

MEDIUM-SIZED PROJECT BRIEF

PROJECT SUMMARY

PROJECT IDENTIFIERS	
1. Project name: Creating a Co-Managed Protected Areas System in Belize: A Plan for Joint Stewardship Between Government and Community	2. GEF Implementing Agency: UNDP
3. Country in which the project is being implemented: Belize	4. Country eligibility: Ratified Convention on Biological diversity on December 30, 1993 and meets all other eligibility requirements.
5. GEF focal area(s): Biodiversity	6. Operational program/Short-term measure: OP 3, Forest ecosystems (also includes some freshwater and coastal ecosystems)
7. Project linkage to national priorities, action plans, and programs: The government is committed to the conservation of natural and environmental resources. Relevant to this project, it has enacted the Environment Protection and National Parks Systems Acts. The most recent milestone is the formation of the Protected Areas Conservation Trust (PACT) in 1996. In addition, the national five-year plan strongly emphasizes the need to improve living standards of rural people while limiting detrimental environmental impacts. The project will provide capacity-building inputs at the local and institutional levels necessary to promote active involvement of local communities in the management of protected areas identified in the National Protected Areas Plan. It will play a catalytic role in realizing the potential for win-win opportunities in conservation by providing communities with a utilitarian stake in biodiversity conservation.	
8. GEF national operational focal point and date of country endorsement: Submitted: July 25, 1997. Endorsed by Ministry of Economic Development, June 25 1998 (letter attached).	
PROJECT OBJECTIVES AND ACTIVITIES	
9. Project rationale and objectives: Protection of biodiversity and natural areas in Belize through community co-management of protected areas.	Indicator: Increase in the area of designated PAs that is brought under effective community co-management.
10. Project outcomes: i) A co-managed park system, initially covering 4 parks, is established. ii) Local communities develop capacity in PA management and sustainable revenue generation strategies. iii) Management model for areas that include public and private lands is developed.	Indicators: <ul style="list-style-type: none"> ▪ Selection and establishment of local stewardship boards in four parks. ▪ Trained local PA management staff. ▪ Establishment of a framework for PA management on public-private lands. ▪ Receipts from ecotourism.
11. Project activities to achieve outcomes (including cost in US\$ '000): i) Co-management plans and operations (420). ii) Communications and information sharing network (85). iii) Build capacity within PACT for network oversight (100). iv) Framework for protected area management on private-public lands (140). v) Capacity building within local communities to ensure sustainability (195). vi) Explore expansion of the network of co-managed parks (40).	Inputs: Technical support and assistance from international and local experts is mobilized; basic infrastructure and equipment support is in place.

12. Estimated budget (in US\$):			
	GEF:		750,000
	Co-financing:		230,000
	PACT (in cash)	75,000	
	PACT (in kind)	75,000	
	CCC (in kind)	80,000	
	TOTAL:		980,000
INFORMATION ON INSTITUTION SUBMITTING PROJECT BRIEF			
13. Information on project proposer: The Protected Areas Conservation Trust (PACT) was set up in 1996 as a result of an Act passed in Parliament. It demonstrates an innovative move that mandates the targeting of user fees for conservation financing. It operates as a statutory body with a nine-member Board of Directors, an eleven-member Advisory Council and a five-member staff body. The Board is responsible for executive control and management (comprised of government and NGO representatives), while the Council provides technical support. PACT's mission statement is "...to encourage and promote the conservation and management for sustainable use of Belize's natural and cultural resources, to enhance and sustain the quality of life for Belizeans."			
14. Information on proposed executing agency (if different from above): Project activities will be executed by PACT, with technical support from Community Conservation Consultants, a US-based NGO with in-depth experience on working with communities on conservation issues.			
15. Date of initial submission of project concept: July 20, 1997			
INFORMATION TO BE COMPLETED BY IMPLEMENTING AGENCY:			
16. Project identification number:			
17. Implementing Agency contact person: Moises Cal			
18. Project linkage to Implementing Agency program(s): The project fits in with UNDP assistance strategy for Belize, including GEF small grants, and prior GEF grants to government Ministries such as the Biodiversity Strategy and Action Plan. It also fits within both the Government of Belize and UNDP strategies on human development, especially rural development and empowerment of communities and grassroots organizations.			

