.	• **15 communities** participating in control and protection activities
1.6 Restoration of degraded areas in the core areas by improving soil management techniques in traditional crops, by growing crops organically, and by introducing trees into traditional agricultural and pasture areas.	• Number of hectares restored.
1.7 Aid the consolidation of a state program that pays for environmental services of forest protection and management through advertisement of the program and its benefits, and by providing technical, legal and administrative support to private land owners who wish to include their properties in any of the aforementioned programs.	• Number of hectares committed to environmental services. • Number of people benefited by program receiving payments for the environmental services being provided by their forested property.

1.8 Acquisition of strategic lands in the core areas from private landowners, when the lands include seriously threatened ecosystems and when the owners are willing to sell. The lands would be managed by local conservation organizations.	• Number of hectares acquired.
1.8 Develop a site conservation plan.	• Development of plan incluiding conservation easements and land trust.
Output 2: 2.1 Forest management model developed.	Technical document synthesizing and unifying the different programs already described, also including conservation easements and a land trust.
2.2 Forest management model disseminated via extension, education, exchange and training programs.	• Technical document that systematizes the model. • Application of the model in the field in different communities of the Cahuita nuclear area.
2.4 Market strategy developed.	Number of hectares committed to the new management model. Number of people involved.
2.5 Support of reforestation activities such as technical assistance, tree production, etc.	• New products on the market. • New income for communities from sale of products.
2.6 Funds located that assure the conservation of areas with untouched natural resources for the carrying out of sustainable development activities.	• Number of reforested hectares. • Trees produced in nurseries. • Number of hectares under conservation status.
Output 3: 3.1 Develop, together with the local communities, joint ecotourism-biological conservation strategies. 3.2 Develop community ecotourism products. 3.3 Promote and market community ecotourism products.	• Environmental benefits (Ecosystem preservation) generated by sustainable forestry production. • Document detailing strategy development. Number of products offered. • Number of visitors. Bylaws for managing the fund.

3.4 Technical and financial feasibility study for a conservation fund made up of a percentage of the ecotourism profits from participating communities; definition and execution of policies for fund reinvestment; administration of fund.	• Administrative procedures for managing the fund. • Size of fund generated.
Output 4: 4.1 Diagnosis of training needs for local organizations and for the ACLA-C office. 4.2 Development of training modules for topics related to planning, management, accounting, leadership, and financial self-sufficiency. 4.3 Aid in the elaboration of self-sustaining financial strategies. 4.4 Support the exchange of experiences and the participation in training events. 4.5 Strengthening of the CBTC Board of Directors. 4.6 Implementation of the self sustaining financial plan of the CBTC.	• Number of organizations analyzed. • List of identified needs validated by the organizations and the ACLA-C office. • Strategies developed. • Number of people receiving benefits of training or interchanges. • Number of board members trained. • Plan developed. • Resources for the plan generated.
12. Estimated budget (in US dollars): **Project preparation:** **-Project Brief** **-GEF:** **Co-Financing:** **TOTAL:**	 **US$** **US$ 5,000.00** **US$ 749,999.30** **US$ 519,931.00** **US$ 1,269,930.30**

INFORMATION ON AGENCY SUBMITTING PROJECT BRIEF:

13. Information on the project proposer:

The Association of the Talamanca Caribbean Biological Corridor (CBTC) is a properly registered non-profit organization. Members include: Indigenous Reserve Development Association; Talamanca Cabecar Indigenous Reserve Development Association; Kekoldi Indigenous Reserve Development Association; Puerto Viejo Integral Development Association; Manzanillo Integral Development Association;

Gandoca Integral Development Association; Carbon Dos Development and Conservation Association (ASODEC); Talamanca Forest Conservation and Development Association (ACODEFO); Small Farmers Association of Talamanca (APPTA); Talamanca Ecotourism and Conservation Association (ATEC); San Miguel Conservation and Development Association (ASACODE); Gandoca Farmers Association (APROGAN); Kekoldi Wa Ka Koneke Association; ANAI Association; Center for Environmental and Natural Resource Law (CEDARENA).

The CBTC Committee is a local forum for dialogue and consensus that enables stakeholders to voice their concerns and share their experiences in the common search for alternatives and solutions to environmental and natural resource issues. Crucially, it involves not only grassroots organizations but also NGOs and representatives of the Ministry for Environment and Energy (MINAE).

14. Information on proposed executing agency (if different from above):

The proponent organization will also be the executing agency.

15. Date of initial project presentation:

INFORMATION TO BE COMPLETED BY THE IMPLEMENTING AGENCY:

16. Project identification number:

17. Coordinating official of executing agency: Richard Barathe, UNPD/Costa Rica

18. Relevance of project to executing agencies programs:

PROJECT DESCRIPTION

Project Rationale

The world community is concerned about the condition of natural resources around the globe, and especially about the loss of natural areas, which has brought about a subsequent reduction in biodiversity. This situation is particularly dramatic in the tropics where the deforestation rate is unparalleled. (The World Wildlife Fund estimates that in 1995, one hectare of tropical forest disappeared every hour, in America, Asia and Africa).**(1)** Latin America still maintains 40% of her original tropical forests, where 60% of the world's biodiversity can be found. The conservation of forest remnants that give refuge to this extraordinarily rich biodiversity is of vital importance.

