Green Cover
Report No. 16535-NI

Nicaragua
Atlantic Biological Corridor Project (GEF)

Project Document
May 9, 1997

Central America Department
Latin America and the Caribbean Regional Office

CURRENCY EQUIVALENTS

Nicaraguan Córdoba 1.0 = US$.107 (April 1997)

FISCAL YEAR

January 1 to December 31

WEIGHTS AND MEASURES

Metric System

ABBREVIATIONS AND ACRONYMS

ABC	Atlantic Biological Corridor
APAS	Atlantic Protected Area System
CAS	Country Assistance Strategy
CBD	Convention on Biological Diversity
CCAD	Central American Commission on Environment and Development *Comisión Centro-Americano de Ambiente y Desarrollo)*
CIDA	Canadian International Development Agency
CITES	Convention for the International Trade of Endangered Species of Flora and Fauna
CODES	Sustainable Development Council *(Comissión de Desarollo Sustentable)*
CONAMA	National Environmental Council *(Consejo Nacional sobre el Medio Ambiente)*
COP	Conference of the Parties
CPP	Community Participatory Plans
DANIDA	Danish International Development Agency
EIA	Environmental Impact Assessment
ELUP	Environment and Land Use Plan
FISE	Emergency Social Investment Fund *(Fondo de Inversión Social de Emergencia)*
FNA	National Fund for the Environment *(Fondo Nacional Ambiental)*
FOCADES	Central American Fund for Environment and Development
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIS	Geographical Information System
GoN	Government of Nicaragua
GTZ	German Agency for Technical Cooperation
IA	Inter-community Assembly (*Asamblea Intercomarcal*)

IAN	National Agrarian Institute *(Instituto Agrário Nacional)*
ICB	International Competitive Bidding
IDA	International Development Association
IDB	Inter-American Development Bank
INETER	Instituto Nicaraguense Estudios Territoriales
INIFOM	Nicaraguan Institute for Municipal Development (*Instituto Nicaragüense de Desarrollo Municipal*)
INRA	National Agricultural Reform Institute *(Instituto Nacional de Reforma Agraria)*
IPDP	Indigenous Peoples Development Plan
LIB	Limited International Bidding
LSMS	Living Standards Measurment Survey
MARENA	Ministry of Environment and Natural Resources (*Ministerio del Ambiente y Recursos Naturales*)
MTU (*UTM*)	Municipal Technical Unit (*Unidad Técnica Municipal*)
NCDIL	National Commission for Demarcation of Indigenous Lands
NCB	National Competitive Bidding
NEAP	National Environmental Action Plan
NGO	Non-Governmental Organization
OAS	Organization of American States
PA	Protected Area
PDF	Project Development Fund (of the GEF)
PIP	Project Implementation Plan *(Plan de Implementación del Proyecto)*
PIU	Project Implementation Unit
PNDR	National Rural Development Program *(Programa Nacional de Desarrollo Rural)*
POA	Annual Operating Plan *(Plan Operativo Anual)*
PROARCA	Resource Assessment Project for Central America (of USAID)
RAAN	North Atlantic Autonomous Region (*Región Autónoma del Atlántico Norte*)
RAAS	South Atlantic Autonomous Region (*Región Autónoma del Atlántico Sur*)
RRA	Rapid Rural Appraisal
SA	Special Account
SAR	Staff Appraisal Report
SBD	Standard Bidding Document
SDR	Special Drawing Right
SOE	Statement of Expenditures
STAP	Scientific and Technical Advisory Panel (for the GEF)
TFAP	Tropical Forestry Action Plan
TNC	The Nature Conservancy
TORs	Terms of Reference
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
WWF	World Wildlife Fund

Nicaragua
Atlantic Biological Corridor Project

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PART I: PROJECT SUMMARY

This report was finalized during an Appraisal Mission carried out in April 1997. The World Bank core team included Luis Constantino (senior natural resources economist and team leader), Paola Agostini (environmental economist), Olga Corrales (social and participation issues), Gary Costello (project preparation), Douglas J. Graham (biodiversity), Marta Molares-Halberg (legal), James Smyle (natural resources, RUTA III), and Jorge Uquillas (indigenous peoples). The following Bank staff and Bank consultants participated in missions or substantively contributed to preparation of this project: Ken Chomitz (land use planning), Kathy Mackinnon (biodiversity, GEF), Luis Olivas Alvarez (agronomy, RUTA III), Mark Rose (international promotion of corridor), and Daan Vreugdenhil (protected areas). Local project preparation coordinators for MARENA were Eduardo Marin and Garcia Cantarero. MARENA staff and their consultants who played major roles in preparing the project included: Jim Barborak (conservation scientist), Miguel Castellón (economist); Jacinto Cedeño (protected areas), Victor Cedeño (technical coordinator), Denis Corrales (coordinator Rural Municipalities Project), Carlos A. Espinosa Fajardo (biological issues), Carlos Lola (financial mechanisms), Javier López Medina (land use planning), Jorge Martinez (economic analysis), Marvin Ortega (indigenous peoples), Carlos Quintela (financial mechanisms), Roque Roldan (indigenous issues), Beda Solares de Clerk (social issues), Jim Tolisano (monitoring), Victor Tercero Talavera (institutional arrangements), Luis Zúñiga Mendieta (human settlements), and Teresa Zúñiga (biodiversity). The Country Department Director is Donna Dowsett-Coirolo and the Sector Leader is Mark Cackler.

PART I: PROJECT SUMMARY

NICARAGUA
ATLANTIC BIOLOGICAL CORRIDOR
GRANT AND PROJECT SUMMARY

Source of Grant: Global Environment Facility Trust Fund

Grant Recipient/Executing Agency : Government of Nicaragua, Ministry of Environment and Natural Resources (MARENA)

Beneficiary:

Total Project Cost: SDR _____million (US$7.1 million equivalent)

Lending Terms: Grant

Financing Plan:

GEF Grant	US$7.1 million
GoN	US$1.2 million
Associated Financing:	US$ 12.8 million
(1) Rural Municipalities Project for the Atlantic (Total Rural Municipalities Project)	US$ 4.1 million (US$ 40.4 million)
(2) CIDA/Canada	US$ 0.2 million
(3) Nordic Development Fund (NDF)	US$ 3.5 million
(4) PROCODEFOR/Holland	US$ 5.0 million

Economic Rate of Return: N/A

Maps: IBRD Nos. 28754, 28755, and 28756

Project Identification No.: NI-GE-41790

Estimated Grant Disbursements by Year
(US$ Million)

Fiscal Year	Year 1	Year 2	Year 3	Year 4	Year 5
Annual	1.6	1.9	1.5	1.0	1.1
Cumulative	1.6	3.5	5.0	6.0	7.1

NICARAGUA

ATLANTIC BIOLOGICAL CORRIDOR PROJECT

1. BACKGROUND

Natural Resources of the Atlantic Slope

1. The Atlantic slope of Nicaragua accounts for over half of the country's 12 million ha. The outstanding biological value of the Atlantic region's natural habitats (Map IBRD No. 28754) is recognized nationally and globally (Dinerstein et al., 1995: *A Conservation Assessment of the Terrestrial Ecoregions of Latin America and the Caribbean*, World Bank/WWF). The lowland humid forests of the Atlantic slope are the largest remaining area of relatively pristine forest in all of Central America. Apart from a very rich fauna and flora, these forests are a key link, and a *de facto* biological corridor, in a chain of humid forests stretching from Mexico to Colombia that assure a biogeographical link between North and South America. Nicaragua's forests still harbor populations of regionally endangered species such as tapir, harpy eagle and jaguar, whose survival depends on large areas of undisturbed forests.

2. The Atlantic slope of Nicaragua is also endowed with other very important ecoregions and habitats. The extensive pine savannas in the north, shared with Honduras, are the largest natural lowland savannas in Central America and of great biological interest. The region also boasts a mosaic of many other rich and little known habitats such as coastal wetlands, mangroves, bamboo forests, and mid-altitude humid forests. A detailed review of the biological riches of the area was prepared for this project and is available in project files (Espinosa, 1996).

3. Due to fragile soils, the region has little agricultural potential and thus the economy of the Atlantic zone has traditionally been based on limited exploitation of the region's natural resources: small scale forestry, artisanal mining, fisheries, and limited shifting agriculture. Although the numbers for the population of the Atlantic coast vary widely, it is estimated that the Atlantic zone has only 10 percent of Nicaragua's population, about 380,000 people. Until recently, the vast majority of these inhabitants were of Amerindian or African origin, having relatively little adverse impact on the biological riches of the region.The natural resources of the Atlantic slope underpin the regional economy and it is widely recognized that using them sustainably, and not exploitatively, is the key to the future development of the region.

Threats to the Atlantic's Natural Resources: The Country Context

4. Nicaragua is the second poorest country in Latin America. Its per capita income was halved during the 1980s to less than US$400 (World Bank, 1993: *Review of Social Sector Issues*). Recently however, the Nicaraguan economy has begun to reverse many years of real decline in GDP as demonstrated by a 3.3% GDP growth in 1994, 4.2% in 1995, and an estimated 5.5% in 1996.

5. The incidence of poverty is especially high in rural areas. A high proportion of the total population (41%) and of the poor (63%) and extremely poor (78%) live in rural areas. Seventy six percent of the rural population are poor and 36 percent extremely poor, compared to 32 percent and 7 percent, respectively, for the urban population. Sanitary services are available to only 16 percent of the rural population, and drinking water to only 19 percent (UNDP, 1993: *Report on Human Development*).

6. Most Nicaraguans live in the Pacific and Central zones of the country. The Pacific zone contains about 15% of the total land area and 25% of the country's population. It is endowed with rich volcanic soils and considerable potential for agriculture, but unemployment is high and productivity low. Poverty is also widespread in the Central zone, an area of hilly terrain and degraded landscapes.

7. The availability of unowned and unexploited land in the Atlantic acts as a magnet for the disadvantaged from the more densely populated regions. The high rate of population growth, about 3.1% nationally, contributes to the push of colonists. As poor families have migrated from the Pacific and Central zones and as the central government has sought land on which to settle ex-combatants from the civil war, forest clearing for subsistence farming has increased along with extensive livestock operations, commercial logging, mining, and fishing. The agricultural frontier continues to expand quickly (Map IBRD 28756) and the estimated rate of deforestation in the Atlantic is an alarming 80,000 ha/year, or about 2.1% of remaining forest cover.

8. There is a growing concern among national, regional, and local governments that the biological riches of the Atlantic slope are threatened and that the current patterns of frontier development in the Atlantic zone are unsustainable, non-economic, and the source of increasing social and environmental problems. Of particular concern is the vulnerability of the indigenous peoples of the region. There is insufficient regulation of logging and mining concessions, natural resource planning is inadequate, the legal and institutional framework is outdated and incomplete, and there is insecurity of land tenure and access to natural resources.

9. The Government of Nicaragua (GoN) has mandated that large portions of the Atlantic zone be included in the national system of protected areas. However, in most of these areas, there are no management plans or associated activities, protection is weak or non-existent, the legal status is unclear, and the actual boundaries on the ground are ill-defined and unmarked. Combined, these factors present a serious threat to the sustainability of the zone's biological resources and the livelihood of local communities.

Countering the Threats: National Strategies and Policies

10. Over the past few years, the GoN has begun to consider these threats in a systematic way. A National Tropical Forestry Action Plan (TFAP) and a National Environmental Action Plan (NEAP) were approved by Presidential Decrees in 1992 and 1993. A draft National Biodiversity Strategy has recently been prepared, and is now undergoing a process of public consultation. Together these plans warn about the threats to the biological resources in the Atlantic and have led to a four-pronged approach to deal with those. Key elements of the approach include:

- **improving the policy framework**, reforming legislation and coordinating the activities of MARENA, the National Assembly, the judiciary, enforcing agencies, and regional governments;
- **reducing the push factors** behind the agricultural frontier by targeting development resources to regions of high productive potential and high incidence of poverty, namely the Pacific Western Region, the Segovias Region, and the Northern Region;
- **reducing the pull factors** attracting migrants into the Atlantic by minimizing access to areas of high biological importance through: (a) investments in increasing the state presence in protected areas; and (b) recognition of indigenous land rights and demarcation of indigenous lands; and
- **stabilizing and sustaining community livelihoods** in the Atlantic by creating local incentives for sustainable biological management through: (a) fostering local democratic processes to improve the quality of public services for local communities; (b) improving the coordination and deployment of public investment targeted at the Atlantic; (c) giving local communities and municipal and regional governments a say on how resources in their jurisdictions are utilized; and (d) recognizing the rights of communities to rents generated from biological resource use.