PROJECT DESCRIPTION

Project rationale and objectives

1. The overall objective of this project is to improve effective protection of existing protected areas by encouraging community co-management of these areas. Belize is unique in that it is still dominated by forest cover that provides extensive areas of natural habitat for some 4,000 species of plants, 150 mammal species (15 endangered/ threatened), 540 bird species (33 endangered/ threatened), and 151 species of amphibians and reptiles, all within a surface area of only 22,965 km². The long-term conservation of the unique biological diversity of Belize is linked to its citizens and their involvement in conservation planning. By changing the prevalent paradigm of centralized management, and supporting an effective and active management of parks by communities the project will help secure global conservation values, as larger areas will be under effective protection.
2. Belize is the second smallest and the least populated country in Central America. It lies in the northern portion of the Mesoamerican land bridge, and shares its borders to the north with Mexico, and to the west and south with Guatemala. To the east there is a long coastline on the Caribbean Sea, with numerous offshore islands and coral cays. Many of these lie in a chain some 15-40km offshore, along the second largest barrier reef in the world, which is almost continuous for some 257km. The country can be subdivided into the level and low-lying northern half, which continues to the south along a coastal strip, and the Maya Mountains in the south central area of the country. The low-lying areas, which are continuous with the Mexican Yucatan Platform, are dominated by limestone topography, while the mountain range, which rises to 1,120m, is largely composed of metamorphosed sediments, with granitic intrusions. The country lies within the subtropics, and has a history of devastating effects of cyclones (Hartshorn and others, 1984; US-AID, 1988).
3. Following the Holdridge (1967) classification system, and the work of Hartshorn and others (1984), six life (ecological) zones have been described in Belize: subtropical moist forest, subtropical lower montane moist forest, subtropical lower montane wet forest, subtropical wet forest, tropical moist-transition to subtropical, and tropical wet-transition to subtropical. Mangroves are a major feature of the coastal and marine ecosystems (Hartshorn and others, 1984; OFI, 1989). Coral reefs are highly developed and contain a typical Caribbean fauna (IUCN, 1988). The most recent estimates of forest cover suggest that closed broad-leaved forest covers some 74% of the land area, and open pine forest a further 5%.
4. The flora in the north is closely allied to that of the Yucatan Peninsula, which is thought to comprise up to 17% endemics. Another feature which raises the status of Belize as a country of considerable conservation importance is the fact that much of the habitat is undisturbed, and relatively unthreatened at present. Hence, populations are more stable here than in many other countries (Hartshorn and others, 1984; WWF-US, 1989). However, with most of the population growth expected to take place in rural areas anthropogenic pressures on biodiversity are mounting.
5. The evolution of park management in Belize has steadily been moving in the direction of community co-management. The government of Belize began its park system based on a co-management agreement with Belize Audubon Society in 1981 (BAS)¹. Over the past decade, the government has both supported and been influenced by a quiet rural revolution in community conservation. This began with the creation of the Community Baboon Sanctuary (CBS) in 1985 under guidance of staff from Community Conservation Consultants (CCC), a US-based NGO working with communities to promote conservation of natural resources². CBS stimulated other rural communities to conserve natural resources for themselves and for Belize. Thus, joint stewardship by government, communities, and in-country partners has already taken root in Belize.

¹ National Parks System 1981; Neal 1987; Manzanero 1997.

² Horwich 1990; Horwich and Lyon 1988.

6. Since 1994, the government has actively supported these efforts to integrate communities and government agencies through shared responsibility for the management, stewardship, and development of the economic potential of protected areas. There is, therefore, a highly positive climate to develop a nationwide protected areas system based on the principles of community co-management. Government priorities and programs mirror the evolution of park management into community co-management. The government has enacted the Environment Protection and National Parks Systems Acts, supporting integrated coastal zone management, and declaring protected areas. The most recent milestone is the formation of the Protected Areas Conservation Trust (PACT) in 1996. In addition, the National five-year Plan strongly emphasizes the need to improve living standards of rural people while limiting detrimental environmental impacts (NARMAP 1995).

7. The project proposes to create a formalized network of community co-managed protected areas in Belize that capitalizes on this win-win opportunity. This requires **addressing initial barriers related to in country capacity to implement community co-management effectively**. The long-term objective, therefore, is to develop capacity within communities to operationalize the concept of co-management. Capacity-building efforts will also be targeted to PACT, so that it can continue training and system support to these and other communities and ensure effective management of the protected areas system over the long-term.

8. The proposed project occurs within a broader framework of previous and current UNDP and GEF assistance to Belize. These include the National Biodiversity Strategy and Action Plan, the Mesoamerican Biological Corridors Project (Bladen and Chiquibul areas), the Coastal Zone Management Project (phase one) and the Conservation and Sustainable Use of the Belize Barrier Reef Complex (phase two), the GEF Small Grants Project, and the Human Development Project. All these projects seek to protect Belize's natural resources through research, policy formulation, active management of some designated areas, and, in the case of the Human Development Project, through building up leadership capacity in rural areas. By exploring and developing the potential to involve communities in the management of protected areas, using a model that can then be adapted to other areas in Belize, the proposed project will complement current and on-going GEF initiatives by providing a tried and tested model for community co-management³. In essence, it is a complementary activity that will build local capacity to manage protected areas over the long term.

Current situation

9. The government has made a commitment to comprehensively address natural and cultural resource management and protection and, at present, some thirty-seven percent of the entire nation consists of protected areas. The significant coverage places a heavy burden on the "managers" of the PA system to effectively ensure conservation.

10. The existing institutional and administrative framework that supports protected areas in Belize is not coordinated. Protected areas fall under three different Ministry jurisdictions (Natural Resources, Agriculture and Fisheries, Tourism and the Environment). Even though management is carried out with the help of a diverse NGO community the institutional capacity and funding to manage the entire system effectively is lacking, with many parks functioning as paper parks. The current trend has been to establish parks, but without any form of management of these areas. In the face of competing uses of designated areas, the lack of resources to ensure effective management could imperil the future of the protected areas system.