The Talamancan region, located in the southern Caribbean portion of Costa Rica, contains one of the last vestiges of tropical forest in Central America. A collection of protected areas are found in this area including: La Amistad International Park, Chirripo National Park, Hitoy-Cerere Biological Reserve, various Indigenous Reserves and other smaller protected areas. The area was declared a Biosphere Reserve and later a World Patrimony Site by UNESCO in 1992 because of its natural and cultural diversity. (In the Caribbean Talamanca, one can encounter Bribri and Cabecar indigenous groups, Afro-Caribbean immigrants, and settlers from other parts of Costa Rica and Central America.)

Talamanca, together with Cocos Island, constitutes the major site of biological endemism in Central America due to the area's geological origin. The Talamancan area was formed during the Pleistocene period and the Costa Rica-Chiriquí complex (where Talamanca is located) became the geographical limit for many species of flora and fauna from the north and south thus creating an interesting mixture of plant and animal species. For example, there are an estimated 35,000 to 100,000 endemic species of insects in Talamanca.

The Talamanca-Caribbean Biological Corridor (CBTC), immersed in this richly diverse region, encompasses five of the twelve life zones found in Costa Rica. The CBTC connects the upper reaches of the Talamanca mountain range measuring 3,820 meters at the continental divide with the coastal protected areas (Cahuita National Park and the Gandoca Manzanillo Wildlife Refuge) at the other altitudinal extreme. The CBTC passes through a middle area that includes three Indigenous Reserves and the Hitoy Cerere Biological Reserve. The CBTC facilitates altitudinal and latitudinal migrations and therefore the flow and exchange of genetic material. At the present time, efforts are being made to enlarge the area of the Corridor with Panamanian protected areas, notably the San San wetlands and Bastimento Marine National Park, both continuations of ecosystems found on the Costa Rican side of the Corridor. Obviously, species that inhabit these binational areas do not respect political boundaries and hence the importance of eventual enlargement of the areas under some form of protected status.

The Talamanca-Caribbean Biological Corridor (CBTC) is part of the larger UNDP/GEF Regional Mesoamerican Biological Corridor (MBC) which currently is trying to develop adequate implementation methods for the countries involved. The Association of CBTC has worked in the CBTC for more than 5 years and has noted during this project implementation experience the common characteristics that the CBTC and the MBC share including: existing protected areas, private lands owned by farmers, and indigenous territories. By supporting the proposed project, GEF would be supporting a replicable model that would serve as a source of experiences and expertise for new projects that will be initiated or developed within the framework of the MBC.

Within the Talamanca Biological Corridor, a study was recently completed called the Rapid Ecological Assessment (REA) **(2)** which organized the information available from diverse studies and contributed new information to complement existing information about the ecology of the CBTC. The REA compiled lists of species including species new to science as well as newly identified species for Costa Rica. This study cites the presence in the CBTC of 84 mammal species, 141 reptilian species, 361 species of birds, 227 species of marine fish and other marine organisms, and 220 species of butterflies. Many of these are listed in CITES under "threatened" or "in danger of extinction" status, such as: *Ara ambigua* (Green Macaw), *Falco peregrinus* (Peregrine Falcon), *Eretmochelys imbricata* (Hawksbill Turtle), and *Dermochelys coriacea* (Leatherback Turtle). A new species was identified as well, a rain frog from the genus Eleutherodactylus.

The area is important as well for the hundreds of thousands of migratory birds that can be observed during the fall migration in September and October. This event is one of the most important natural phenomena on the globe. The flora also shows great diversity with many

endemic species and with South American species that have their northernmost limit in Talamanca. Recent investigations have found plant species until now reported only in the Osa Peninsula, and other plant species previously unknown to scientists. Although Talamanca is one of the most diverse areas of Costa Rica it is also one of the least collected and studied botanically.

The coral reefs of the Gandoca Manzanillo Wildlife Refuge are equally important, since they include the largest reef complex found in Costa Rica in a practically unaltered state, and they represent the best reef development between the Mosquito Coast in Nicaragua and the reefs of Bocas del Toro in Panamá. **(3)**

The Rapid Ecological Assessment also analyzed satellite images and aerial photographs comparing images from 1992 and 1997. From this analysis, it was determined that forest cover diminished by 6% over the course of the 5-year period and that there was a concurrent loss in forest structure and composition in primary forests with unknown consequences for the inhabitants of the ecosystems analyzed and the surrounding areas.

Based on the results of the REA, a strategy was proposed to focus the concentration of conservation efforts on three nuclear priority areas identified in the CBTC. Each nuclear area is composed of a protected area and the private lands around them. Once each nuclear are is consolidated, efforts would be focused on maintaining the connection between the three areas. (See attachments for information and maps about the REA).

The existing biological richness and the fact that many of the lands are in private hands and without any special protection add to the urgency to not only protect these areas but to manage and influence human actions in such a way to limit their altering or destructive impacts. Also, a series of social, historical and economic factors converge, that lead to an accelerated destruction of the forest and forest resources (i.e., biodiversity, water, and soils).

Project Objectives

The main objective of the project is the conservation, protection and sustainable use of the globally significant biodiversity of the Talamanca Caribbean Biological Corridor.