11. Since 1987 Nicaragua has taken important steps to improve the **policy framework**. **A General Environmental Law was ratified** in April 1996 covering a wide range of subjects including: (a) natural resource management and land use planning; (b) the creation of a National Environment Council (CONAMA); (c) creation of a National Environmental Fund (FNA) and an Environment Unit in the Attorney General's Office; (d) creation of a National System of Protected Areas; (e) the establishment of an Environmental Impact Assessment process; and (f) general guidelines on biodiversity, forests, wildlife, water, soils, and mineral resources. The law gives the Ministry of Environment and Natural Resources (MARENA) the main role in overseeing its implementation and also assigns new responsibilities to municipal and regional governments, specifically in developing and implementing land use and natural resource management plans.

12. The Constitution of 1987, the Autonomy Law of 1987, and the Partial Reform of the Constitution of 1995 explicitly recognize the rights of indigenous communities in the

Atlantic region to their traditional lands and use of natural resources within those lands (regulations are still lacking however). In October 1996 GoN established the National Commission for the Demarcation of Indigenous Lands with a mandate to initiate the demarcation process, prepare demarcation proposals and carry out the studies required for such purpose. Information on legal issues related to indigenous peoples is included in Annex 5. Proposals for Laws covering forestry, fisheries, mining, energy, and contaminants are under discussion in the National Assembly and various other laws are currently in draft form.

13. The GoN has focused development programs in the Pacific and Central rural zones, thus helping reduce the **push factors** behind the agricultural frontier by creating economic opportunities in the regions of higher potential and origin of most migrants. The main poverty alleviation programs in those regions are the Emergency Social Investment Fund (FISE), focused on high poverty areas (supported by IDA Credit No. 2767-NI); the National Rural Development Program (PNDR), focused on the Central region (supported by the IDB); and the Rural Municipalities Project, focused on the Pacific (supported by IDA Credit No. 2918-NI), which is discussed below.

14. To reduce the **pull factors** in the Atlantic and **stabilize communities**, the GoN is also implementing or developing donor-supported projects to promote conservation and sustainable use of biological resources in the Atlantic. Over the last five years, a total of about US$25 million has been committed or pledged by donors for projects in the Atlantic region. Further information on donor-financed activities is included in Annex 11.

15. International initiatives of the GoN are also of relevance. In recognition of the global importance of the region's biodiversity and the threats to its conservation, the seven Central American governments have established over the past decade institutional mechanisms designed to promote coherent and coordinated programs. These have included the Central American Commission on Environment and Development (CCAD) in 1989, the Central American Convention on Conservation of Biodiversity and Protection of Priority Protected Areas (1992), and the Central American Alliance for Sustainable Development (1994). The CCAD, a Commission composed by the Ministers of Environment of the seven Central American countries, is promoting the Mesoamerican Biological Corridor. The MBC is a mosaic of distinct and diverse forested landscapes, wetlands and marine ecosystems linking the two continental masses of North and South America. A regional UNDP-administered GEF project is currently under preparation which will support the development of the concept in the regional context. The presidential summit of November 1996 established the Central American Fund for Environment and Development (FOCADES), also partially supported by GEF, which would provide financial support for other objectives of the Alliance.

16. While the initiatives mentioned above represent a serious effort to reduce the threats to biological resources and improve the standards of living of communities in the Atlantic, they suffer from lack of coordination, nationally, regionally and sectorally, and as yet, are not integrated into an overall strategic planning framework. While some sites and activities are well supported through projects, other key geographical areas and

community development needs do not receive any kind of support. To integrate the efforts for sustainable management and biological conservation in the Atlantic, the GoN has proposed the Atlantic Biological Corridor (ABC). The ABC would be the Nicaraguan contribution to the Mesoamerican Biological Corridor (MBC). National GEF corridor projects are also in preparation in Panama and Belize (World Bank-administered) and in Honduras (co-administered by World Bank and UNDP). The ABC would be a strategic land use planning and policy framework to promote sustainable resource management in the Atlantic zone by integrating needs, priorities, and decisions of sectoral agencies of the GoN, regional and local governments, communities, and the private sector. The ABC would also be the framework for fostering sectoral and donor coordination and for attracting and optimizing future investments in the Atlantic zone by the GoN and donor community.

Project Origin

17. Consistent with Nicaragua's natural resources strategies, the GoN in March 1994 requested IDA assistance for programs that: (a) would have a large social impact on the poorest groups in the country's main agricultural region (León and Chinandega in the Pacific); and (b) would address natural resources issues nationwide and in particular in the Atlantic region. Project preparation started in October 1994, and three major components were identified to respond to GoN's request: (a) Rural Municipalities Development; (b) Natural Resources Policies and Institutions, and (c) the Atlantic Biological Corridor. Following Nicaragua's ratification of the Convention on Biological Diversity (CBD) in November 1995, GoN requested GEF assistance for the incremental costs associated with the ABC component. In March 1996 a GEF Project Preparation and Development Facility (PDF) grant of US$ 330,000 was approved, and ABC preparation activities began immediately thereafter. Given the headstart in project preparation activities associated with the rural municipalities components, an IDA Credit of SDR 20.9 million (US$30 million equivalent) for the Rural Municipalities Project (Credit No. 2918-NI) was approved by the Board in September, 1996. In November 1996, the GEF Council approved a US$7.1 million grant as part of the GEF work program to finance the incremental costs of the ABC project.

2. THE PROJECT

Objectives of the Integrated Rural Municipalities Project (IDA/GEF)

18. The overall objective of the integrated Rural Municipalities Project (both IDA and GEF-financed components) is to reduce rural poverty and improve natural resources management. More specifically, the project will assist the GoN to: (a) establish a mechanism, based on municipal governments and community organizations, for reducing rural poverty through rural investment in economic infrastructure, improved natural resource management, and small-scale communal productive activities; (b) ensure that central government institutions can provide a coherent overall framework for natural resource policy making and enforcement, accounting for global, national, and regional

environmental priorities; and (c) promote the long-term integrity of a biological corridor along the Atlantic slope of Nicaragua, conserving key global biodiversity values, and ensuring a critical link in the larger regional Mesoamerican Biological Corridor (MBC) .

19. The integrated IDA/GEF/GoN project comprises three components: (a) Rural Municipalities Development; (b) Natural Resources Policies and Institutions, and (c) the Atlantic Biological Corridor. Components one and two are being financed through the IDA credit and counterpart funds, and include the following activities:

(a) institutional development of municipalities; institutional development of INIFOM; information, participation and training for communities and the local private sector; and grants for community and municipality subprojects for environment and natural resource management, municipal and community infrastructure, community productive activities and technical assistance, and training (of which US$3.5 million are targeted at the Atlantic region in support of the ABC initiative);

(b) institutional development of MARENA for policy-making, environment and land use planning and monitoring, and protected area management; and an inter-institutional technical assistance program to assist institutions in charge of implementation and enforcement of environment policies (of which US$0.5 million are targeted at the Atlantic region in support of the ABC initiative).

20. Details on these components are given in the Staff Appraisal Report (Report No. 15562-NI) and the Memorandum of the President (Report No. P-6966-NI) for the Rural Municipalities Project; a summary description can be found in Annex 6. The following sections describe the third component, considered here as the ABC Project. Annex 11 provides further information on how the IDA and GEF financing are complementary to each other and to other donor-financed activities in the Atlantic region of Nicaragua.

Description of the Atlantic Biological Corridor Project

21. The objective of the Atlantic Biological Corridor Project is to promote the integrity of a biological corridor along the Atlantic slope of Nicaragua by ensuring the conservation and sustainable use of biological resources in this region. To meet these objectives, the project will have five components.

Public Communication and Education (Total: US$1 million; GEF: US$0.82 million; GoN: US$0.1 million; Donors: US$0.2 million)

22. In order to achieve the involvement and support of key stakeholders the ABC initiative must ensure a high visibility for the corridor as a concept and as a strategy for the integration of biodiversity concerns within development planning, investments, and regulation. The objectives of the "Public Communication and Education" component are therefore to: (a) begin the process of raising to the level of public debate the ABC and its related issues of "biodiversity in the context of sustainable development"; (b) create broad

public support for the ABC; (c) create social and political incentives for the participation of key stakeholders; (d) generate international recognition for the Nicaraguan effort to foster environmentally friendly international investments in the Atlantic; (e) contribute to the long-term sustainability of the project; and (f) secure donors support. These initiatives will also be helpful in promoting Nicaragua as an ecotourism destination (strategic studies to promote ecotourism are to be financed under the IDA credit; see Annex 6).

23. This component (see complete description in Annex 2) will finance equipment, consultants, studies, workshops, training and dissemination materials, travel expenses and incremental salaries and other recurrent costs for the development and implementation of project promotion and dissemination programs at the international, national, and local levels.

Corridor Planning and Monitoring (Total: US$5.0 million; GEF: US$1.38 million; GoN and regional governments: US$0.1 million; Donors: US$3.5 million)

24. The GoN, as part of project preparation activities, has developed a first approximation of an environment and land use plan for the ABC (Map IBRD No. 28756). The corridor itself is not defined by rigid lines on a map, but by proposed land use patterns, compatible with biodiversity conservation objectives and development needs. As a tool, the ABC is intended as an integrated framework to promote and organize local, national, and donor efforts within the broad context of sustainable development and biodiversity conservation within the Atlantic region.

25. The objectives of the Corridor Planning and Monitoring component are to: (a) carry out a process of participatory planning that, in the short term, would finalize the definition of the ABC and, which in the medium term, would provide an instrument for prioritization and coordination of sustainable development and biodiversity conservation activities within and around the ABC; (b) develop a series of local, regional, and national-level plans reflecting agreements between key stakeholders and decision-makers directed at establishing and conserving the ABC; (c) support to regional governments for international donor coordination; and (d) develop the capacity to monitor the ABC and trends in natural resources use and biodiversity conservation in support of corridor protection and planning, and subsequent prioritization and targeting of ABC-related activities.

26. This component (see a full description in Annex 3) will finance equipment, consultants, training, workshops, seminars, training and dissemination materials, travel expenses and incremental salaries, and other recurrent costs.

Priority Biodiversity Areas (Total: US$8.3 million; GEF: US$3.5 million; GoN, regional governments and beneficiaries: US$0.9 million;Donors: US$4.0 million)

27. The long-term sustainability of the Atlantic Biological Corridor, from a biological perspective, will depend ultimately on the conservation of large areas of intact natural

habitat connected by thinner "strips" of relatively well conserved habitat. The large "nuclei" are particularly important from a conservation biology perspective because their size provides an area of natural habitat sufficient to guarantee the viability of populations of most animals and plant species. The objectives of this component are to: (a) strengthen the management and protection of legally declared protected areas ("the nuclei") within the context of decentralization of the administration and management of the Atlantic Protected Areas System (APAS); (b) enhance the conservation and protection of biodiversity outside of the legally protected areas ("the strips" and buffer zones around the nuclei or nuclei without legal protection status) by influencing the trends in land use toward conservation and sustainable use of biodiversity. Rather then extending over the entire corridor, this component would target resources towards four priority areas, which were identified during preparation based on three criteria: (a) high biodiversity importance (b) currently threatened or likely to be threatened in the near future; and (c) lacking adequate support from donors or GoN. These areas are: the protected areas of Wawashan and Cerro Silva in RAAS; and the mixed protected/non-protected areas of Bacalito and Makantaka in RAAN (Map IBRD No. 28756).

28. This component, described in more detail in Annex 4, will finance investments in the following categories: (a) conservation programs in protected areas; (b) grants for eligible subprojects for community natural resource management plans consistent with the ABC and for subprojects under *quid pro quo* agreements, to provide incentives to communities for the implementation of these plans, in buffer zones, in the non-legally protected areas of high biodiversity importance, and in legally protected areas where there are human populations; and (c) subprojects proposed by communities and/or the private sector that contribute positively to biodiversity conservation and can serve a demonstration or pilot role, including ecotourism subprojects.