11. The involvement of local communities in protected area management is therefore the most effective way of addressing this gap. Local communities adjacent to PAs are typically rural and economically stagnant⁴. Although agriculture still remains the single largest employer in Belize, ecotourism has dramatically increased in the past two decades. The number of visitors traveling to Belize has steadily increased and the tourism sector

³ In addition, there are two other medium-size projects being developed with the support of World Bank-GEF and this project will coordinate efforts with these two initiatives as detailed on page 8 under coordination with related activities.

⁴ While the total population of Belize is relatively small (225,000), much of the projected growth will take place in rural areas (NARMAP 1995). This is likely to impact on the current share of rural population in the total (48 percent).

is currently the fastest growing employer. Despite these trends, revenue generation from ecotourism has not been as widespread in rural areas compared to some of Belize's more urban and coastal centers.

12. There is clearly a win-win opportunity here: rural communities will benefit from a diversified income base by tapping in to opportunities provided by the growing ecotourism sector, and, seeing the utilitarian stake in conservation, they will ensure effective protection of parks. However, for this approach to be successful there are several issues that need to be addressed at the outset. Communities need to develop basic skills ranging from managing park finances to visitors and even conflicts. There is also a need to build capacity within PACT so that it has the ability to expand and continue these efforts over the long term. These barriers need to be addressed before community co-management can realize its true potential.

13. The Forestry Department has been seeking innovative and experimental ideas and has begun the dialogue with some communities (Manzanero, 1996). The Conservation Division of the Forestry Department has signed a formal co-management agreement with the Friends of Five Blues Lake (Manzanero, 1997) and has had community meetings with the Friends of Laughing Bird Caye in Placencia and townspeople from Cay Caulker regarding local use of marine reserves and adjacent areas. Staff have also met with villagers concerning management of the Freshwater Creek Reserve, and the Manatee Forest Reserve/SDA. The Conservation Division is laying the foundation for comprehensive reform of the protected areas system based on community co-management and joint stewardship. However, an essential complement to these initial consultations is a comprehensive effort to address management capacities at the local level. Such capacity-building efforts are needed to ensure the success of community integration and interagency coordination in building co-management arrangements.

14. In the baseline, PACT, an institution dedicated to the management and conservation of natural and cultural resources will make funds available to communities interested in co-management arrangements. A conservation fee paid by tourists visiting Belize supports PACT. This demonstrates that the government has made major headway in using economic instruments for conservation financing. PACT's Board consists of representatives from government and non-government organizations. In this sense it is a bold and innovative strategy for non-traditional revenue generation. PACT has the capacity to manage the proposed MSP. Although a new and growing organization, it has the capacity to provide for the recurrent costs and to reproduce the experience in the future. Few other local organizations are in this position. PACT was set up without a grant from any donor and has been entirely self financed from day one -- through the tourist departure tax and 20% of entrance fees charged by protected areas. However, for communities to access these funds effectively they need to develop their own capacities in PA management. PACT is limited by the maximum size of grants it can make to communities (US\$ 12,500) and the human resources to promote proper management and operations. While PACT lacks the capacity to address these initial barriers, it has both the mandate and resources needed to continue financing co-management once barriers are removed. Likewise, Belize Audubon Society (BAS), another major entity active in the conservation arena, does not have the resources to pursue a comprehensive local capacity-building effort that would ensure the success of a co-management approach.

Expected project outcomes

15. The proposed project is expected to establish the foundation for a vastly expanded use of the community co-management concept for the effective conservation of designated protected areas, thus supporting the existing institutional and administrative framework for PAs. By addressing initial barriers to implementing this approach, GEF resources will secure conservation of biodiversity in the medium to long term. The potential replicability of project results within Belize, and in the region in general, will greatly enhance global conservation benefits⁵. The co-management program will establish a functioning network that

⁵ As a whole, Central America has approximately the same number of vascular plant species as the United States or Peru (20,000-25,000), despite being 15:4 times smaller respectively. According to *A Conservation Assessment of the Terrestrial Ecoregions of Latin America and the Caribbean*, of the 33 ecoregions found in Mesoamerica, the

achieves the following:

1. Protection of unique and threatened resources.
 2. Sustainable use of parklands and adjacent areas.
 3. Joint development of management plans between communities and government.
 4. Use of biodiversity assessments and geographic information system (GIS).
 5. Mapping of protected areas to inform management.
 6. Development of co-managed parks that are financially stable.
 7. Creation of an overall co-management structure and framework for Belize.
16. By building the currently lacking local capacity to co-manage parks, the project will secure global conservation values embodied in options and existence values. The project has identified the following four sites for developing a community co-managed system:
17. **Manatee Forest Reserve** - 113,388 acres (approximately 4.94% of the protected areas system). The reserve includes savannah, pine, and broadleaf forests. The Keel-billed Motmot, previously found only in the Chiquibul area of the Maya Mountains, is found here at a higher population density than any other place in Belize. This bird species has a restricted distribution. Also, there have been investigations into fern and epiphyte flora, and mapping of the mangrove vegetation. The reserve was established for the regeneration of pine and hardwoods.
18. **Aguacaliente Wetland Complex** - 8,650 acres (approximately 0.38% of the protected areas system). The proposed area includes freshwater wetlands and broadleaf forest. This is identified as a diverse wetland community consisting of permanent creeks and an open lagoon. The area is rich in biological diversity, including a wide range of medicinal plants, vines, mammals, reptiles, fish and birds, especially the endangered Jabiru Stork⁶.
19. **Five Blues Lake National Park** - 4,250 acres (approximately 0.19% of the protected areas system). The national park includes broadleaf forest, and freshwater lagoons as well as caves, sinkholes, and exposed rock faces. Several species of birds and bats have been recorded in this area. The park was designated to protect the complex of lagoons and their surrounding forest. The vegetation is tropical, species rich, mixed broadleaf deciduous forest. The flora is mainly Mexican and Central American with a significant West Indian element. A number of South American species are present, as are several species endemic to the Yucatan peninsula. Common tree species include mahogany and cedar that are now extremely rare trees in the tropical world. The park contains a small island with a profusion of orchids. The area also provides important habitat for threatened faunal populations including the jaguar, ocelot, jaguarundi, margay, puma, howler monkey, anteater, Baird's tapir, collared and white-lipped peccary, coati and armadillo.
20. **Freshwater Creek Forest Reserve** - 73,191 acres (approximately 3.2% of the protected areas system). The reserve contains broadleaf forest, secondary broadleaf thicket, open lagoons, freshwater wetlands, and mangrove. The vegetation occurring in the reserve is singular consisting of lowland broadleaf moist evergreen seasonal forest over limestone (north east variant). Freshwater Creek Forest Reserve is the only statutory protected area in the north of Belize and is thus important for securing adequate representation of characteristic