The specific objectives of the project are to:

1. Protect, preserve and restore the ecologically and globally significant forest, marine and freshwater ecotypes, present in the Corridor.
2. Adopt and apply improved, biodiversity friendly and sustainable forest management practices.
3. Protect biodiversity through development, management and marketing of local and regional ecotourism projects, while increasing tourism based incomes.
4. Strengthen local grassroots organizations and the ACLA office, through the development of a co-management model for the protected areas and Corridor project.

Current Situation

Biodiversity Conservation Status of the Talamanca-Caribbean Biological Corridor

The biodiversity of the CBTC is under serious threat and at the risk of disappearing.

The government has reduced the resources available for biodiversity conservation. In the La Amistad Conservation Area, fewer personnel are available for protection activities. This results in limited protection for some ecosystems found inside protected areas, and even less for ecosystems outside protected areas. In the past five years, the results of this limited protection have been felt with a 6% reduction in forest cover in Talamanca and the degradation of primary forests. The few resources that are available are used in isolated situations and usually in a repressive manner, and do little to effect changes in people's behavior towards natural resources.

The absence of extension towards the community keeps local people unaware of the benefits derived from biodiversity conservation. This, combined with lack of knowledge of environmental legislation and the lack of training in natural resource management techniques, contributes to the continuing changes in land use.

Talamanca is one of the few places in the country where there are still forest resources in privately owned lands. This has allowed traditional forest exploitation methods (particularly lumber extraction) to continue, processes that put little value on fauna and non-commercial species and which customarily use inadequate and often destructive technology and machinery. The consequences are degradation of forest remnants and loss of valuable species through overutilization. This process doesn't involve forest property owners who become simple spectators and receive less than 10% of the benefits accrued from the use of their land, nor does it recognize the real value of forest resources. This management model continues to exploit what resources remain until they eventually disappear and the use of that land has been completely changed. Any possibilities for forest regeneration are destroyed with the taking of the last trees that represent the genetic pool from which a new generation of trees could grow.

Although two important pilot projects exist on sustainable forest management using low impact techniques, lack of technical materials and equipment, training and information has made it impossible to recreate these experiences in the rest of the region.

Due to the existing biodiversity, especially in the coastal regions, the CBTC is attractive to tourists. Tourism has grown uncontrollably and without planning, damaging marine ecosystems, especially the coral reefs and coastal wetlands. In the most serious cases, the

construction of tourism facilities near the coast has eliminated the primary ecosystems in some areas.

The norm of tourism development in the zone has been medium-sized investments by foreigners. Generated benefits do not stay in the region, nor do they reach local residents. Local residents often are just salaried workers obliged to complement their incomes by using any natural resources they posses or have access to. Although the zone is highly visited, few tourists leave the coastal confines to visit natural areas farther inland because there is no promotion of these areas as tourism options or destinations.

A few local organizations have developed community ecotourism models but these experiences are isolated and represent only a small fraction of the total visitation to the area. With few economic resources to improve infrastructure and to promote their products, it is difficult to increase visitation to their projects. Also, the lack of coordination between these local efforts reduces the possibility of increasing the options offered to the visitors who do come.

Traditionally Talamanca's agricultural systems were diverse agroecosystems. Over the past few decades there has been an increasing trend towards monocultures, characterized by indiscriminate use of agrochemicals and soil erosion, causing contamination and soil loss that not only affect the local area, but also contribute to severe coral reef degradation along the coast.

On the organizational level, many local groups exist that have worked towards natural resource protection and management, but at a very local level and with limited impact owing to the lack of technical and financial capacity. These limitations result in many of the local groups being unable to reach the goals they set for themselves, and finding their members unmotivated and frustrated. The time needed to participate in organizations is no longer a priority since it isn't translated into concrete benefits for the group members.

The local government, the municipality of Talamanca, has not been involved in environmental decision making. Together with the lack of MINAE's presence in the CBTC, chaos has resulted in regards to the regulation, management and use of natural resources on private lands.

Socio-economic Status of the Talamanca-Caribbean Biological Corridor

According to the classification of Conservation Areas realized by MINAE, Talamanca forms part of the La Amistad, Caribbean Sector Conservation Area. This Conservation Area directly manages La Amistad International Park, Cahuita National Park, Hitoy Cerere Biological Reserve, and the Gandoca Manzanillo Wildlife Refuge as well as oversees the management and protection of the natural resources in the entire region.

The municipality of Talamanca comprises the local government. This institution has not had a prevalent role with regards to the management and protection of natural resources in the zone. Nevertheless, the municipality constitutes a principal actor in conservation taking into account the current tendency for municipalities to become more active in their regional activities.

It is important to mention that Talamanca is the poorest municipality in the country. An effective process of modernization and diversification of the productive system did not follow the cacao crisis at the end of the seventies. Talamanca continues to be largely agricultural, producing mainly producing plantain and bananas. In the remaining agricultural and livestock activities, the small farmers face problems common to all dispersed rural areas: lack of credit, low technology, lack of roads, low productivity, dependence on intermediaries for marketing, and low incomes.

According to the National Census of 1984 (the most recent available) it was estimated that 60% of the economically active population of Talamanca is grouped into the occupational categories of self-employed or non-salaried family laborer. Obviously, this means that the work force is concentrated on small farms, the majority of which face the problems of a subsistence economy mentioned earlier.