Indigenous Communities Development (Total: US$2.4 million; GEF: US$1.28 million; GoN: US$0.2 million; Donors: US$1.0 million)

29. One key element of the GoN's strategy for the Atlantic is to minimize access to high biodiversity areas. One mechanism for achieving this is strengthening and enforcing land and natural resources rights of indigenous communities. The objectives of this component are therefore to strengthen indigenous organizations, to improve their capacity to manage communal natural resources sustainably and to strengthen and enforce their legal land and natural resources rights.

30. This component, described in more detail in Annex 5, will finance consultants, workshops, training and dissemination materials, study tours and travel expenses, and incremental recurrent costs for: (a) strengthening of indigenous organizations including training on natural resource management; (b) support to the GoN's Indigenous Lands Demarcation Commission; and (c) indigenous land demarcation activities.

Support to the Project Implementation Unit (GEF: US$0.12 million; Credit No. 2918-NI: US$1 million for first four years))

31. This component will finance consultant and operating costs of the Project Implementation Unit in the last year of the project when the Rural Municipalities Project will be completed (in the first four years the Project Implementation Unit will be financed through the already approved IDA-financed component of the Rural Municipalities Project for which about US$1 million have been allocated under Credit No. 2918-NI).

3. Project Costs and Financing

Project Costs

32. The cost of the integrated IDA/GEF Rural Municipalities Project with GoN and beneficiary co-financing and donor associated financing is estimated at US$57.3 million. The activities targeted at the Pacific region to reduce the push factors underlying the advance of the agricultural frontier amount to US$36.3 million for Municipal Development Component activities (88% of that total) and Natural Resources Policies and Institutions Component activities (12%). The activities targeted at the Atlantic that directly contribute to the ABC project amount to US$21.0 million, for Municipal Development Component (17%), Natural Resources Policies and Institutions Component (2%), ABC Public Communication and Education Component (5%), ABC Planning and Monitoring (21%), Priority Biodiversity Areas (44%), and Indigenous Communities Development Component (11%). See also the Incremental Costs Analysis (Annex 10).

Project Financing

33. The integrated project will be financed by IDA (Credit No. 2918-NI), GoN, municipal governments, regional governments, beneficiaries and donors (Canada, Holland and the Nordic Development Fund). The activities of the integrated package targeted at the Atlantic that directly support the ABC project would be financed by the proposed US$7.1 million GEF Grant (34%); US$1.2 million of counterpart funds from GoN, regional governments, and beneficiaries (6%); US$3 million from IDA and US$1 million in counterpart funding from GON, municipal governments, and beneficiaries already included in Credit No. 2918-NI (19%); and expected associated financing from CIDA-Canada (US$0.2 million, 1%), Holland (US$5 million, 24%) and the Nordic Development Fund (US$3.5 million, 17%)[1]. The GEF grant of US$7.1 million equivalent (net of taxes) would finance the incremental costs of the project that contribute entirely or largely to achievement of global biodiversity objectives according to the incremental cost analysis summarized in Annex 10. Further details on donor contributions to the Corridor initiative can be found in Annex 11.

[1] These funds have been committed by donors and activities are under preparation or negotiations.

Procurement

34. The GEF Grant would finance civil works, goods (including vehicles), technical assistance, consultants and studies, training, goods, works and services for subprojects, and incremental operating costs. Procurement arrangements are summarized in Schedule B. The MARENA Project Implementation Unit (PIU) would be responsible for procurement arrangements and could delegate some procurement responsibilities to regional governments. MARENA has managed numerous donor projects and will procure part of the Rural Municipalities Project (IDA). Staff of regional governments would also receive training in procurement skills (financed by the IDA credit).

(a) *Goods and Works other than for Subprojects.* IDA's 1995 Procurement Guidelines (amended in January and August 1996) will govern the procurement of goods and works financed under the project. No ICB is expected under the project. Works for the establishment of protected area infrastructure under the Priority Biodiversity Areas Component are estimated to cost less than US$25,000 per contract and up to $541,600 in total, and may be procured under lump-sum, fixed-price contracts awarded on the basis of quotations from at least three qualified domestic contractors. About US$270,600 of these would be contracts of less than US$10,000 for protected area infrastructure in remote areas and may be procured under direct contracting, if three quotations can not be obtained. Vehicles for MARENA will be procured through LIB among suppliers with established maintenance and service records in Nicaragua. Contracts for goods (other than vehicles) would be procured under NCB. Standard bidding documents (SBDs) issued by GoN and satisfactory to the Bank would be used for all NCB under the project. Goods estimated to cost less than US$25,000 equivalent per contract up to an aggregate of US$80,000 may be procured under contracts awarded on the basis of international or national shopping procedures.

(b) *Goods, Works, and Technical Assistance for Subprojects.* The average size of a sustainable use subproject is expected to be US$10,000. About 60 subprojects would be implemented during the project's life. Approximately, 30% of these subprojects will require small civil works, 30% technical assistance and 40% materials and equipment. Procurement for works and goods for subprojects would follow: (i) National Competitive Bidding (NCB) for goods and works over US$25,000; (ii) lump-sum, fixed-price contracts awarded on the basis of quotations from at least three qualified domestic contractors, for small works estimated to cost less than US$25,000 per contract up to an aggregate amount of US$1.5 million equivalent; and (iii) direct contracting for small works in distant or scattered rural areas and where competitive proposals cannot be obtained

for contracts estimated to cost less than US$10,000 per subproject, up to an aggregate amount of US$369,000; and (iv) shopping procedures (international and national) for goods purchases of less than US$25,000 per contract up to an aggregate amount of US$1.5 million.

(c) *Technical assistance, consultants, training, and studies* would be carried out according to the 1997 Guidelines for the Use of Consultants By World Bank Borrowers and by the World Bank as Executing Agency. Technical assistance, consultants, training, and studies under the project would amount to US$4.8 million. Consulting services would consist of: (i) small consultant assignments for individuals and firms providing direct technical assistance to MARENA, regional governments, local committees and communities; and (ii) larger tasks for: participatory mapping of the corridor; promotion and dissemination activities; and implementation of demarcation activities under the Indigenous Communities Component.

35. *Procurement Review.* Prior review thresholds are indicated in table of Schedule B. These arrangements would ensure prior review by the Bank of about 30 percent of the value of all Bank-financed contracts. This prior review coverage is relatively low, but is acceptable in light of the technical audit requirements outlined in para 45 and the procurement training for implementing agencies that is being financed under the IDA credit.

Disbursements

36. The project has a five-year disbursement period and the Closing Date would be March 31, 2003. (The associated Rural Municipalities Project also has a five-year disbursement period and the Closing Date is March 31, 2002). Agreed project activities begun after April 14, 1997 would be eligible for retroactive financing up to a maximum of US$710,000. The estimated disbursement schedule has been determined by the estimated availability of counterpart funding, and the capacity of the implementing agencies.

37. The Grant would be disbursed against eligible project expenditures at the rates of: (a) 85% percent for civil works; (b) 100% for foreign supplied and 80% of locally supplied or manufactured machinery, equipment, vehicles, and furniture; (c) 100% for consultant services, training and studies; (d) 100% of the amount of the grants for subprojects (excluding all taxes); and (e) incremental recurrent costs on a declining basis (80% first two years, 60% third and fourth years and 40% thereafter; see Table in Schedule B).

38. Disbursements would be made on the basis of full documentation for all expenditures made under contracts requiring prior review by the Bank and amendments to contracts for consultant services raising the value of such contracts above the prior review limits. These contracts are: (a) all LIB contracts for vehicles; (b) the first two NCB contracts for goods and works; and (c) consultant services contracts directly procured by

MARENA with an estimated contract amount of US$100,000 or more for firms and US$30,000 or more for individuals.

39. For all other contracts and expenditures, including training expenditures (tuition, travel, and subsistence), grants for subprojects and incremental recurrent costs, disbursements would be made against Statements of Expenditure (SOEs) for which supporting documents would be maintained by MARENA and regional governments and would be available to external auditors and to the World Bank for staff review.

40. Two Special Accounts (SAs) in US dollars would be opened in a commercial bank acceptable to the Bank. SA-A would be for the Public Communication and Education Component, Planning and Monitoring Component, and Strengthening of Indigenous Communities Component and would be managed by the MARENA PIU. SA-B would be for financing the biodiversity priority areas subprojects, the sustainable use subprojects, and the outreach subprojects and would be managed under the FNA . The deposits in SA-A would be US$320,000 and in SA-B would be US$80,000 corresponding to about four months of average expenditures for the components associated with each special account.The SAs would be replenished monthly (but no less frequently than every three months), or whenever one third of the authorized amount has been withdrawn, whichever occurs first.

41. MARENA and the FNA will be responsible for submitting regular replenishment requests with appropriate supporting documents for expenditures under the project. The documents would include: (a) a standard withdrawal application (Form 1903) for the total amount of eligible project expenditures; (b) SOE form for expenditures not requiring documentation; (c) standard summary sheets (designed for each subproject and included in the disbursement letter) for prior review items with accompanying supporting documentation; and (d) reconciled bank statements reflecting transactions made through the special account. The use of grants by municipalities and communities would be monitored through auditing procedures, the monitoring systems and project and subproject supervision arrangements.

Financial Controls, Accounts, and Auditing

42. MARENA and FNA will maintain separate records and accounts for project expenditures as well as a register of assets purchased with project funds. MARENA would also have the responsibility for preparing the project's financial statements, including sources and uses of funds statements, according to internationally accepted accounting standards. MARENA will also receive technical assistance to help establish accounting procedures acceptable to the Bank. MARENA will prepare financial statements for its own managed funds as well as consolidated project financial statements based on the project financial statements submitted by other executors of project activities.

43. A process for selection of auditors and the auditors' TORs were agreed with MARENA during appraisal of the Rural Municipalities Project. The same process will be used by MARENA and FNA for selection of auditors for the GEF project. The selection

process includes pre-qualifying audit firms, contracting auditors for one year with a provision to extend for a further two years based on satisfactory performance, and initiating the process for selection of auditors during project preparation with the objective of having auditors in place by the start of grant disbursements. MARENA would contract audit firms to audit the consolidated financial statements for all components of the project (including for funds managed by the FNA).

44. The auditor's report would include audits of the special accounts A and B, an opinion on the use of statement of expenditures (SOEs), confirmation that project implementation was in accordance with provisions of the legal agreement, and verification of procurement transactions. The auditor's TORs also include a review of internal controls and preparation of a management letter. Audit reports would be submitted to the Bank up to within six months of the close of the fiscal year. The first audit reports would cover the first year's disbursement as well as disbursements under the GEF PDF Block B grant (which financed project preparation) under separate TORs.

45. Technical audits would be carried out separately. Technical audits would consist of simple checks of subprojects ensuring that what is purchased is in fact there and that the appropriate procurement procedures were used for the purchases involved **During negotiations assurances would be sought that the above accounting and auditing arrangements would be followed and this would be covenanted in the Grant Agreement.**

Project Implementation Arrangements

46. The success of a project which seeks to influence land use patterns over half of Nicaragua depends on the participation of many organizations during its implementation. The following text outlines the roles of the key participants (see additional details in Annex 7).

47. *CADES* and *CONAMA*. The Sustainable Development Council (CADES), once established (expected for June 4, 1997), would be the principal group for intersectoral coordination in order to achieve sustainable development. The National Environmental Council (CONAMA) was created by the Environmental Law of April 1996, and would be the principal consultative group to GoN for the analysis, discussion, and negotiation of environmental policies. In the context of this project, with the assistance of MARENA and the Project Implementation Unit (PIU), CONAMA would convene events, provide leadership in establishing roles of public sector institutions and serve as the forum for resolution of intersectoral conflicts arising out of inconsistencies between development policies and ABC strategies.

48. *MARENA*. The Ministry of Natural Resources (MARENA) would be responsible for the implementation of the ABC initiative. The principle roles of MARENA would be to administer the project, manage procurement, promote the ABC, assist regional governments, and carry out monitoring. Within MARENA, a Technical Committee comprising the heads of the Directorates of Planning, Protected Areas, Forestry,

Environment, and Regional Administration will meet regularly to coordinate activities related to the project (details of the roles of each Directorate are given in Annex 7).