conservation status of 11 is rated as critical with an equal number rated as endangered. Given increasing pressures in rural areas (expansion of the agricultural frontier; large-scale agro-industrial investment), biodiversity will be most effectively protected through a multisectoral strategy aimed at integrating biodiversity conservation with economic development within a regional land-use planning framework. The current model of community co-management can help in "integrating conservation and sustainable use of biodiversity within the framework of sustainable economic development", a central objective of the mesoamerican biological corridor.

⁶ Recent studies have confirmed that Belize has the healthiest breeding population of jabirus for all of Central America. They arrive in Belize from Mexico in November and nest in the tall pines of the savannas and marshes of the Belizean lowlands. They remain in Belize until June or July, flying north with the first rains. The largest number of jabiru counted in Belize is 24.

communities within the protected area system. Several mammal species are present in this area including Jaguar, Ocelot, Tapir, Agouti, and Paca. Reptiles and amphibians are also present, including two crocodile species, the common Iguana, and the Central American River turtle that is endemic to the Yucatan. There are several useful insect groups present, including butterflies. Rare and endangered bird species present in the reserve are the Black Catbird, the Yellow-headed Amazon, the Ocellated Turkey (all of which are endemic to the Yucatan), the Harpy Eagle, the Jabiru Stork and the American Wood Stork. The reserve was designated to protect broadleaf forests.

21. A three-year period will allow adequate time to develop the new system, enable existing community co-managed reserves to develop a plan for sustainability, and expand the program to new parks and protected areas. A three-year program also will give project partners time to develop a new framework for private-public lands, based on the Special Development Area (SDA) framework.

Activities and financial inputs

22. Project activities are divided in to six areas: developing co-management plans and operations, communications network, institutional capacity building, model for public-private lands, local capacity building, and expansion of the network.

23.1. Develop co-management plans and operations: This activity will focus on existing parks and build on recent co-management initiatives. We will concentrate on the following: Five Blues National Park, Freshwater Creek Forest Reserve, Manatee/Manatee West Special Development Areas, and Aguacaliente Swamps. Five Blues is in a co-management program with the government and has received initial funding from PACT to the tune of Bz\$ 25,000⁷. Freshwater Creek has received Bz\$ 13,000 from the Canada Fund and Bz\$ 25,000 from PACT.

24. In these areas the Project will pursue village-based land use mapping (conceptual mapping), ecological mapping, and biodiversity inventories as tools to strengthen the knowledge base on the biological, archaeological, and historical attributes of each area. This exercise will also help in identifying and understanding the source of threats and designing mitigation strategies. Through rapid biodiversity assessments, GIS mapping (in coordination with the Land Information Center), and involvement of local people the activity will provide basic information necessary to formulate and implement the co-management program. In addition co-management agreements will be negotiated between the community and government. A detailed stakeholder participation plan will be developed at each site outlining community participation in the design and development of co-management plans and also in the operations and implementation of the plans.

25. The overall cost for developing co-management plans and park warden salaries and basic infrastructure support for park operations (creation and maintenance of trails, small field shelters for the wardens and visitors) is estimated at \$420,000 over three years. Management at each park site will be overseen by a stewardship board comprised of representatives from the local community(ies). These boards will act as a liaison with local government officials and the relevant national government agencies. The recurrent costs involved in park management and operations will be absorbed by PACT's grant-funding program after project completion.

26.2. Strengthen the communications and information-sharing network: Given that each protected area under consideration has unique attributes, it will be very important to establish a communications network among communities and protected areas that are part of the network. The communications network will serve several important functions, including sharing of management experiences, exchanging innovative management ideas, introducing new monitoring techniques, and enhancing public awareness of co-management efforts. We propose to develop a newsletter, strengthen existing communication systems

⁷ Bz\$2 = US\$1

(telephone, radio), and sponsor co-management seminars (US\$ 85,000 over 3 years).