Poverty in Talamanca has increased. According to a comparative study realized by the Planning Ministry in 1991, between 1974 and 1984 Talamanca went from fifth to first place among all the counties of the country with the least satisfaction of basic needs. The following list details in part, this lack of basic services:

- The rate of illiteracy in Talamanca (22.2%) is four times above the national average.
- The rate of illiteracy in the indigenous population is three times above that of the white population.
- Talamanca has the highest infant mortality rate in the country.
- In 1992, 21% of children under 5 years old in Talamanca showed some signs of malnutrition. This figure reaches 28% in the indigenous population.
- Talamanca has a deficient potable water supply and system of wastewater treatment. Only one quarter of homes have running water, and only one fifth of the homes use outhouses or septic tanks for waste disposal. These problems become more acute with heavy rains and constant flooding especially in the lower part of the Sixaola River watershed.

Expected Project Outcomes

In the three-year project, the following project results are expected:

1. Ecologically and globally significant forest, marine and freshwater ecotypes are identified and purchased when necessary, or restricted through environmental easements, and local organizations and communities are trained and educated to protect them.
2. A sustainable forest management model is developed and extended to forest resource managers, users and communities.
3. Regional and local ecotourism development strategies are designed and implemented in collaboration with local communities.
4. Capacity of local organizations, communities and government to participate in co-management of biodiversity in the CBTC is strengthened.

The proposed alternative guarantees the permanence of forest cover and habitat quality for existing species, by means of biological monitoring from which data would be compiled that would permit the identification of management decisions for site conservation. Furthermore, priority areas identified in the nuclear zones would be purchased, ensuring the permanence of strategically important resources.

Communities located in the nuclear areas would be engaged in the protection and control of natural resources, via environmental education programs that emphasize the value of local biodiversity. The use of information from scientific studies, those realized as well as those to be realized, and the promotion of community based land use would be fostered as well. A network of community resource guards will be established, to provide direct, local leadership for protection activities.

Benefits derived from the protection of biodiversity would be channeled to farmers through State opportunities such as carbon sequestration and water resource conservation.

For the areas that permit sustainable natural resource management (especially of the forest), a model would be developed involving community participation with low impact techniques that would maximize utilization technologies that permit forest regeneration over time. To strengthen this process and commercialization strategy would be developed that would help guarantee a genuine sustainable management of forestry resources and the conservation of the adjoining biodiversity. Reforestation of important forestry production sites would reestablish prime material sources thus permitting the maintenance of the primary forest as well as assuring the proper regeneration of utilized forest so as to fulfill the function of biodiversity habitat. Capital would be provided to permit the distribution of economic resources to manage optimum lumber production areas based on sustainable forest management.

In the field of ecotourism, a rural and indigenous network would be consolidated and, using existing experiences as a foundation diversify options for visitors. To achieve this end, a strategy of biological tourism would be developed based on the biodiversity strengths of coastal and inland communities, that reinforces the idea of biodiversity preservation not only for its biological value but for its economic value as well. The development of community based regional ecotourism packages, which include marketing and promotion strategies, would generate financial resources from a conservation base thus improving the economic condition of local communities. To assure this action a study would be realized to examine the feasibility of establishing a fund with inputs from members of the network (to make possible the collection of financial resources) that would enable self sustainability and the consolidation of the sites via protection activities.

A strong alliance between the government and local organizations is being advanced for the purpose of biodiversity management and conservation in the CBTC where the function of ACLA-C is understood and respected and where local organizations are trained to develop in an integrated manner for the benefit of the local residents and for the biodiversity present in the area.

Activities and Financial Inputs (see Appendix A for Project Logframe for detailed list of project outputs and activities.)

OUTPUT 1 (Total cost: $879,436.00, Cost to GEF: 352,384.30, Cofunding: 438,620.00, Incremental Cost: $724.547,00)

(Develop community ecological evaluations in the nuclear areas to be used to elaborate local resource use plans, Biological monitoring methodology designed and implemented, Implement an environmental education program in communities, establish a network of "community resource guards", and restore degraded areas.
Aid the consolidation of a state program for payment of environmental services for forest protection and management, Acquisition of strategic lands and establishment of conservation easements in the nuclear zone from private land owners, development of a land trust, and development of a site conservation plan.)

OUTPUT 2 (Total cost: $145,370.00, Cost to GEF: $61,681.00, Cofunding: $6,000; Incremental Cost: $ 67.681,00)

(Forest management model developed and disseminated via extension, education, exchange and training programs, market strategy developed, Reforestation activities, Start up funds located that assure the conservation of areas with virgin natural resources.)

OUTPUT 3 (Total cost: $175,920.00, Cost to GEF: $129,580.00, Cofunding: $30,000.00; Incremental Cost $ 156.131,00)

(Develop joint ecotourism-biological conservation strategies and community ecotourism products, Promote and market community ecotourism products, Technical-financial feasibility study conducted for a conservation fund.)

OUTPUT 4 (Total cost: $118,354.00, Cost to GEF: 206.354.00, Cofunding: 45,311.00; Incremental Cost $ 98.565,00)

(Diagnosis of training needs for local organizations and for the ACLA, Development of training models for topics related to planning, management, accounting, leadership, and financial self-sufficiency, Elaboration of self-sustaining financial strategies.)

The estimated total cost of the baseline activities corresponds to the sum of US$ 377,035.00. The cost of the GEF alternative is 1,296,885.30, of which 546,886.00 will be contributed by The Nature Conservancy, the CBTC Association and local organizations, and 749,999.30 by the GEF.