49. *MARENA Project Implementation Unit.* To enable MARENA to perform its functions under the ABC project as well as those under the Rural Municipalities Project, a Project Implementation Unit (PIU), financed by IDA and the GoN, was created. The PIU will assist MARENA to perform its administrative, reporting, implementing, and supervisory roles for the project. The PIU will include an Implementation Coordinator, two Regional Project Coordinators to be physically located in the Planning Units of the regional governments, an indigenous peoples and participation expert, a procurement officer and an accountant and disbursement officer. The PIU would be responsible for preparing the TORs, approve expenditures and supervise activities under the Public Communication and Education Component and Planning and Monitoring Components. The PIU will also prepare TORs and coordinate the bidding process for service providers for the activities under the Indigenous Component, based on recommendations from the National Commission for the Demarcation of Indigenous Lands (NCDIL) or any such entity as may be established. Activities under this component (other than direct support to the Demarcation Commission) would be implemented by NGOs or private firms specifically recruited for that purpose. **Establishement of the PIU with staff acceptable to the Bank was a condition of negotiations and has been complied with and maintaining such PIU would be a covenant in the Grant Agreement.**

50. *FNA*. The National Environmental Fund, created by the Environmental Law of April 1996, would be the financial mechanism for channeling funds for the Priority Biodiversity Areas Component. FNA would also assume responsibility for the financial sustainability of protected areas in the Atlantic (seed funds to be provided by IDA and donors) and for continuing ABC activities beyond the life of the GEF grant. The setting up costs of FNA would be covered by the IDA financed Natural Resources Policies and Institutions Component and it would be capitalized through donor contributions (and possibly debt for nature swaps being explored). GEF funds would support some fund raising activities for FNA.

51. The FNA, as conceived in the Environmental Law of 1996, will be an umbrella fund, capable of managing, through separate and semi-autonomous accounts, funding for specific projects and from a variety of sources. The first account to be established under the framework of the FNA will be the ABC/GEF Account. During project preparation, the design process of both the umbrella structure of the FNA and the ABC/GEF Account were outlined. This design process will be initiated under the supervision of the ABC Project Coordinator in MARENA and will include the revision of the FNA regulations which were submitted to the Bank for comments prior to negotiations.

52. The design of the FNA and the ABC/GEF Account will produce, *inter alia*, a decree and a project specific operational manual (ABC/GEF Account) that will be required for the FNA to function effectively at both levels: as an umbrella fund and as a project-specific account respectively. These operation manuals will be approved by FNA's Board of Directors prior to disbursements for the Priority Biodiversity Areas Component

subprojects, expected to start in January 1999. The design team, under the coordination of the design supervisor appointed or designated by FNA's Board of Directors will produce the TORs for all key personnel and will assist in the evaluation and selection of candidates for the key positions at both levels, including that of executive director of the FNA. **Submission to the Bank of draft regulations for the FNA is a condition of negotiations and has been complied with. Conditions of disbursements for payments under the FNA are that (a) a decree regulating, in form and substance satisfactory to the Bank, the operations of the FNA shall have been enacted and published in the Gazette; (b) the Board of Directors and an interim Director of the FNA shall have been appointed and/or designated; (c) the FNA has adopted the Operational Manual; (d) the FNA Subsidiary Agreement has been executed; (e) the local Committees have been established; and (f) the GEF/RAAN and GEF/RAAS implementation agreement shall have been entered into.**

53. *Regional Councils and Regional Governments.* Both of the Regional Autonomous Governments (RAAN and RAAS) currently maintain regional planning offices. These offices, to be supported through the Natural Resources Policy and Institutional Strengthening Component of the IDA project and through activities included in the ABC Project, would be responsible for the implementation and supervision of all activities at the regional and sub-regional levels involving ABC promotion and dissemination, planning and monitoring, conservation and sustainable use in priority biodiversity areas as well as co-supervision of indigenous land demarcation, training, and strengthening of indigenous organizations. The Regional Project Coordinators would be located in these offices and would assist them in performing their roles. **A condition of negotiations would be the submission of draft implementation arrangements with regional governments (one each with RAAN/RAAS and MARENA/GEF).**

54. *Local Committees.* Two Local *Ad Hoc* Committees representing communities, private sector, and local government would be created in RAAN and RAAS. These committees would play a role in protected area management and sustainable use projects, have oversight over use of funds of the Priority Biodiversity Areas Component, and help coordinate local planning and participatory activities. They would also serve as a local conflict resolution mechanism for issues pertaining to the ABC and development needs. These committees would be associated with a local NGO that would serve as their operational and legal arm (see Annex 7 for more details of roles). The NGO would assist the local committee with preparation of land use plans and their submission Regional Governments (Planning Unit) for approval. **A condition of disbursements for payments for subprojects under the FNA would be that (a) the local commissions in RAAS and RAAN have been established; and (b) the RAAS and RAAN Implementation Agreements have been signed.**

55. *Communities and Community Organizations.* Community organizations would prepare and submit biodiversity conservation or sustainable use subproject proposals. The Priority Biodiversity Areas component of the ABC Project would provide resources for the incremental costs of subprojects of communities that have a direct positive impact on biodiversity. Details of eligible subprojects and approval procedures will be provided in

the ABC Fund Operational Manual. For sustainable use subprojects, indigenous communities would also submit subproject proposals to the Local Committees following the same procedures as non-indigenous communities. Development needs of communities would be financed through the Municipal Development Component of the Rural Municipalities Project. See Annex 7 for details on implementation arrangements.

Project Supervision

56. Day-to-day supervision of the project will be carried out by MARENA/FNA and by the regional governments. The World Bank and the GoN will monitor the project's overall progress during joint supervision missions, annual reviews, and an Implementation Completion Report.

Monitoring, Evaluation, and Reporting Requirements

57. MARENA will monitor overall project progress and provide quarterly reports (for the quarters ending March 31, June 30, September 30 and December 31) to the Minister of Finance and the World Bank. Progress will be measured against the indicators included in Annex 9. The reports will be furnished to the Bank no more than one month after the completion of each quarter. Each year, GoN and the Bank will carry out annual reviews. Before such a review would take place, GoN and the Bank will agree on detailed TORs and staffing of the review teams. In particular the reviews would analyze: (a) status of community participation and the role of regional governments and local committees in promoting it; (b) status of the ABC planning and the integration of the ABC in municipal land use plans; (c) status of ABC promotion and dissemination activities; (d) status of priority biodiversity area subprojects and community natural resource plans; and (e) procurement, disbursements, and financial aspects. Not later than six months after the project closing date, the GoN and the Bank will carry out a joint project completion review and produce an Implementation Completion Report. **Assurance will be sought that monitoring of the project is done according to the indicators in Annex 9.**

Environmental Impacts

58. Although the project overall is environmentally beneficial, some of the investments and subprojects, namely some small infrastructure investments, may pose modest environmental risks. The project is therefore classed as a Category "B" project for purposes of environmental assessment. The same screening and environmental assessment procedures and institutional responsibilities that are being used in the Rural Municipalities Project (Credit No. 2918 - NI) would be utilized for the ABC project as well; these are described in detail in the Project Operational Manual for the integrated project and will be referenced or redescribed in the Project Operational Manual under preparation for the GEF Project.

59. The project includes components that specifically are targeted at indigenous communities but all the components engender positive or negative risks for these

vulnerable groups. An Indigenous Peoples Development Plan (IPDP) was therefore produced, through extensive consultation with indigenous communities, during preparation of the project. The full IPDP is available in the Project Files; see also Annex 5. Additionally an IPDP containing specific legislative changes to be considered, will be finalized during negotiations and implemented as part of the Project.

5. PROJECT JUSTIFICATION

Rationale for GEF Financing

60. This project is eligible for GEF funding in line with two of the four operational programs under the Operational Strategy for Biodiversity: Mountain and Forest Ecosystems; the project will also strengthen protection of coastal wetlands and freshwater ecosystems. In accordance with Article 8 of the Convention on Biological Diversity (CBD), the project focuses on *in situ* conservation and sustainable use of biodiversity in the Atlantic Corridor across a range of ecosystems and altitudinal gradients from mountains and tropical forests to coastal wetlands. It would help to protect biodiversity in the regionally and globally distinctive Miskito Pine Savannas and the most extensive areas of remaining natural forests in Central America.

61. The project is consistent with guidance from COP1 and COP2 (first and second Conferences of the Parties) of the CBD to support conservation and sustainable use of ecosystems and habitats; it would include capacity building and promote sustainability through demonstration projects and innovative measures to strengthen the involvement of local communities and indigenous people in biodiversity management; and would integrate conservation and sustainable use with regional development programs.

62. The project is identified as a national priority in the Tropical Forestry Action Plan (TFAP), the National Environmental Action Plan (NEAP), and the draft National Biodiversity Strategy which is now undergoing a process of public consultation. The project will conserve and maintain biodiversity in a crucial segment of the Mesoamerican Corridor running from Mexico to Colombia. It is consistent with the regional operational framework being developed for the Corridor by CCAD, and will complement national initiatives to protect the habitat corridor in neighboring Honduras and Costa Rica. The integrated IDA/GEF project will help to address some of the root causes of biodiversity loss in Nicaragua by providing support for agricultural intensification in the more fertile western Pacific regions, thereby slowing agricultural expansion into the Atlantic corridor, and by strengthening the legal and institutional framework for natural resource management.

63. The proposed project was reviewed by an expert from the GEF's Scientific and Technical Advisory Panel (STAP) roster in May 1995, prior to preparation of the ABC component with GEF PDF support. The expert concluded that the ABC component was a strong candidate for GEF funding and should be supported. The integration of IDA and GEF funding was considered to provide a positive framework for biodiversity

conservation, and the GEF funding was seen to be leveraging IDA resources on behalf of the Corridor. The STAP reviewer also flagged some important risks to successful project implementation and underlined the need to address these constraints. These included: the highly fluid social situation characterized by the influx of new settlers with little organization; the potential for conflicts between the semi-autonomous regional governments and the central government; and the weak framework for community participation in the Atlantic region. All of these issues have been addressed during preparation of the IDA/GEF integrated project.

Rationale for World Bank Involvement

64. The Country Assistance Strategy (CAS) for Nicaragua, presented to the Board on May 27, 1994 (Report No. P-6340-NI), has the following four key objectives: (a) reviving growth; (b) reforming the public sector and strengthening institutional capacity; (c) improving environmental and natural resource management; and (d) alleviating poverty and investing in human capital. The proposed ABC Project would support the third CAS objective of improving environmental and natural resource management. It would also contribute to alleviating rural poverty in the Atlantic region and strengthening institutional capacity, particularly of the regional governments in RAAS and RAAN. Finally the project, by providing a strategic framework for natural resource use in the Atlantic and strengthening regional and local governments and community organizations, would help make donor and GoN financed projects more effective.

Lessons Learned and Technical Review

65. The design and preparation of the proposed project has drawn on lessons derived from World Bank experience in implementing biodiversity projects. A recent World Bank report, *Mainstreaming Biodiversity in Development: A World Bank Assistance Strategy for Implementing the Convention on Biological Diversity*, highlights some of the key factors contributing to successful project implementation. These include: institutional strengthening, participation of local stakeholders, financial sustainability, flexible and iterative processes, and decentralized management of protected areas.

66. To date there have been no GEF-financed projects in Nicaragua, but experiences of rural development projects financed by bilateral agencies in the Atlantic region by DANIDA, GTZ , the Netherlands, and The Nature Conservancy (TNC) confirm these lessons. These projects have found that small farmer training for the adoption of appropriate technologies is the single most cost efficient intervention for environmental protection in the region. They also found that assistance to indigenous communities for the recognition of their lands and natural resources rights are an essential condition for project success where indigenous communities are present. Other activities which contribute positively to project success include: community development activities, such as schools, which help to stabilize migrant populations, support for land titling for small farmers, support on environmental matters to local governments and to regionally based

representatives of the central government, and support to inter-institutional and NGO coordinating mechanisms. The proposed project incorporates these lessons learned.

Project Sustainability

67. The activities to be implemented under the ABC project will lay the groundwork for increasing the probability of the long term sustainability of the ABC and the ecological values and livelihoods associated with it. Sustainability of the ABC will be more likely as a result of:

- wide and aggressive promotion and dissemination of the concept of the ABC with local communities, regional and national institutions, international organizations, and society at large;
- improved coordination of activities between regional governments and the international donor community;
- a strategy and an action plan to continue attracting international and domestic funds to support corridor related activities beyond the life of the project;
- strengthening of local organizations and in particular demarcation of indigenous lands and assistance to indigenous communities which have a stake on the sustainability of the natural resources on which they depend; and
- a financial mechanism (under FNA) to ensure the financing of recurrent costs of protected area management (to be supported by the IDA financed components of the Rural Municipalities Project).