27.3. Build capacity within PACT for network oversight: The entire park co-management system will be overseen by PACT. This two-tiered system will facilitate interactions among parks, disseminate information, and organize seminars and conferences for park managers, co-managers, local and governmental representatives. It is also designed to provide checks and balances in management-based decision making, provide a more robust fiscal management capacity, and act as a conduit for corporate/private partnerships and/or external financial interests in parks and park development.

28. PACT will work with local co-management boards from each protected area to oversee park management. Co-management responsibilities will involve direct local participation in all land management decision making (e.g., land use, hunting, tourism), assistance in developing long and short-term management plans, oversight of local staff and monies generated through co-management agreements. In addition, PACT will interface with various government agencies and NGOs and establish training programs for local managers. The fiscal responsibility will help ensure continuity, alleviate fiscal pressures at the local level, and enable the setting of pay guidelines and work protocols. PACT will not be responsible for direct management of local parks or have authority over decision making made at the local level. This will maintain the necessary independence of each project and respect the unique attributes of each participating partner.

29. PACT is already a sustainable organization with a permanent staff and the financial ability to make small-scale grants to community-based conservation projects. The proposed project will enhance the capabilities of PACT to fulfill the above responsibilities by developing skills in project management, supervision, monitoring (including financial monitoring), and community mobilization⁸ (US\$ 100,000 over 3 years).

30.4. Create a framework for protected area management on private-public lands: The Project proposes to build on the framework of the Special Development Areas (SDAs) to create and formalize a new type of protected area on landscapes comprised of both private and public lands. At present there is no formal management of such areas. These new parks will incorporate community co-management and integrate private landholders in management/ stewardship programs. A great deal of work has been done on the Manatee Area SDA with the help of two NGOs, CCC and BEST. We propose to enhance the existing development, zoning, and land use guidelines to create a new management system that includes input from local communities, government agencies, private landholders, and appropriate private sector entities (US\$ 140,000 over 3 years).

31.5. Capacity-building within local communities to ensure sustainability: The current situation in protected area management is one where government and NGOs have limited capacity for effective on-the-ground management. Communities are ideally suited to fill this gap, provided they are given appropriate guidance and help with the development of specific skills to fulfill co-management responsibilities. The project will create the necessary conditions for communities and civil society to be accepted as equal partners in the management of protected areas. Communities will be trained in basic financial management, bookkeeping, and visitor management. Such support will ensure the effective and sustainable involvement of these new partners in a coordinated effort to preserve our natural resources. In particular, we propose to support communities in developing funding partnerships, revenue generation strategies, and cost controls within each park. A three-year period will facilitate planning for long term financial sustainability.

32. Training for local management staff will cost some \$195,000 over three years. This training will also be shared with other interested communities who border other protected areas that are not a part of this project. The training will be continued by PACT after the completion of the project, as substantial park co-management expertise will have been developed over the life of this project. This activity will also help PACT in its regular grant-funding program by establishing the capacity within these communities and others to access funding

⁸ Capacity-building within PACT will take place as a result of learning-through-implementation. The more formal training modules will be directed to communities.

efficiently.

33. 6. Explore expansion of the network of co-managed parks: This activity will explore the possibility of expanding the co-management network from the initial four areas to include additional protected areas with co-management potential. These may include: Laughing Bird Caye, Toledo Ridge and Wetlands Area, Columbia Forest Reserve, Rio Blanco National Park, and Aguas Turbias National Park. In addition, we also propose to establish an exchange of experience with community-based parks being developed by other NGOs and institutions such as Cay Caulker Reserve being developed as part of a UNDP-GEF Marine Protected Areas project, the Sarstoon-Temash community-based NRM component of an IFAD agricultural sector loan, Sibun River SDA, and Tapir Mountain Nature Reserve, and others that may arise as the idea of co-management develops in Belize. This will involve extensive community consultations to assess expansion of the co-management network to additional protected areas and is anticipated to cost \$40,000 over three years.

34. The following four categories represent the current status level of protected areas in Belize. The Project's goal is to maximize their integration into the co-management network. However, many parks and protected areas are in different stages of development thereby making it prudent to treat them in an identical fashion. Recognizing the unique attributes and characteristics of each park in the network will be essential to ensure the long-term success of the community co-management objectives. The four categories are:

- i) Existing protected area with foundation of community co-management (4 areas)
- ii) Existing protected area in early stages of co-management development
- iii) Proposed protected area with potential for co-management
- iv) Areas with both public and private lands that currently fall under SDAs.

35. Coordination with related activities

The project will coordinate efforts with the two other MSPs under preparation with World Bank-GEF support, all of which are targeting different areas within the country. These are the Sarstoon-Temash National Park Project (with IFAD) and the Northern Belize Biological Corridors Project (with Program for Belize). The IFAD project will look at co-management arrangements with local communities in the Sarstoon-Temash area (southern Belize) and the PFB project at establishing biological corridors in the northern part of the country. In particular, the training and information-sharing network segments of this project will be implemented in close cooperation with the IFAD and PFB projects in order to maximize the impact of these activities and avoid duplication. The project will also share information and lessons learned with a proposed community co-managed marine protected area in Cay Caulker that is being developed as part of UNDP-GEF assistance on the conservation and sustainable use of marine biodiversity.