The proposed project seeks to guarantee the permanence of the biodiversity that exists in the CBTC including protected areas and the buffer zone by means of protection activities that complement those activities already being developed in the Conservation Area, but which, in and of themselves, aren't sufficient to guarantee the conservation of biodiversity for perpetuity. Although the responsibility to assure the protection of natural resources lies with the government, in practice this doesn't happen owing to budget limitations. Because of this, non-governmental

conservation groups try to attend to aspects of conservation not attended or only partially attended to by the state. The goal is to produce up to date information about the biodiversity in the area that would facilitate decision making; pass information on to the communities about local resources and their global and regional significance; integrate communities in a program to control activities that negatively impact natural resources; and facilitate local residents access to benefits derived from the protection of the forest and other resources.

At the same time that protection activities are being developed, part of the strategy of this project is to aid sustainable production activities such as forest management, ecotourism, by means of technical assistance, training, identification and design of appropriate conservation models and help in commercialization. By giving the local population the means to sustainably use natural resources, the major obstacle to conservation of biodiversity is eliminated. For example, with ecotourism, novel attractions are being identified such as avian tourism. A recent investigation shows that this agroforestry system provides a habitat for at least 63 species of migratory and resident birds, many of which also reside in primary forest.

The development of this project will occur with a high level of local participation incorporating strategies that strengthen local grassroots organizations. These groups can effectively and efficiently reproduce lessons and experiences acquired through work with the project. This strengthening process would occur through formal training activities as well as on an informal level through the development of other activities.

It is important to note that although in the past there have been other efforts in Talamanca to develop infrastructure, conduct investigations, and strengthen the Amistad Caribe Conservation Area (thanks to CATIE and Dutch cooperation), these efforts must be complemented with actions that directly involve the local organizations and communities in the protection and management of biodiversity. The integrity of biodiversity is closely related to the impact on it generated by local residents. This project allows protection of biodiversity through promotion of the balance between man and nature and echoes actions developed by GEF in the Amistad Pacific Conservation Area and in the Osa Peninsula, from which the emphasis on work with communities and local organizations was derived. The experience from these projects shows that this focus is necessary if the intention is to influence the benefits for biodiversity in the long term.

Global Environmental Benefits

The global community receives a series of benefits derived from the maintenance of the marine, riparian and terrestrial ecosystems found in the CBTC. Among these benefits is that of simply knowing that unique flora and fauna exist in the region and because of this, the possibility remains of one-day finding use for these biological resources. It is important to consider the benefits that natural resources provide for the pharmaceutical industry, such as the studies INBio (National Biodiversity Institute) has underway at this time.

Many species of flora and fauna have been used traditionally by the Cabecar and Bribri indigenous communities that have generated scientific investigation about the chemical

properties of each species. In the same way, spiritual values connected to the existence of biodiversity are preserved that help to maintain these two cultures. Also, the conservation of biodiversity will permit the preservation of genetic pools with potential application in agriculture, forestry and industry.

The Corridor protects ecosystems that conserve unique species of endemic flora and species of fauna in danger of extinction. Within the nuclear area that includes the Gandoca Manzanillo Wildlife Refuge, the Monkey Point wetland is protected, the only place in the country where the "Orey" swamp tree (*Camnosperma panamensis*) is found. In the same area, the Cativo (*Prioria copaifera*) swamp is protected, an ecosystem comparable in it's composition to the Dipterocarpaceae forests of the Malaysian archipelago. Also within the Refuge, we find the only habitat of the Manati (*Trichechus manatus*) in the southern Caribbean section of Costa Rica, as well as the most well developed reef complex between the Miskito coast of Nicaragua and Bocas del Toro islands in Panama. Here we find a large quantity of reef species previously unknown in Costa Rica, such as the case with *Madracis c.f. pharencis* and *Agaricia c.f. lamarcki*. In this area alone, five of the seven types of reef complexes known in the region are found. The reef's survival depends on the maintenance of forest cover in the highlands, which the project proposes to accomplish.

With regards to the terrestrial vegetation, between 2500 and 3000 species are protected, among them 15 species endemic to Costa Rica. The forests of the Corridor are home to species new to science, such as the rain frog from the Eleutherodactylus genus. The region also possesses one of the highest indexes of avian diversity in Costa Rica with more than 361 species identified. The region also lays claim to one of the most important natural events: bird migrations from north to south, and vice versa. Especially during the months of September through November, the area is a stopover site for hundreds of thousands of birds from the families: Cathartidae (vultures), Accipithridae (hawks), Parulidae (warblers), Tyrannidae (flycatchers), Hirundinidae, and Apodidae.

If the current tendencies and rhythms in the use of natural resources continue unabated, all of the existing resources will soon disappear. For technical and economic reasons previously described the communities of the region cannot advance a genuinely sustainable form of economic development that protects fragile resources unsuitable for use. Consequently, the process that destroys these global assets and incurs great losses for the worldwide community will be accelerated.

With the support of the GEF, the project proposes to maintain and develop the conditions that permit the continued provision of the assets derived from the biodiversity present in the CBTC to the entire planet. Additionally, the richly diverse CBTC which includes protected areas, indigenous reserves, private lands and economically needy communities, gives the GEF the occasion to develop a showcase project within the regional Mesoamerican Biological Corridor Program.