68. Successful implementation of the activities associated with the Rural Municipalities Project will improve the chances for success of the GEF Project. This will be accomplished primarily through a reduction of the "push factors" from the Central and Western regions and through improved capacity to design and implement environmentally friendly policies by key government entities, particularly at the municipal level.

Social Assessment and Beneficiary Participation

69. Over 70 *mestizo*[2] communities in the Atlantic zone were consulted during project preparation. Their representatives participated in numerous workshops and public forums and through this participation provided valuable input into the design of project component activities. The groundwork laid during the preparation stage will be expanded and deepened during implementation. Additional details on the process and results of the participatory methodology used during preparation can be found in Annex 8.

70. During project implementation, the following categories of activities will be undertaken to foster participation:

[2] *Mestizo* populations are those of mixed Spanish and indigenous heritage and which speak Spanish as a mother tongue.

(a) *Information Sharing:* the ABC will continue financing promotion and dissemination to the general public and key stakeholders. The content of this information will include the concept of the corridor, sector studies, and monitoring results which would promote stakeholder involvement in project implementation. The project will also finance three attitudinal surveys.

(b) *Participatory Planning:* In-depth mapping and studies of ecosystems and landscapes completed during project preparation identified areas for technical assistance and investments. The ABC Project will finance participatory mapping exercises for the Corridor concept at the local level. The ABC Project will also finance strengthening of participation of key stakeholders in the Local Commissions. At the local level, the related Rural Municipalities Project will finance participatory land use planning activities and participatory municipal investment plans in the Atlantic region, consistently with the ABC concept. Participation of women in these activities will be promoted.

(c) *Participatory Monitoring:* Local communities, NGOs, regional academic institutions, and the private sector will be actively involved in the ABC Biodiversity Monitoring System and the Implementation of activities described in the Monitoring sub-component. All these stakeholders will have access to the processed information so they can make better decisions regarding the use of their natural resources.

(d) *Demand Driven Investments in Priority Biodiversity Areas:* The ABC Project will finance the incremental cost of training community groups in addressing environmentally sound practices in subproject preparation and preparation of conservation projects. The ABC Project will also finance projects to ensure conservation practices and pilot projects to demonstrate how sustainable use of biological resources can contribute to community development. Development projects and community strengthening, identified in the investment plans, would be financed by the related Rural Municipalities Project.

(e) *Demarcation of Protected Areas and Indigenous Lands:* Many mestizo communities have been living for decades in regions claimed by indigenous communities and protected areas. The project will finance participation of representatives of these mestizo communities in dialogue-promoting activities.

Indigenous Peoples Issues

71. About 130 indigenous communities of the Atlantic were consulted during project preparation. The most important issue for indigenous peoples of the Atlantic coast of Nicaragua is recognition of their rights to land and the use of natural resources. This issue is key because without legal title to the land, indigenous communities cannot duly claim communal rights to the land. Additionally, without legal recognition of their land rights, they cannot have exclusive use and control of natural resources.

72. The indigenous patterns of natural resource management are still predominantly traditional, based on subsistence needs. They combine shifting agriculture with hunting and gathering, plus fishing. Although traditionally indigenous communities have managed their natural resources and have been able to maintain their forests, population growth, coupled with increasing material needs have led them to disregard their old customs and to extract resources in non-sustainable ways.

73. Improved natural resource management and development in these areas require a concerted effort, based on technical assistance, training and focused investments, not only to improve production but to create marketing channels so that people can sell under less exploitative conditions. During project preparation an Indigenous Peoples Development Plan (IPDP) was produced. The IPDP, which is summarized in Annex 5, included two legal analyses of indigenous rights in Nicaragua and detailed recommendations of legal reforms to facilitate the recognition of indigenous lands (Roldan, 1996; see Annex 13), a diagnostic and socio-economic evaluation of problems, needs, and priorities of almost all indigenous communities in the Atlantic, and a short-term and a medium-term legal action plan of GoN for advancing the legal agenda necessary to permit the recognition of indigenous land rights. The design of the Indigenous Communities Development Component is based on the recommendations detailed in that Plan. Additional information on the IPDP can be found in Annex 5.

74. The most important aspect of the IPDP is the recognition of indigenous land and natural resources rights, consistently with the Nicaraguan Constitution of 1995. Lack of formal recognition is a source of tensions and conflicts in the Atlantic region that pose substantial risks for project success. Moreover recognition of indigenous rights is an essential condition to help slow down the advance of the agricultural frontier and to improve the sustainability of natural resource management, both key to the long term sustainability of the ABC. Due to the history of conflict it is important that this process be carried out in the most transparent manner with permanent consultations with and participation of both indigenous and non-indigenous stakeholders. While the mechanisms for advancing with this process would be through the National Commission for Demarcation of Indigenous Lands (NCDIL) both GoN agencies and indigenous representatives have expressed the need to increase the indigenous representation in the Commission. **During negotiations agreement would be sought on the exact representation of indigenous peoples in the NCDIL and the change in the composition of the NCDIL, if necessary, would be a condition of effectiveness. The legislation that most likely will be required (and is to be reviewed by the GoN)**

includes: (a) a low to authorize an agency of the GoN to issue titles to indigenous communities of the communal nature recognized in the constitution, (b) a decree with the procedures and most appropriate agency to carry out the demarcation activities, and (c) a low or decree with an efficient procedure to grant legal entity status to indigenous communities. To lower project risks and increase its chances of success **a condition of effectiveness would be that "demarcation and titling legislation described above shall have been prepared and any draft law included in such legislation shall have been submitted to the National Assembly".** To ensure that demarcation activities for indigenous lands result in a formal recognition of those lands **a condition of disbursements for indigenous land demarcation would be that "the decree or decrees included in the Demarcation and Titling Legislation shall have been enacted and, if applicable, a new agency shall have been established in a manner satisfactory to the Bank".** Finally **a legal covenant would be that GoN would carry out the IPDP, to be formally submitted during negotiations, and summarized in Annex 5, according to its terms.**

Gender

75. The social analyses and the IPDP conducted during project preparation were gender focused and collected much useful information on investment needs and priorities of women. Participation of indigenous women in community and family life varies widely, from active participation and leadership in the Miskito communities to a less conspicuous profile in the Mayagna communities. *Mestizo* women tend to be more active in community affairs than the Mayagna, but less so than Miskito women. In all communities, as is the case in most rural areas, women play a key role in managing yard crops and water provision. In many cases, the backyard crops are the most important source of food for the family. Women also play an important role in post-harvest activities. Traditional knowledge of use of medicinal herbs is passed on between women. Not surprisingly, in most of the communities visited, the only health provider was the midwife. When asked "Who would you like to manage funds for you?", many of the interviewed communities identified their female health provider or female teacher. Consistently across communities, women tend to identify water management as the main priority. Women requested assistance for improving yard and subsistence agriculture, medicinal herb gardens, and raising of domestic animals. **Some women in larger communities requested assistance to** start sewing or baking microenterprises.

76. To address gender issues during project implementation, the methodology to be used for participatory activities will promote participation of women, especially in communities where their participation is traditionally less conspicuous. Women will receive a proportional share of **sub-project investments as well as technical assistance** targeted specifically at them. The attitude surveys, to be conducted on three occasions during the project, will include gender-specific questions to evaluate if the project is addressing women's needs. Finally, the participation and indigenous peoples expert in the Project Implementation Unit will be responsible for ensuring that gender issues are addressed at all stages **of project implementation.**

Project Benefits

77. The main project benefits are: (a) conservation of the biodiversity of Atlantic Nicaragua of which very little is known; (b) sustainability of a corridor linking North and South America which will support important ecological processes; (c) increased awareness internationally. nationally, and locally of the importance of Nicaragua's biological resources; (d) improved land use planning, sectoral and donor coordination nationally and regionally; (e) improved capacity to manage financial resources for the environment through the FNA; (f) improved standards of living of Atlantic communities through the diffusion of activities and training on sustainable management of biological resources; (g) strengthened regional institutions and stronger local decision-making processes in a region afflicted by conflict in the past; (e) stronger indigenous organizations and communities with clearer land and natural resources rights; and (f) creation of better conditions for biologically friendly investment in the Atlantic by improving the international image of the region and through promotion of ecotourism and other related activities.

Project Risks

78. In promoting the design of a land use strategy for the Atlantic, including the definition of corridor areas of high priority for biodiversity conservation, the major issue facing the ABC component was the need to look beyond strictly sectoral concerns. Its long-term success depends on addressing root causes of poverty and migration on the Pacific slope and Central region of Nicaragua, understanding and addressing key issues related to the indigenous populations of the Atlantic, and mobilizing and coordinating support from government agencies and donors. By integrating the proposed ABC conservation program with investment activities targeted to the rural municipalities in the Pacific, and by stressing the need to work with indigenous peoples to realize common goals, significant progress has been made in addressing these issues.

79. However, significant risks remain, the most important of which include: high rates of population growth which may within one or two generations weaken any attempt to slow the agricultural frontier; financial sustainability of protected areas; the capacity of MARENA and regional governments; the capacity of beneficiaries to generate high quality subprojects; the possibility of non-support and non-participation of key stakeholders; and the possibility that sector coordination will fail and public and private investments will create imbalances that will increase threats to the corridor. Although some of these risks (e.g., population growth) are beyond the scope of the project, some measures were taken to address these risks, including strengthening of MARENA, building the capacity of communities, and a participatory approach to ensure stakeholder ownership. Substantial resources were allocated to the Public Promotion and Education Component and to the Planning and Monitoring Component to ensure that Nicaraguan society benefits from full information about the project and hence can make better decisions related to it. These activities should help to ensure that key GoN agencies internalize the ABC concept in their public investment decisions.

80. Even with these measures the project is risky due to the recent history of conflict from which the Atlantic region has not yet fully recovered and the lack of clarity over land (demarcation and titling procedures) and natural resources rights (of communities, local and regional governments, concessionaires and central government). Tensions remain high and there is limited capacity to resolve conflict. Although the project includes measures to address these issues directly, such as calling for preparation of laws and regulations for the demarcation and titling of indigenous lands and for clarification of natural resources rights (to be financed by the associated Rural Municipalities Project) if the necessary laws are not enacted or enforced, these risks cannot be eliminated.

6. AGREED ACTIONS

Conditions of Negotiations

81. Conditions of negotiations are:

(a) Submission of a legal agenda for indigenous land demarcation (completed);

(b) Draft regulations for FNA (completed)

(c) Draft implementation agreements with regional governments;

(d) Establishment by MARENA of a Project Implementation Unit with responsibilities and staff qualifications and expertise acceptable to the Bank (completed); and

(e) Draft Operational Manual.

82. During negotiations assurances would be sought that:

(a) Procurement arrangements would be as described in Schedule B of the Project Document;

(b) Accounting and auditing arrangements would be as described in the Project Document.

Conditions of Board Presentation

83. There are no special conditions of Board presentation.

Conditions of Effectiveness

84. Conditions of effectiveness would be that:

(a) decree amending composition of National Commission for Demarcation of Indigenous Lands has been published consistently with agreement reached during negotiations; and

(b) demarcation and titling legislation for indigenous lands shall have been prepared and any draft law included in such legislation shall have been submitted to the National Assembly.

Conditions of Disbursements

85. Conditions of disbursements would be:

(a) for payments for subprojects (i) a decree regulating, in form and substance satisfactory to the Bank, the operations of the FNA published in the Gazette; (ii) the FNA has adopted the Operational Manual; (iii) the Board of Directors of the FNA shall have been constituted and an interim director for the FNA shall have been appointed and/or designated; (iv) the FNA Subsidiary Agreement has been executed; (v) the respective Local Commission will have been established; and (vi) the FNA/RAAS or FNA/RAAN Implementation Agreements have been signed; and

(b) for payments for indigenous land demarcation activities the decree or decrees included in the Demarcation and Titling Legislation shall have been enacted and, if applicable, a new agency shall have been established in a manner satisfactory to the Bank.