Sustainability analysis and risk assessment

36. *Institutional sustainability.* A key element of the proposed co-management program is to develop and sustain long term conservation partnerships. The program will involve the cooperation and collaboration of a number of partners including: representatives from the Conservation Division of the Forestry Department of the Ministry of Natural Resources, PACT, and Community Conservation Consultants (CCC). These partners will work directly with villages, NGOs currently working with communities (BAS, BEST, Help for Progress, and The Nature Conservancy), and with the Coastal Zone Management Authority. This will ensure in country ownership and institutional sustainability.

37. *Recurrent costs.* This project will remove initial barriers to community co-management of protected areas and build capacity within communities to shoulder co-management responsibilities. Once this foundation is established, PACT will absorb the recurrent costs of park management and operations through its own resources. PACT's resources are a function of the departure tax charged to tourists when they leave the country and 20% of entrance fees from all protected areas. In its first year of operation (1997-98) its grant budget

totaled US\$150,000 and in its second year (1998-99) the grant budget is targeted at US\$330,000, an increase of 50% in one year. Additional funding strategies will be pursued to create financial sustainability, including financial management, developing user fees, and utilizing highly motivated personnel (LaPage 1994). The Project proposes funding partnerships where external parties have minimal influence over the direction of management and programs developed within the community. In this vein, volunteers working with CCC currently are exploring partnerships for Five Blues National Park with the city of Louisville, Kentucky. The development of such ancillary friends groups will help to raise funds for the projects without creating external controls. CCC will also work with foundations outside Belize to secure additional funding and support for the proposed program.

38. *Project risks.* One of the risks to project success centers on insufficient commitment by the government and/or communities to implement or adhere to co-management protocols. The project will address this by developing mechanisms within the co-management system that are practicable and agreeable to all parties. It will initially work with communities that are receptive to co-management and already have an incipient structure in place. Furthermore, the history of co-management in Belize diminishes the likelihood of this risk. The project will develop management protocols with the objective of promoting local communities as full and equal partners to protect against this. Finally, the development of the proposed co-management infrastructure will evolve over a number of years and long-term financial support to communities will be necessary to achieve all essential program goals. PACT, with its ability to provide small-scale conservation grants and administrative guidance, will ensure the availability of such support in the future. PACT is an established and independently funded organization that will provide stability during the evolution of co-management planning and implementation.

INCREMENTAL COST ASSESSMENT

39. This initiative will address initial barriers related to local communities' capacity to implement community co-management effectively. Belize is in a unique position to expand the idea of community-based co-management to a higher level, but given current capacity constraints, a national system of co-management will require assistance from the GEF and other proposed project partners. GEF resources will be devoted to training and local capacity building efforts related to the management and operations of protected areas.

40. On-going efforts by PACT are limited by the maximum size of grants that can be given to communities (US \$12,500), and by technical and human resource capacities to promote proper land use management and biodiversity protection. The limited funding from PACT, while extremely important and significant, does not allow for the full development of a broader, more efficient, and more comprehensive national co-management system. Such a comprehensive system will require essential skill development within communities if it is to be effective and sustainable. Furthermore, the four natural areas that are at the core of the current proposal do not have well-developed and functional infrastructure to pursue a complete co-management scenario that can generate revenues based on ecotourism. Through financial support from GEF, utilization of existing and long-term financial and human resources available from PACT, long-term partnership with CCC, and the development of new partnerships with private foundations and organizations, we will be able to coordinate co-management efforts and develop a stronger framework for biodiversity protection and rural development in Belize.

41. The baseline consists of funding that will potentially be available to these four sites through PACT. This is an annual amount of US\$12,500 per park or US\$50,000 for all four parks per year or US\$150,000 over three years. This assumes full funding for all projects and no competing interests for the available monies as the current program operates on a case-by-case basis. The cost of the GEF alternative, which complements resources available in the baseline, is US\$ 1,167,500. The incremental cost is US\$ 980,000. Some of this will be co-financed by PACT (US\$ 75, 000 in cash and US\$ 75,000 in kind) and CCC (US\$ 80,000 in kind). GEF funds are requested for the remaining incremental costs, US\$ 750,000. Additional co-financing and supporting funds will be sought during the implementation of the proposed project from Foundations and private

organizations in North America and Europe.

Incremental Cost Matrix

	Baseline	Alternative	Increment
Global Environmental Benefits	<ul style="list-style-type: none"> ▪ Ineffective management leads to encroachment and degradation of parks. ▪ Risk of parks being “de-reserved” in the face of alternative land uses and limited capacity by government and NGO community to manage parks. 	<ul style="list-style-type: none"> ▪ Participation of rural communities in protected area management ensures effective protection. 	<ul style="list-style-type: none"> ▪ Enhanced biodiversity protection secures options and existence values. ▪ Integrity of parks assured. ▪ Model developed for further adaption and replication.
Domestic Benefits	<ul style="list-style-type: none"> ▪ Rural communities lack the capacity to benefit from sustainable use of components of biodiversity. 	<ul style="list-style-type: none"> ▪ Increased rural ecotourism income providing communities with a utilitarian stake in conservation. 	<ul style="list-style-type: none"> ▪ Direct and indirect use values from biodiversity protection (ecotourism revenues, watershed protection, and microclimate regulation).
Costs (US\$)	<ul style="list-style-type: none"> ▪ PACT resources available to communities at the four project sites (US\$150,000) <p>Cost of baseline: US\$150,000</p>	<ul style="list-style-type: none"> ▪ PACT resources available to communities at the four project sites (US\$150,000) ▪ Co-management plans and operations (US\$420,000). ▪ Communications and information sharing network (US\$85,000). ▪ Build capacity within PACT for network oversight (US\$100,000). ▪ Framework for PA management on private-public lands (US\$140,000). ▪ Capacity building within local communities to ensure sustainability (US\$195,000). ▪ Explore expansion of the network of co-managed parks (US\$40,000). <p>Cost of alternative: US\$ 1,130,000</p>	<p>Incremental cost: US\$980,000</p> <p>Of which, GEF US\$ 750,000 Co-financing US\$ 230,000</p>