Sustainability Analysis and Risk Assessment

An excellent working relationship exists with the ACLA (the regional structure of MINAE) in the development of diverse activities in the area of resource protection as well as in the political field. By the same token, support for the Corridor project and activities exists on the part of governmental authorities, and has been manifested by joint efforts, verbal and written backing, letters of understanding, and cooperation agreements.

Coordination also exists with the Municipality of Talamanca by way of an Environmental Advisory Commission, which was established by efforts of the CBTC Association, of which MINAE is also a member.

The development of the proposed activities would encourage an increase in the standard of living of the region's inhabitants, because they would introduce productive and economic conditions that permit land owners' access to use their own natural resources, while facilitating group and community marketing capabilities without changing cultural characteristics that have developed over generations. The proposed activities are sustainable, not only because of their economic viability but because they aim to better the standard of living without overloading the ecosystems carrying capacity.

A focus on gender is incorporated in the implementation of all project activities. The idea, however is not to work with separate groups, but to empower women and promote their integration into the leadership of the local organizations. With the incorporation of women into the productive activities of the organizations, their role in the groups will be strengthened. The project favors a change of vision with respect to the role of women and their contribution to development processes. This will permit the integration of families as a whole into productive activities, and the integration of the both men's and women's particular collective needs and strengths into the group development.

From a biological point of view, sustainability is guaranteed via the maintenance of forest cover and the integrity of different habitats. Part of the function of the biological monitoring to be developed is to increase the information available on different species that use the Corridor for altitudinal or latitudinal migrations.

The proposed project, through full integration with community leaders, expects to produce active community participation in development activities, and in this way generate a general awareness in the local population of the benefits that accompany the protection of natural resources.

The positive experiences that are expected to result from the proposed activities and the increased capacity obtained by the grassroots organizations through their participation in the development of these activities will guarantee the continuity of the project beyond it's formal duration. In the same way, the CBTC Association is currently developing a self-sustaining financial strategy as a mechanism to ensure the long-term continuity of the Associations activities.

Stakeholder Involvement and Social Assessment

Since its beginning, the Corridor organization has had the support and participation of diverse grassroots organizations, which has assured active community participation.

The Association of Organization of the CBTC, is made up of the following local organizations:

-The Talamanca Bribri Indigenous Reserve Development Association
-The Talamanca Cabecar Indigenous Reserve Development Association
-The Kekoldi Indigenous Reserve Development Association
-Manzanillo Integral Development Association
-Gandoca Integral Development Association
-Puerto Viejo Integral Development Association
-San Miguel Conservation and Development Association (ASACODE)
-Talamanca Conservation and Forestry Development Association (ACODEFO)
-Carbon 2 Development and Conservation Association (ASODEC)
-Small Farmers Association of Talamanca (APPTA)
-Kekoldi Wa Ka Koneke Association
-Gandocan Farmers Association (APROGAN)
-Talamanca Association for Ecotourism and Conservation (ATEC)
-ANAI Association
-Center for Environmental and Natural Resource Law (CEDARENA)

The CBTC Association is responsible for establishing the principal policies and strategies of the project. It unites different organizations in a forum for political discussion and permits the exchange of experiences and concerns and the mutual search for alternatives and solutions in the area of natural resource management. This forum not only includes local grassroots organizations, but also non-governmental organizations and the Environment and Energy Ministry (MINAE).

The Association has already developed its five year strategic plan, where the mission is described as: To conserve and assure the integrity of the biodiversity in the area of the CBTC, for the benefit of present and future generations, through the facilitation and execution of biodiversity protection and sustainable production activities.

For the fulfillment of this mission, the CBTC Association has defined the following objectives:

1. Maintain the biodiversity in the CBTC area
2. Support the consolidation of grassroots organizations that work with protection and management of natural resources.
3. Support productive and service oriented initiatives in Talamanca that benefit natural resources.
4. Promote the modification of policies in Talamanca, towards a greater conservation of natural resources.

This forum has made a qualitative leap in that each of the member organizations has seen an increase in their individual capacities to propose and to respond to proposals, and in their ability to set aside personal positions to rally behind the shared mission of preserving natural resources. Within a group setting, decisions regarding the protection and management of natural resources are made by consensus, and thus are more sustainable.

The proposed project responds to the needs identified in the strategic planning of the Association, and was designed with (and will be carried out with) active member participation.

Incremental Cost Assessment (Please refer to Appendix B for Incremental Cost Assessment and Matrix)

Budget

Estimated Breakdown of Costs by Budgetary Component (US$ 1,279,599.00)

Components	GEF	CBTC		TNC		Communities		TOTAL
		In Kind	Cash	In Kind	Cash	In Kind	Cash	
Personnel	302,243.3		5,374.0		34,255.0	18,000.0		388,974.0
Subcontracts	110,500.0		4,000.0		54,606.0			167,106.0
Training	74.800.0		1,726.0		13,000.0	2,000.0		84,823.0
Equipment	122,091.0							48,500.0
Travel	82,178.0		3,000.0		5,000.0	3,045.0		95,193.0
Miscellaneous	58,187.0		4,900.0		368,450.0	2,575.0		442,145.0
Evaluation	22,000.0							22,000.0
3% Project Support	21,189.3							21,189.3
TOTAL	749,999.30		19,000.0		475,311.00		25,620.00	**1.269,930.30**

Implementation Plan

The project will have a duration of three years and the participating institutions will prepare a detailed schedule of activities during the first month of work. The implementation of activities will follow the general outline provided below:

Duration of Project (in months): 36							
Activities	Project-Months						
	0	6	12	18	24	30	36
PROTECTION							
Monitory methodology	X	X	X				
Monitoring program	X	X	X	X	X	X	X
Control, Education	X	X	X	X	X	X	X
Ecological community assessment	X	X	X	X			
Site Ecological Plan	X	X	X	X			
Buy Land	X	X	X	X	X	X	X
Environmental services	X	X	X	X	X	X	X
FOREST MANAGEMENT							
Management strategy	X	X	X				
Reforestation	X	X	X	X	X	X	X
Green seal	X	X	X				
Commercialization	X	X	X				
ECOTOURISM							
Strategy development	X	X	X	X	X	X	X
Community tours	X	X	X	X	X	X	X
Establish small organizations network	X	X	X	X	X	X	X
ORGANIZATION STRENGTHENING	X	X	X	X	X	X	X
Evaluations			X		X		X

Public Involvement Plan

Stakeholder identification

The Association of organizations of the CBTC and the member organizations themselves interested in natural resource protection are co-executors of the program via the General Assembly, the Directive Board, and the Technical team. Apart from GEF, UNDP and the other co-financing organizations, the principal parties interested in the project are: the local government (Municipality of Talamanca), and the national government, represented by diverse organizations that maintain offices in the region, for example, MINAE, the Agricultural Ministry (MAG), and the Agrarian Development Institute (IDA). Also, small organized groups and

community members located in the nuclear zones where project activities will be jointly implemented.

Information dissemination and consultation

The activities of the alternative are designed in such a way as to divulge existing information to the communities with the aim of gaining local inhabitant's appropriation of this knowledge, as well as obtaining feedback that would help assure biodiversity protection given the characteristics and interests of each community. Before the development and presentation of this proposal, meeting assemblies were held with participating institutions to discuss the goals and objectives of the Corridor project.

Stakeholder participation

The CBTC structure will permit full participation of the different actors involved in the proposed project. It is important to remember that the CBTC has established a forum to discuss and analyze the different aspects relevant to the project. The communities participate in the implementation of the planned activities from the start since these are designed to involve community groups and individuals in the conservation and management of biodiversity taking into consideration their particular characteristics and interests.

Social and participation issues

Community participation is conditioned by a series of factors that positively or negatively decide the dynamic of local residents in relation to the process of biodiversity protection and management. The economic situation is a determining factor. When communities don't find their economic needs satisfied, they inevitably begin to pressure the natural resources found in the area. Knowledge of the benefits natural resources provide and the consequences of their adequate or inadequate management will affect levels of local resident's participation. It is crucial to equip communities with sustainable development alternatives. If communities receive concrete benefits from conservation, they become the main advocates and allies for natural resource protection. The level of consolidation of local organizations, is another element on which community participation depends.

Monitoring and Evaluation Plan

The decrees of the Implementation and Secretariat office would be followed in agreement with the regulations of the Global Environmental Facility for medium sized projects. The Association of CBTC will be responsible for the overall fiscal monitoring of the program and broad project oversight. Fiscal monitoring and evaluation will involve periodic financial reports, yearly reviews by CBTC on the progress of project activities, and a series of mid-term reviews to be provided by the CBTC, appropriate government agencies, and national and international NGOs.

Technical Revision

Technical revision by the Scientific and Technical Advisory Panel is not required because the project falls below the 750,000.00 US$ limit. (749.965,89)

Project Check List

PROJECT ACTIVITY CATEGORIES			
Biodiversity	Climate Change	International Waters	Ozone Depletion
Protected area zoning/mgmt: ✓	Efficient production and distribution:	Water body:	Monitoring:
Buffer zone development: ✓	Efficient consumption:	Integrated land and water:	Country program:
Inventory/monitoring: ✓	Solar:	Contaminant:	ODS phaseout:
Ecotourism: ✓	Biomass:	Other:	Production:
Agro-biodiversity:	Wind:		Other:
Trust fund(s):	Hydro:		
Benefit-sharing:	Geothermal:		
Other:	Fuel cells:		
	Other		
TECHNICAL CATEGORIES			
Institution building: ✓			
Investments: ✓			
Policy advice: ✓			
Targeted research: ✓			
Technical/management advice: ✓			
Technology transfer: ✓			
Awareness/information/training: ✓			
Other: ✓			