Assurances

The following assurances would be sought:

(a) GoN would monitor the project according to the indicators in Annex 9;

(b) carry out annual reviews;

(c) promote, identify, appraise, approve, carry out, and monitor subprojects according to the procedures of the Operational Manual of the FNA;

(d) maintain a unit managed and staffed by professionals with qualifications, experience, functions, and responsibilities satisfactory to the Bank assisted by qualified administrative personnel in adequate numbers;

(e) carry out the Indigenous Peoples Development Plan according to its terms.

Recommendation

86. Based on the above, the proposed project is suitable for a GEF grant of SDR ____ million (US$7.1 million equivalent) to the Republic of Nicaragua.

Schedule A

NICARAGUA
ATLANTIC BIOLOGICAL CORRIDOR
Estimated Project Cost by Component for ABC and Associated Projects
(US$ 000)
Total including Contingencies

	ABC Components		Associated Rural Municipalities Project Components (Activities in the Atlantic) CREDIT NO. 2918-NI		ABC Associated Donors Financing	TOTAL
	GEF	GoN[3]	IDA	GoN	ASSOCIATED DONOR FINANCING[4]	
A. MUNICIPAL DEVELOPMENT (INIFOM)						
1. Institutional Development of Municipalities			0.3	0.3		0.6
2. Information, Participation and Training			0.3	0.0		0.3
3. Community Subproject			1.7	0.7		2.4
4. Institutional Development of INIFOM			0.3	0.0		0.3
Subtotal MUNICIPAL DEVELOPMENT			2.6	1.0		3.6
B: NATURAL RESOURCES POLICY REFORM AND INSTITUTION (MARENA)						
1. Strengthening of MARENA (includes PIU)	0.12	0.01	0.2	0.1		0.4
2. Inter-institutional Strengthening			0.2	0.0		0.2
Subtotal NATURAL RESOURCES POLICY REFORM AND INSTITUTION	0.12	0.01	0.4	0.1		0.6
C. PUBLIC COMMUNICATION AND EDUCATION						
1. International Level Program	0.25	0.03			0.2	0.5
2. National Level Program	0.38	0.04				0.4
3. Local Level Program	0.19	0.02				0.2
Subtotal PROMOTION AND DISSEMINATION	0.82	0.09			0.2	1.1
D. PLANNING AND MONITORING						
1. Corridor Planning	0.53	0.03			3.0	3.6
2. International Donors Coordination	0.07	0.02				0.1
3. Monitoring	0.78	0.04			0.5	1.3
Subtotal PLANNING AND MONITORING		0.09			3.5	5.0
E. PRIORITY BIODIVERSITY AREAS						
1. Conservation of Priority Biodiversity Areas	2.39	0.38			4.0	6.8
2. Sustainable Use	1.12	0.47				1.6
Subtotal PRIORITY BIODIVERSITY AREAS	3.51	0.85			4.0	8.4
F. INDIGENOUS COMMUNITIES						
1. Organizational Strengthening	0.24					0.2
2. Land Demarcation	1.04	0.19			1.0	2.2
Subtotal INDIGENOUS COMMUNITIES	1.28	0.19			1.0	2.4
TOTAL Project Costs	7.11	1.23	3.0	1.2	8.7	21.2

[3] Including Municipalities and beneficiaries (for IDA only; beneficiary counterpart is US$375,000 for GEF).

[4] The associated financing comes from the Canadian Government (CIDA), the Dutch Government (PROCODOFOR), and the Nordic Development Fund.

Schedule A

NICARAGUA
ATLANTIC BIOLOGICAL CORRIDOR
Estimated Project Cost by Component (GEF and GoN Funding only)

(US$ 000)
Total including Contingencies

	1998	1999	2000	2001	2002	Total
A. PUBLIC COMMUNICATION AND EDUCATION						
1. International Level Program	98.1	36.1	67.8	36.1	36.1	274.2
2. National Level Program	122.0	93.8	64.5	76.8	64.5	421.5
3. Local Level Program	55.5	52.8	52.8	18.0	36.8	215.8
Subtotal PROMOTION AND DISSEMINATION	275.6	182.6	185.5	130.9	137.4	911.4
B. PLANNING AND MONITORING						
1. Corridor Planning	168.6	74.6	165.8	41.6	111.3	561.8
2. International Donors Coordination	16.5	16.5	16.5	16.5	16.5	82.5
3 Monitoring	189.9	220.2	119.3	197.6	93.7	820.7
Subtotal PLANNING AND MONITORING	375.0	311.3	301.6	255.7	221.5	1,464.9
C. PRIORITY BIODIVERSITY AREAS						
1. Conservation of Priority Biodiversity Areas	342.6	865.8	550.0	552.0	459.5	2,769.9
2. Sustainable Use	173.0	398.0	360.0	325.0	325.0	1,581.0
Subtotal PRIORITY BIODIVERSITY AREAS	.515.6	1263.8	910.0	877.0	784.5	4,350.9
D. INDIGENOUS COMMUNITIES						
1. Organizational Strengthening	88.8	66.6	66.0	11.0	11.0	242.0
2. Land Demarcation	500.5	423.5	302.5	-	-	1,226.5
Subtotal INDIGENOUS COMMUNITIES	588.5	489.5	368.5	11.0	11.0	1,468.5
E. TECHNICAL COORDINATION UNIT	-	-	-	-	125.0	125.0
Total PROJECT COSTS	1,754	2,247	1,765	1,274	1,279	8,320.7

SCHEDULE B

NICARAGUA
ATLANTIC BIOLOGICAL CORRIDOR PROJECT

Summary of Proposed Procurement Arrangements
(GEF and GoN Funding only)
US$ thousands (including contingencies)

Procurement Method

Project Elements	ICB*	NCB**	Other*	N.B.F.	Total
1. *Works*	---	---	541.6 a/ (498.2)	--	541.6 (498.2)
2. *Goods including vehicles*	----	186.7 (186.7)	187.6 b/ (187.6)	-	374.3 (374.3)
3. *TA, Consultant Services & Studies*	----	----	4,607.8 d/ (4,179.0)	---	4,607.8 (4,179)
4. *Training*	----	----	220.0 (220.0)	---	220.0 (220.0)
5. *Subprojects*	---	369.0 (281.5)	1,476.0 c/ (1,126.1)	---	1,845.0 (1,407.5)
6. Incremental Recurrent Costs	----	----	732.1 (420.7)	---	732.1 (420.7)
Total	----	555.7 (468.2)	7,765.0 (6,632.2)	---	8,320.7 (7,100.4)

Notes: Figures in parentheses are the respective amounts financed by the GEF.
a/ Three quotations (US$270,800) and direct contracting (US$270,800)
b/ Limited International Bidding for vehicles (US$107,600) and international or national shopping for other goods (US$80,000)
c/ Three quotations (US$1.5 million) and direct contracting (up to US$750,000) for works. National shopping for goods (US$1.5 million). Consultants Guidelines for technical assistance (up to US$1.5 million).
d/ According to Consultants Guidelines (QCBS approx. US$ 2.5 million, CQ approx. US$ 1 million, Individuals approx. US$ 1.1 million).

Estimated Grant Disbursements by Year
(GEF and GoN Funding only)
(US$ Million)

Fiscal Year	Year 1	Year 2	Year 3	Year 4	Year 5
Annual	1.6	1.9	1.5	1.0	1.1
Cumulative	1.6	3.5	5.0	6.0	7.1

Thresholds for Procurement Methods and Prior Review
(GEF and GoN Funding only)
(US$ thousands)

Category	Contract Value (Threshold)	Procurement Method	Contracts Subject to Prior Review
CIVIL WORKS (subprojects and other works)	>25 -1,500	NCB	First two contracts
	< 25	Lump-sum fixed price contracts	None
	< 10	Direct contracting	None
GOODS (not vehicles)	>25 -150	NCB	First two contracts
	<25	International Shopping National Shopping	None
VEHICLES	>50-150	LIB	All
CONSULTING SERVICES		Selection according to Consultants Guidelines:	
Firms	>100	QCBS	All (except technical evaluation)
	<100	Consultants' Qualifications	Review of TORs only *.
Individuals	>30	Selection according to Consultants Guidelines of January 1997	All
	<30		Review of TORs only . Other steps in selection process are exempted from prior review.*

* Exemption from prior review **does not apply** to consultants contracts below thresholds **in cases of**: single source selection, assignments of critical nature, and amendments to contracts raising original contract value above the thresholds.

Schedule C

Nicaragua
Atlantic Biological Corridor Project
Timetable for Key Project Processing Events

The World Bank core team included Paola Agostini (economics), Luis Constantino (team leader), Olga Corrales (social aspects and participation), Douglas J. Graham (biodiversity), Marta Molares-Halberg, (legal), James Smyle (natural resources), and Jorge Uquillas (indigenous peoples).

(a) **Time taken to prepare the project:** 11 months

(b) **Prepared by:** MARENA

(c) **First Bank Mission:** May 1996

(d) **Appraisal Mission departure:** April 13, 1997

(e) **Planned Date of Negotiations:** May 19, 1997

(f) **Planned Board Approval:** June 26, 1997

(g) **Planned Date of Effectiveness:** November 1997

PART II: TECHNICAL ANNEXES

ANNEX 1. PROJECT DESIGN SUMMARY

Narrative Summary	Key Performance Indicators	Monitoring and Supervision	Risks
CAS and GEF Objectives 1. CAS: to promote environmental and natural resources management	1. Increased demand from GoN for new environment and natural resources projects	1. Evolution of CAS dialogue between Bank and GoN	**CAS/GEF Objective to Bank Mission**
2. GEF: to conserve biodiversity of global importance, in this case the Nicaraguan portion of the Mesoamerican Biological Corridor (MBC)	2. Continuity and intactness of the Nicaraguan portion of the MBC not significantly in decline by end of project	2. To be developed under the regional UNDP-implemented MBC project	
Project Development Objectives 1. Increased probability of maintaining natural habitat constituting a biological corridor through the Atlantic by promoting sustainable land uses that integrate biological, social and economic priorities	1.1. Declining rates of habitat conversion in high priority areas of the project between years 1 and 5 of the project; no major unnatural declines in stability of populations of key indicator species	1.1. Results of remote sensing (baseline, mid-term, final) contracted by MARENA; species-level monitoring results	**Development Objectives to CAS Objective** 1.1. Poverty, social investment needs, continued in-migration, and population growth may preclude achievement of global biodiversity objectives
Project Outputs 1. Significant awareness of ABC and its underlying concepts, nationally and internationally	1.1. Concept, presence, and importance of ABC improving throughout the project and known by 60% of key decision makers at national and local levels, by 35% of the regional population and 20% of primary school teachers nationally, by year 5 1.2. US$ 12 million in direct, additional donor support to the ABC by year 5	1.1. Results of attitude surveys (baseline, mid-term, final) contracted by PIU 1.2. Regional government planning unit records and annual regional government/donor coordination meeting outputs	**Outputs to Development Objectives** None
2. Strengthened national and regional planning mechanisms for the Atlantic, incorporating biodiversity concerns	2.1. By year 5, major planning tools of both regional governments significantly reflect the concept of the ABC and there is a demonstrated capacity to generate corridor-specific funds 2.2. Key GoN ministries planning units (transportation, mines, agriculture, and forestry) incorporating biodiversity concerns and ABC	2.1. Review of regional planning documents 2.2. Survey by MARENA's General Directorate of Environment	2.1. The gap between good intentions and actual actions may be significant 2.2 Strong competing interests in ABC area may lead to policies that do not internalize ABC adequately; success of policy-dependent actions a function of investments under IDA credit