BUDGET

Estimated Breakdown of Costs by Budgetary Component (in US\$)

Components	GEF	PACT Funding	CCC (in kind)	PACT (in kind)	TOTAL
Personnel	312,000	12,000	70,000	55,000	
Subcontracts	70,000	10,000	10,000		
Training	105,000	10,000		10,000	
Equipment	85,000	5,000		5,000	
Travel	18,000	2,000		2,000	
Evaluation Mission	11,000	3,000		3,000	
Basic protected area infrastructure	149,000	33,000			
TOTAL	750,000	75,000	80,000	75,000	980,000

42. In-kind support from PACT will mainly be the input of general and financial administrative support by current staff members. The balance consists of regular PACT resources to assist in monitoring and implementing the project. Some community training will likewise be done by PACT as part of its ongoing grant award program. In addition, PACT will also be putting in US\$75,000 in cash to support the project.

43. CCC and the Edgewood College will provide in kind support through their time spent in the field with communities in developing and implementing the model along with the Project Supervisor. Given their expertise, developed while working with communities in Belize and internationally, they will also volunteer a part of their time as technical advisors to the project. A part of their costs of living in the field and internal travel while in Belize will be covered through their own resources.

IMPLEMENTATION PLAN

44. The proposed program will be executed through joint coordination between PACT, participating local communities, and the Government of Belize with technical assistance from CCC. BAS has been closely involved in project development and will serve as an advisory voice in the implementation of the project. The structure of BAS does not allow it to pursue a comprehensive co-management effort; however, given its key role in Belize in the protection and management of natural areas it is ideally suited to be a collaborator in an advisory capacity. The proposed project implementation plan is as follows.

Duration of Project (in months): 36	
Activities	Project-Months

	0	6	12	18	24	30	36
Develop co-management plans and operations	-----						
Strengthen communications and information-sharing network	-----		---				
Build capacity within PACT for network oversight	-----						
Framework for PA management on public-private lands	-----						
Capacity building within local communities to ensure sustainability	-----						
Expand the network	-----						

PUBLIC INVOLVEMENT PLAN

45. The primary stakeholders of the project include local beneficiaries, community councils, CBOs, social and conservation NGOs, government policy makers and the global community. All of these stakeholders will benefit from the effective protection of these areas, both in the medium-term and long-term.

46. Since the creation of the Community Baboon Sanctuary, there has been a steady increase in the number of rural communities requesting protection of nearby natural areas from the government. For example, community interest in protecting Monkey River in the late 1980's stimulated meetings by villagers in St. Margaret's Village for protection of Five Blues Lake in 1991, and this, in turn, stimulated interest and meetings in Gales Point in 1991 for protection of the coastal landscape surrounding the village. The positive government response to these requests has resulted in the formation of a number of protected areas and Special Development Areas (SDAs). Current requests by community members have met with a positive response by both government agencies and conservation and social agency NGOs. For example, the Ministry of Tourism and the Environment initiated and supported a seminar on ecotourism that included over 30 villages (Vincent 1994). This meeting resulted in the production of a video (Government Information Service 1994) and a community tourism guidebook (Anon 1994) that were geared to aiding and supporting rural communities in their quest for local protection of their natural resources. Thus, information dissemination and community-government-NGO consultations on natural resource management have a solid foundation in Belize.

47. As emphasized earlier, the involvement of rural communities in co-management and, more importantly, in generating revenues through ecotourism has been overlooked relative to coastal and urban centers. Ecotourism tends to benefit large hotels and tour operators, more so than rural communities. The reason for this is that the parks system in Belize does not at present involve communities in a meaningful way. This project will provide communities with a utilitarian stake in the conservation and stewardship of biodiversity within the parks system. A park management presence in each of the proposed protected areas will ensure that basic infrastructure is in place to cater to visitors such as trails, interpretive materials, and basic visitors centers. Human resource capacities will be created through training in design, layout and maintenance of trails and park facilities, and also in the skills involved in tour guiding. The project will thus empower communities that are at present not benefiting from natural resource based tourism. As such, these communities have little incentive to safeguard the natural beauty that surrounds them. Making them a part of the conservation process will be one positive way of ensuring the protection and management of our protected areas.