Appendix A: Project Logframe

Project Strategy	Objectively Verifiable Indicators	Means of Verification	Assumptions / Risks
Development Goal Conservation, protection and sustainable use of the globally significant biodiversity of the Talamanca Caribbean Biological Corridor			
Project Purpose Resource users and managers, farmers and communities in the Corridor: 1. Protect and preserve ecologically and globally significant forest, marine and freshwater ecotypes present in the Corridor 2. Adopt and apply improved, biodiversity friendly sustainable forest management practices and market certified wood products. 3. Develop, manage and market local and regional sustainable ecotourism and increase tourism-based incomes. 4. Strengthen the local grassroots organizations and ACLA-C office, and develop a co-management model for the Protected Areas and the Corridor.	-Increase of the forest cover in CBTC. -Number of people involved in community projects. -Increase in economic income of the region due to the new sustainable alternatives adopted. -More groups join efforts of the CBTC. -No indication of pressure on Protected Areas. -25% increase in the number of tourists that visit community based ecotourism options.	-Aerial photographs, satellite images and sampling of keystone species. -Surveys, interviews and census. -Consultation of number of claims in entrance books of the Judicial Power.	-Willingness of community groups and individuals to participate in conservation activities. -Legal framework remains in effect. -National levels of education and literacy are maintained. -A favorable economic situation is sustained, that doesn't adversely affect underprivileged groups. -The value of environmental services is recognized.
Output 1 **Ecologically and globally significant forest, marine and freshwater ecotypes are identified and purchased, and local organizations and communities are trained and educated to protect them.**	-Increase in population of keystone species. -Increase of the % forest cover in CBTC. -Number of people working in volunteer protection programs.	-Aerial photographs, satellite images and sampling of keystone species.	-The government continues to recognize the economic value of environmental services -There has been success in the application of sustainable alternatives. -Forest cover in the CBTC area is maintained. -A positive attitude is sustained by local residents toward natural resource conservation.
Activity 1. Based on the REA (Rapid	-Number of people that receive	-Surveys and interviews.	

Ecological Assessment) develop community ecological evaluations in the nuclear areas to be used for the elaboration of local resource use plans in each community, as well as to increase local knowledge about existing natural resources.	information. -Results from community workshops.		
Activity 2. Biological monitoring methodology designed.	-Results of monitoring program.	-Verification studies with keystone species.	
Activity 3. Biological monitoring program implemented.	-Monitoring program established. -Analysis of keystone species populations.	-Monitoring program data. -Case studies.	
Activity 4. Implement an environmental education program in communities that includes wildlife and forestry control techniques.	-Reduction in percentage of environmental offenses. -Number of people who receive environmental education.	-Entrance books of the Judicial power. -Census, surveys.	
Activity 5. Establish a network of community natural resource guards, who manage a fund to support control and protection activities within their area of influence. Restoration of degraded areas in the core areas by improving soil management techniques in traditional crops, by growing crops organically, and by introducing trees into traditional agricultural and pasture areas.	- 15 communities with effective resource guards	-number of carnets for voluntary resource guards emitted by MINAE	
Activity 6. Restoration of degraded areas in the core areas by improving soil management techniques in traditional crops, by growing crops organically, and by introducing trees into traditional agricultural and pasture areas.	-Number of hectares restored, or in process of restoration	- Interviews and census.	
Activity 7. Aid the consolidation of a	-Number of hectares committed	-FONAFIFO record book.	

payment program for environmental services.	to Environmental Services. -Number of program beneficiaries. -Number of conservation easements. Establishment of a land trust. servidumbres ecológicas y establecimiento de un land trust.	-Servidumbres inscritas en el Registro Nacional. Conservation easements formalized and registered in the National Registry.	
Activity 8. Land acquisition in the nuclear areas.	-Number of hectares acquired.	-Land titles.	
Activity 9. Develop a site conservation plan	-Program development.	-Case study.	
Output 2 **Sustainable forest management model developed and extended to resource users, managers and communities.**	-Number of hectares committed to the new management model. -Obligatory technical and legal regulations with respect to environmental impact, for all projects being developed in the zone.	-Aerial photographs, satellite images. -Case studies.	-The legal system is conserved that makes possible natural resource protection, and Protected Area conservation. -Absence of natural disasters that affect natural resources, such as floods, earthquakes, global warming. -The market tendency to acquire certified products increases.
Activity 1. Forest management model developed	-Technical document that systematizes the model. -Application of the model in the field, in different communities of the Cahuita nuclear area.	-Case studies.	
Activity 2. Forest management model disseminated via extension, education, exchange and training program.	-Number of hectares committed to new management model. -Number of people involved.	-Aerial photographs, satellite images. -Case studies.	
Activity 3. Market strategy developed.	-New products on the market. -New incomes for communities from sale of products.	-Review of accounting books. -Surveys and interviews. -Inventories in forestry industries.	
Activity 4: Support of reforestation activities	-Number of reforested hectares.	-ACLA-C Register.	

such as technical assistance, tree production.	-Trees produced in nurseries.	-FONOFIFO Register.	
Activity 5: Funds located that assure the conservation of areas with untouched natural resources for the carrying out of sustainable development activities.	-Number of hectares. -Amount generated through forestry production.	-Case studies.	
Output 3 **Regional and local ecotourism strategies developed and extended to communities.**	-Number of people working in ecotourism projects. -A 10% increase in community incomes due to the development of ecotourism activities. -Number of visitors to community projects.	-Surveys and census. -Analysis of accounting books of local organizations. -Case studies.	-Costa Rica continues to grow in the area of tourism. -Regional ecological conditions are maintained. -The social and political situation remains stable.
Activity 1. Develop joint ecotourism and biological conservation strategies.	-Document detailing strategy development.	-Documents	
Activity 2. Develop community ecotourism products.	-Number of products offered.	-Consultation of record books of local organizations. -Surveys, census. -ICT (National Tourism Institute) record books.	
Activity 3. Promote and market community ecotourism products.	-Number of visitors.	-Surveys	
Actvity 4. Technical-financial study to examine feasibility of starting a fund with % of earnings from participating communities; definition and execution of fund reinvestment policies; fund administration.	-Bylaws for managing the fund. -Administrative procedures for managing the fund. -Size of fund generated.	-Financial reports. -Fund auditing.	