Narrative Summary	Key Performance Indicators	Monitoring and Supervision	Risks
	within their planning, development, and EIA procedures		
3. Strengthened local planning mechanisms for the Atlantic, incorporating biodiversity concerns	3. 10 municipal and community investment plans, which respect the ABC and community priorities, completed by year 3 and an additional 10 by year 5	3. Project annual reviews and supervision missions	3. Failure to achieve credible participatory process in local planning; failure to engender interest in ABC concept; failure to reconcile conflicting interests among key actors
4. Strengthened long-term capacity for monitoring the ABC	4. Production of monitoring reports in years 3 and 5 with quantitative data on forest cover and indicator species	4. Review of monitoring reports	4. Success of monitoring programs depends partially on regional MBC project
5. Reduced "pull" at the frontier through better protection of key PAs	5.1. The two project PAs with management plans under implementation by year 4 with MARENA, local governments, communities, and NGOs actively involved 5.2 Invasions into project-targeted PAs systematically recorded by park guards, declining through the life of the project, and brought to the attention of appropriate local authorities	5.1. Project annual reviews and biannual progress reports 5.2. MARENA protected area reports; verification through remote sensing data	5.1. Failure to translate local interests in resource protection and conservation into feasible, acceptable actions 5.2. Intensity of "push" factors causing invasion of parks may overwhelm what would be normally adequate protection measures
6. Reduced "pull" at the frontier through progress in resolving indigenous land tenure issues	6.1. Demarcation Commission (or its equivalent) meeting at least twice a year with broad representation of stakeholders by year 3 of project 6.2. At least half of the indigenous communities in high priority areas of the project with lands demarcated and undergoing process of legalization and titling by year 4	6.1 Minutes of Commission meetings and independent evaluation 6.2 Commission records and independent evaluation	6. Political will to regularize indigenous lands dissipates; failure to work effectively within indigenous cultural framework; political sensitivity of land issue precludes agreements on legalization; diminishment of political will to pursue conflict resolution and legalization
7. Reduced "push" at the frontier from better land use practices and technologies in the ABC and its buffer zone	7.1. 15% increase in number of households, in buffer zones targeted by project, applying biodiversity-friendly land use practices (and which are therefore contributing to their overall quality of life) compatible with ABC objectives	7.1. Subproject monitoring reports; results of attitude survey (baseline, mid-term, final) contracted by PIU contracted by MARENA and	7.1. Recommended technologies may not be locally acceptable 7.2. Factors causing "push" into the Corridor may be beyond the control of the project

Narrative Summary	Key Performance Indicators	Monitoring and Supervision	Risks
	(sustainable agriculture, natural forest management, etc.)	data collected by park guards	
Major Project Components			**Components to Outputs**
Public Communication and Education			
1. International Promotion Program	1. Ten articles on the ABC in international publications by year 5 and at least 2 by year 3	1. PIU records	1. International media chosen may not reach appropriate decision-makers
2. National Promotion Program	2. National TV media campaign designed and undertaken; 3 national ABC conferences	2. PIU records	2. Failure to engender interest of public or national media; lack of credibility with key decision-makers
3. Atlantic Region Promotion Program	3. Four NGO or regional organization-based promotion and dissemination campaigns (2 each in RAAN and RAAS), in at least 3 languages (Miskito, Mayagna, English, or Spanish, where appropriate)	3. PIU records; regional government records	3. Failure to engender interest of public or national media; lack of credibility with key decision-makers
Planning and Monitoring			
4. Corridor Planning	4. Original ABC map and two updates of ABC maps published and distributed by year 5 – updates based on credible local participation/consultation processes	4. MARENA's records; project annual reviews and biannual progress reports	4. Planning remains a theoretical and complex exercise, and does not address corridor protection needs
5. International Donors Coordination	5. Two donor meetings annually (1 each in RAAN and RAAS) with 80% attendance of relevant donors	5. Annual regional government sponsored donor coordination meeting outputs	5. Lack of forceful implementation of coordination strategies by GoN
6. Corridor Monitoring	6. Improved data on biological values, species presence and richness in 5 key biodiversity areas of the ABC by year 4; 3 remote sensing-based change detection exercises (baseline, mid-term, final) of ABC	6. Monitoring reports	6. Success of monitoring programs depends partially on regional MBC project and other donor-financed initiatives
Priority Biodiversity Areas			
7. Protected Area Investments	7. Two PA management plans issued by year 3; 50 km of protected area boundaries agreed with	7. MARENA's Protected Areas Division records	7. Lack of alternatives for natural resource users; insufficient enforcing

Narrative Summary	Key Performance Indicators	Monitoring and Supervision	Risks
	communities and demarcated by year 4; 25 training workshops in protected areas management by year 5 (beginning in year 3)		presence in protected areas; conflicts between key stakeholders
8. Sustainable Use Subprojects	8. Fifty municipal and community-level demand-driven sustainable use/biodiversity protection projects and 10 sustainable use/biodiversity demonstration projects by year 5	8. Project annual reviews and biannual progress reports (modeled after INIFOM procedures under the Municipal Development Project)	8. Despite beneficiary cofinancing, investments may not be sustainable
Indigenous Communities 9. Training and institutional strengthening	9. Twenty training seminars in four different communities by year 4	9. Project annual reviews and biannual progress reports; Demarcation Commission records	9. Training needs may overwhelm available resources
10. Demarcation	10. Forty training events by year 3; 5 demarcation proposals received from communities by year 3; 5 workshops on land tenure for indigenous communities by year 3	10. Project annual reviews and biannual progress reports; Demarcation Commission records	10. Titling may not materialize if law is not enacted 11. Indigenous control of land tenure does not necessarily guarantee that their natural resources will be protected (although, in the short run, this is more likely than under alternative scenarios)

ANNEX 2. PUBLIC COMMUNICATION AND EDUCATION COMPONENT

BACKGROUND

1. A number of important lessons have been learned from past and current investments in biodiversity conservation investments both globally as well as in the Atlantic Region of Nicaragua. Among these are: (a) that achievement of biodiversity conservation objectives often implies promoting changes in the behaviors of individuals and societies; (b) that a project's ability to create change is conditioned on local populations and institutions (e.g., local government, community and sectoral organizations, and NGOs) agreeing with the ends and means of the project; and (c) the need to view biodiversity conservation investments within a broader concept of development and land use. These and other considerations necessarily lead to the Atlantic Biodiversity Corridor (ABC) being a product of a long-term process which focuses on achieving agreements between sectors and relevant actors at the international, national, regional, and local levels. For such a process to be work, it is vital that the key stakeholders understand the ABC initiative and that there be widespread support for it. The demand must be both internal (among the stakeholders) and external (among the general public). External demand is considered essential, both to maintain focus and to create social and political incentives necessary to ensure stakeholder participation

2. The global objectives of the "Public Communication and Education" component are to: (a) raise the level of public debate on the operational concept of the ABC and its related issues of "biodiversity in the context of sustainable development"; (b) create broad public support and strengthen national advocacy for the ABC as a means of enhancing social and political incentives to the participation of key stakeholders within the ABC initiative; (c) educate key stakeholders as to the goals of the ABC; and (d) promote the integration of biodiversity concerns and the ABC within other GoN and donor-supported programs.

COMPONENT DESCRIPTION (TOTAL: US$1.1 MILLION; GEF: US$0.82 MILLION; GON: US$0.1 MILLION; DONORS: US$0.2 MILLION)

3. The component has a series of more specific objectives, which are:

(a) to ensure a high visibility for the ABC through packaging and promoting it a fashion readily grasped by the public, scientific community, and policymakers at the international, national, regional, and local levels;

(b) to target key ABC stakeholders with a short term program to transfer knowledge and understanding of the basic concepts of biodiversity values and justifications for its conservation such as biological productivity, regional economy, social and cultural issues; and the tools available to do so such as the ABC, protected areas, sustainable use of natural resources, planning processes, indigenous lands, critical watersheds, partnerships and strategic alliances;

(c) to ensure the adequate, informed participation and integration of relevant actors in the planning, organization and execution of the project while creating a broad awareness nationally and in the Atlantic Region of the ABC initiative (objectives, modalities of implementation, importance of participation, outputs);

(d) to ensure that the Nicaraguan ABC gains the international recognition required to sustain interest in it among both national and international actors as a land use policy and biodiversity conservation tool.

Strategy Development and Project Coordination and Management (Costs included in International Level Program Subcomponent below)

4. Initial activities will consist of refining the component design and implementation strategies. This will involve the services of private sector consultants (in social marketing, mass media, and rural development communications systems) and consultations with national and local groups who would be expected to implement the program. In addition, strategies and instruments will be developed to capture information generated within the project and by MARENA to feed into the communications program. Under the project, each contract for services pertaining to Corridor Planning, Monitoring, Conservation of Priority Areas and Sustainable Use Subprojects, and Indigenous Lands will require the service provider to produce write-ups (in appropriate styles) for use in selected publications and other dissemination instruments.

5. The management of a program of this type would be far beyond the competencies of a government institution or the PIU. An intermediary agency with a track record in conservation and communications/education/public relations will be recruited to assist in the management of the component. MARENA's Public Relations Office will be made the counterpart of the intermediary agency in order to enhance their capacity to perform their normal functions.

International ABC Promotion Program (Total: US$0.5 million; GEF: US$0.25 million; GoN: US$0.03 million; Donors: US$0.2 million)

6. The Nicaragua Atlantic Biological Corridor Project is widely regarded as an innovative attempt to introduce the concepts of biological corridors into planning at a regional scale and it is to be expected that the global community will have much to learn

from the successes and failures of this initiative. A high international visibility is also expected to stimulate interest in the ABC, enhance national pride, complement any future ecotourism development, generate increased interest (and financing) from foreign donors, and contribute significantly toward long term sustainability objectives. This subcomponent will cover the costs of disseminating information about the initiative at the international level. Component activities will be closely coordinated with the Regional Mesoamerican Biological Corridor initiative, which will also engage in international promotion of the MBC. Activities include: (a) participation of key stakeholders in the ABC Project (from MARENA, RAAN, RAAS, and from beneficiary organizations) in conferences or workshops at the Central American and international level; (b) preparation of explanatory or promotional project material directed at international audiences; (c) preparation and publication costs for an article on the ABC to be produced for a scholarly journal; (d) preparation of videos; (e) establishment and maintenance of a Web page; (f) assistance to international journalists and photographers to facilitate the production of articles in key publications (e.g., flight magazines, tourism publications, National Geographic and Reader's Digest-type magazines, etc.), and (g) an international promotion program geared at recruiting the services of internationally renowned individuals as supporters and spokespersons for the ABC.

National ABC Promotion Program (Total: US$0.4 million; GEF: US$0.38 million; GoN: US$0.04 million)

7. This subcomponent focuses on: (i) educating decision-makers and stakeholders at the national and Atlantic Region-levels (legislators, policy makers of relevant institutions, NGOs, private sector interests, etc.) as to the concepts, importance and opportunities offered by the ABC; (ii) in enhancing advocacy for biodiversity conservation within sustainable development among NGOs, universities, journalists, and (iii) communicating to national audiences the importance and need for conserving biodiversity in general and the ABC specifically. Activities would include:

(a) preparation and distribution of two ABC summary documents (in year 1 and in year 4) for popular audiences and decision-makers (legislators, donors, ministers, etc.) and an "ABC Database" for use by universities and planners;

(b) implementation of a mass communication program (radio, television, schools, popular publications, art, etc.) to national audiences on biodiversity and the ABC;

(c) implementation of an education program (production and distribution of information; seminars and workshops, conferences, etc.) for key national and Atlantic Region stakeholders on the economic and environmental importance of biodiversity, the ABC, and the opportunities which it offers (ecotourism; sustainable resource management for forestry, fisheries, perennial agricultural crops, etc.; capture of international credits such as in carbon markets, debt-for-nature swaps, etc.);

(d) fostering and strengthening of a "National Biological Society" to provide a continuous focus on and advocacy for biodiversity, particularly important if government priorities shift to other areas. The Society will independently foster cooperation within and outside of Nicaragua, while acting as a vital link and focus for external interests (e.g., international scientific and conservation communities, private sector biodiversity interests). The Society will be independent of government, self-financed (through donations and its own fundraising efforts), democratic, and politically non-aligned. Project financing will be provided only on a matching grant basis (maximum 50%, up to $50,000) to defray startup costs during the first two years; and

(e) attitudinal surveys in years one, three, and five to assist in evaluating the impacts of the component and to allow refinement and improved targeting of the communication and education activities. These surveys are also a critical instrument of the project monitoring and evaluation strategy (see Annex 9).

Local Level ABC Promotion Program (Total: US$0.2 million; GEF: US$0.19 million; GoN: US$0.02 million)

8. This subcomponent will focus on the local audiences in the Atlantic region (indigenous and non-indigenous communities) and key stakeholders or their representatives (members of the regional and municipal councils, private sector interests, religious leaders, NGOs, professors and teachers, representatives of indigenous and non-indigenous communities, etc.). Specific activities will be similar to the National Program with the main difference being the need to tailor the program to allow for an inadequate communication infrastructure, multiple cultures and languages (Spanish, English, Sumo, Rama, Miskito, and Creole), high levels of illiteracy (requiring greater reliance on visual and cultural approaches -- dance, storytelling, skits, etc.), and less centralized program implementation. Development of promotional instruments would be done in close coordination with the planning and monitoring activities of the second component.