48. In fact, consultations and social assessments carried out near protected areas identified by the project⁹,

⁹ Bruner 1993; Gerlitz 1994; Glaser and Namis 1993; Hartup 1994; Help for Progress 1996; Lumb and Horwich 1997;

all point to the following social issues of concern in local communities: (a) hunting-gathering rights; (b) economic concerns with an interest in addressing some of them through ecotourism; (c) land use concerns for agriculture and other uses; (d) fishing rights; (e) participation in developing management plans; and (f) hiring of local people and use of local labor in development projects funded from outside interests and/or agencies. The project will ensure that these issues are addressed in the co-management plans for the protected areas.

49. Stakeholder involvement in project execution is critical to the project's success. Recognizing this, their active participation has been sought in the development of the proposal itself. The current proposal has been developed over an eight-month period and involved consultations and meeting with PACT, CCC, government Ministries, in country NGOs and local citizens surrounding protected areas and who will be part of the proposed effort. In addition, Belize Audubon Society, while not involved in executing project activities, supports the current co-management proposal and will function as an advisory voice in the implementation of the proposed project.

MONITORING AND EVALUATION PLAN

50. PACT will be responsible for the overall fiscal monitoring of the program and broad project oversight. Fiscal monitoring and evaluation will involve periodic financial reports from the stewardship board of each participating protected area, yearly reviews by PACT on each protected area, and a series of mid-term reviews to be provided by each local stewardship board, appropriate government agencies, and national and international NGOs. CCC will provide regular evaluations on progress with community integration into the management process and impacts on biodiversity. It will also evaluate the co-management program as a whole.

TECHNICAL REVIEW

51. A technical review is not appropriate for this grant proposal because it does not exceed US\$750,000.

PROJECT CHECKLIST

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:			

REFERENCES

- Belize Audubon Society (BAS). 1995. Belize Audubon Society Information Pack. Manuscript.
- Bruner, G. 1993. Evaluating a Model of Private-ownership Conservation: Ecotourism in the Community Baboon Sanctuary in Belize, M.S. Thesis, Georgia Institute of Technology, Atlanta, GA.
- Gerlitz, W. 1994. Five Blues Lake National Park, Management Plan, Final Draft. Manuscript.
- Glaser, M and N. Namis. 1993. Community needs and forest protection workshop. Manuscript.
- Government Information Service. 1994. Belize Today (video on community-based tourism). Ministry of Tourism and the Environment, Government of Belize.
- Hartshorn, G.S., Nicolait, L., Hartshorn, L., Bevier, G., Brightman, R., Cal, J., Cawich, A., Davidson, W., DuBois, R., Dyer, C., Gibson, J., Hawley, W., Leonard, J., Nicolait, R., Weyer, D., White, H., and Wright, C. (1984). Belize Country Environmental Profile. A Field Study. US-AID Contract No. 505-0000-C-00-3001-00. 151 pp.
- Hartshorn, G.S. and Green, G.C. (1985). Belize. Wildlands conservation in North-Central America. September. 6 pp.
- Hartup, B.K. 1994. Community conservation in Belize: demography, resource use, and attitudes of participating landowners. *Biological Conservation* 69: 235-241.
- Help for Progress. 1996. Community development initiatives surrounding Freshwater Creek Forest Reserve. Consultancy Report No. 19. Forest Planning and Management Project, Belmopan, Belize.
- Horwich, R.H. 1990. How to develop a community sanctuary - an experimental approach to the conservation of private lands. *Oryx* 24: 95-102.
- Horwich, R.H. and J. Lyon. 1988. Experimental technique for the conservation of private lands. *Journal of Medical Primatology* 17: 169-176.
- IUCN (1988). Coral Reefs of the World, Volume 1: Atlantic and Eastern Pacific. IUCN Conservation Monitoring Centre, Cambridge, UK. 373 pp.
- LaPage, W. F. 1994. Self-funding - the New Hampshire experience. *Parks* 4:22-27.
- Lumb, J. and R. Horwich (eds.). 1997. Sarstoon-Temash National Park Stakeholders Workshop. Transcript. Manuscript.
- Manatee Advisory Team. 1992. Manatee Special Development Area (MSDA) Recommendations Submitted to the Lands Utilization Authority MSDA Sub Committee, Manuscript.
- Manzanero, R. 1996. Conservation Division Forest Department Annual Report. Manuscript.
- Manzanero, R. 1997. Co-Management Workshop. Manuscript.
- NARMAP. 1995. Protected Areas System in Belize.
- National Parks System Act. 1981.
- Neal, R.H. 1987. Letter to BAS Executive Director.
- OFI (1989). Belize Tropical Forestry Action Plan. Report by Oxford Forestry Institute. Unpublished. Oxford Forestry Institute, Oxford, UK. 273 pp.
- PACT. 1992. Protected Areas Conservation Trust Strategic Plan. RME Consultants Group, 53 Nanche Street, Belmopan, Belize.
- Spergel, B. 1996. Belize's Protected Areas Conservation Trust: A Case Study. World Wildlife Fund, Washington, D.C. Manuscript.
- US-AID (1988). Tropical forests/biodiversity. Annex to US-AID/Belize FY 89-90 Action Plan, March. 26 pp.
- Vincent, K. 1994. Report of the Community-Based Ecotourism Gathering. BEST and Belize Ministry of Tourism and the Environment. Manuscript.
- WWF-US (1989). The establishment of the conservation division and expansion of a protected areas system in Belize. Unpublished report submitted to the Biodiversity Support Program.