9. Eligible expenditures for the national and local Programs would consist of technical assistance for program design and execution; services for design and production of the means of communication (pamphlets, signs, videos, T-shirts and caps, special publications, mass communication, etc.); production, publishing and distribution costs (incl. broadcasting costs); costs associated with seminars and workshops; prize money for competitions among schools, universities, communities, NGOs to design and produce original ABC promotional material; costs for translations into indigenous languages; and national travel expenses for journalists, writers, photographers, etc. to visit the ABC (including special overflights for production of materials).

ANNEX 3. CORRIDOR PLANNING AND MONITORING COMPONENT

BACKGROUND

1. Nicaraguan efforts to promote sustainable use of biological resources in the Atlantic slope of Nicaragua are a part of a broader initiative, the Mesoamerican Biological Corridor (MBC). The MBC, shared among southern Mexico, Panama, and the six central American countries proposes to conserve the mosaic of distinct and diverse forested landscapes, wetlands and marine ecosystems which link the continental masses of North and South America. The CCAD (fully endorsed by its member governments), with UNDP assistance, is requesting GEF financing for a regional project in support of the MBC. As a part of the CCAD/UNDP preparation activities, a regional study was completed in late 1996. Concurrent to and in coordination with this study, the GoN developed (with GEF and World Bank assistance) a proposal to protect the *de facto* biological corridor passing through the relatively intact ecosystems of the Atlantic watershed. The resulting "Atlantic Biological Corridor" (ABC) comprises a first approximation of an environment and land use plan for the Atlantic slope which would comprise the Nicaraguan contribution to the Mesoamerican Biological Corridor.

2. The environment and land use plan for the Atlantic Biological Corridor is a preliminary strategic definition of feasible land uses. It relies on the legal, conceptual, or physical existence of such features as protected areas, buffer zones, indigenous territories, forest lands, critical municipal watersheds, wetlands, and economic development activities which are potentially compatible with biodiversity conservation. The plan provides an approximate delineation of the biological corridor and identifies issues relevant to its conservation. It includes a review of the current protected area system's adequacy in terms of meeting biodiversity conservation objectives. The corridor itself is conceptualized within the plan as a subset of interconnected land uses, compatible with biodiversity conservation objectives, and which could be supported or promoted to "form" the ABC. As a tool, the ABC is intended to be an integrated framework to promote and organize local, national, and donor efforts within the broad context of sustainable development and biodiversity conservation within the Atlantic region.

3. The present approximation of the ABC and its environment and land use plan is not intended to be an instrument accepted by or acceptable to national or Atlantic region stakeholders. Rather, it is the point of departure for a lengthier process to: (a) establish the corridor within the broader context of sustainable development and land use; (b) achieve intersectoral agreements between relevant actors at the national, regional, and local levels; and (c) involve local populations and institutions in the design, implementation, and

benefits of the corridor. The ABC would, therefore, be a dynamic instrument whose definition requires an iterative process to arrive at a series of agreed land use options and investment priorities. The Corridor Planning and Monitoring Component proposes to provide the means by which this process is established.

4. The global objectives of the Corridor Planning and Monitoring Component are to: (a) initiate a process of participatory planning that, in the short term, would finalize the definition of the ABC and, which in the medium term, would provide an instrument for prioritization and coordination of sustainable development and biodiversity conservation activities within and around the ABC; (b) develop a series of consistent local, regional, and national-level agreements directed at establishing and conserving the ABC; and (c) develop the capacity to monitor the ABC and trends in natural resources/biodiversity in support of corridor protection and planning, and subsequent prioritization and targeting of ABC-related activities.

COMPONENT DESCRIPTION (TOTAL: US$5.0 MILLION; GEF: US$1.38 MILLION; GON: US$0.09 MILLION; DONORS: US$3.5 MILLION)

5. In order to achieve these objectives, the component has a series of more specific objectives. These are to:

(a) increase capacity of key actors to provide leadership and/or participate in the processes of participatory planning and ABC monitoring;

(b) implement a program of participatory ABC planning which involves key stakeholders in the regions of RAAN and RAAS;

(c) establish and agree upon the specific roles and responsibilities of relevant public sector institutions in support of conservation of the ABC; and

(d) organize, strengthen and extend current capacity for natural resources monitoring to incorporate monitoring of land use trends and biodiversity (and by extension, the ABC) within the Atlantic Region.

6. The IDA-financed Rural Municipalities Project will directly cofinance some key elements of the Planning Subcomponent (see below) and otherwise support enabling and complementary activities for the implementation of the GEF-financed activities. Financing under the IDA credit includes technical assistance, studies, equipment, vehicles, workshops, publications, operational and recurrent expenses, incremental salaries; and foreign and national travel to: (a) provide support to the establishment of the National Environmental Council (CONAMA) as the intersectoral coordinating body for the ABC at the national-level; (b) support the development of a national-level financing mechanism (National Environmental Fund) with specific links to CONAMA and the ABC participatory planning processes; (c) support the development of MARENA's institutional capacity at the national-level to participate in planning and monitoring activities and to incorporate the ABC and biodiversity within the institution's norms and work programs;

(d) strengthen MARENA's Regional Delegates for them to assume, *inter alia*, their roles in planning and monitoring of the ABC; and (e) strengthen and provide operational support to the regional governments and their planning offices.

7. Expenditures eligible for GEF financing would include equipment, consultants, studies, workshops, training, development and dissemination of biodiversity and ABC-related materials, travel expenses and incremental salaries and other recurrent costs. The GEF-financed ABC Project includes three subcomponents.

Atlantic Biological Corridor Planning (Total: US$3.6 million; GEF: US$0.53 million; GoN: US$0.03 million; Donors: US$3.0 million)

8. This subcomponent focuses on activities to be carried out to redefine the ABC as a series of agreements and priorities for sustainable natural resource management and biodiversity conservation. The subcomponent seeks to establish the ABC based on a process of discussion, negotiation and planning which involves the following activities:

(a) Sectoral Corridor Studies. A small budget is reserved under the GEF Project for studies that would collect information to provide baseline information for an initial redefinition of the ABC. Note that the bulk of baseline studies to define a draft ABC were carried out during project preparation. In addition, the IDA credit will finance a number of highly complementary activities: (i) sectoral studies which aim to integrate corridor planning concepts into sectoral planning and EIA instruments (specifically in the areas of transportation, mining, agriculture, fisheries, and forestry); (ii) ecosystem and vegetative cover maps; and (iii) development of an ecotourism strategy for Nicaragua, in support of creating incentives for conservation of high value areas in the ABC. Finally, note that additional support for Corridor planning will result from cofinancing under the project (see Annex 11 for further details).

(b) Refinement of ABC Regional Proposal. This activity would consist of investments associated with: (i) aggregation and validation of the local ABC plans; (ii) regional level ABC workshops and consultations with technical experts and private sector representatives; iii) ABC conflict resolution workshops involving concerned interests and parties; and (iv) GIS work required to physically revise and issue corridor maps.

(c) Incorporation of community priorities consisting of: (i) the design and dissemination of a methodology for rapid participatory planning and mapping of the ABC at the municipal-level (non-indigenous groups) and territorial level (indigenous groups); (ii) training for NGOs and community leaders in the application of the rapid participatory planning methodology; and (iii) implementation of the methodology in nine priority municipalities in the Northern and Southern Atlantic Autonomous Regions (year 1) and in key areas of the ABC not covered by other donor programs in subsequent

years. The IDA-financed credit will finance the organization and functioning of local committees (Cayos Miskitos and Wawashan/Cerro Silva) as, *inter alia*, the local coordinators and counterparts of the regional planning offices and as the local forums for setting of priorities and resolution of conflicts relevant to the conservation and protection of the local segments of ABC. The Priority Biodiversity Areas Component (see Annex 4) will also finance 50 community-level development plans within areas identified as critical to the ABC, the results of which will be incorporated into the ABC.

9. The local participatory planning and mapping process for the ABC would be undertaken in two stages during the implementation of the project. The first stage would be a pilot exercise to test and refine a Rapid ABC Participatory Planning. It would be carried out during year one, within the nine priority municipalities in RAAN and RAAS. Subsequently, the methodology will be disseminated to other projects and groups (i.e., NGOs) operating within the Atlantic region for integration into their normal rural development and natural resource management planning processes. In stage two, the governments of RAAS and RAAN (through their planning offices) will promote the application of the methodology in the region among new and existing programs; including the IDA-financed Rural Municipalities project. These programs would be expected to generate local definitions of the ABC within their zones of influence. In high priority areas of the ABC, where other donors or programs cannot be influenced to include the ABC, GEF financing would be utilized to fill the gaps.

10. For each of the two stages, the Local Committees (see Annex 7) would aggregate the local plans and review them for inconsistencies or conflicts. Where conflicts are identified, these would be flagged as requiring special attention. If warranted, the Local Committees could take a more proactive role in conflict resolution by directing the use of the Priority Biodiversity Areas component's financing for workshops for conflict resolution. The Local Committees will also encourage the participation of other GoN and donor projects in participatory ABC planning and mapping and in providing the outputs from that planning to the Local Committees for incorporation into the ABC plan.

11. The Regional Planning Offices will perform essentially the same task as the Local Committees but on the regional level, i.e., aggregating plans, conflict resolution, encouraging and coordinating donor participation, etc. In addition to this, the Regional Planning Offices would be responsible for presenting the regional plans in a series of workshops aimed at verifying the plans and identifying weaknesses and priorities (both geographic and thematic) for the next round of local planning. The Regional Councils would review and ratify the plans, which will subsequently be maintained and updated on PC GIS systems at the Regional Planning Offices.

International Donors Coordination (Total: US$0.1 million; GEF: US$0.07 million; GoN: US$0.2 million)

12. The project will finance annual regional donor coordination meetings to allow regional governments to bring regional groups active in environment, biodiversity, natural resources, and rural development together with representatives of bilateral and multilateral donors to present and discuss current activities and future plans.

Atlantic Biological Corridor Monitoring (Total: US$1.3 million; GEF: US$0.78 million; GoN: US$0.04 million; Donors: US$0.5 million)

13. This subcomponent seeks to establish the means whereby ABC planning and priority setting processes, interested groups (universities, NGOs, GoN agencies, etc.) and the general public can be informed by more reliable and timely information on the status of the ABC and of biodiversity within the Atlantic region. Additionally, the information would: (a) serve for relevant agents of national, regional, and local institutions to take actions (including regulatory actions) and allocate limited resources in response to trends and threats to biodiversity and the corridor; and (b) to monitor the effectiveness of agreements regarding land uses and economic developments within and near the ABC.

14. The subcomponent would:

(a) finalize the design for the overall monitoring system;

(b) contribute to the establishment of a system in the Atlantic Region where social, economic, and environmental information could be stored, accessed and disseminated (including replicate of pertinent MARENA databases);

(c) training for participants in the monitoring network (government, universities, NGOs, etc.); and

(d) finance the collection, analysis and presentation of data on key indicators (notably changes in vegetative cover and population dynamics of key indicator species).

15. The regional GEF Mesoamerican Biological Corridor Project, now being prepared by CCAD and UNDP, will also include significant funding for monitoring from a regional perspective. Based on preliminary discussions between the two preparation teams, it is expected that the regional project will include funding for remote image acquisition and analysis and training, incremental to any expenses incurred under the national GEF projects. Monitoring efforts and reports will be closely coordinated between the two projects.

ANNEX 4. PRIORITY BIODIVERSITY AREAS COMPONENT

BACKGROUND

1. The concept of the Atlantic Biodiversity Corridor (ABC) is based on a matrix of land uses which, in their aggregate, provide for the sustainable use and conservation of natural resources and biodiversity on a landscape scale. Among the fundamental objectives of project preparation were: (a) to provide a region-wide first approximation of what such a matrix of land uses might be; and (b) to locate an "Atlantic Biodiversity Corridor" within that matrix. For the Atlantic zone, potential land uses covered a continuum of activities ranging from strict protection of core protected areas (PAs) to selected economic development activities based on the principle of sustainability. The ABC itself was conceptualized as that subset of interconnected land uses which are most closely compatible with biodiversity conservation objectives, and which thus could be supported or promoted to "form" the ABC. From the analyses leading to this first approximation[1], a series of thematic and geographic priorities was developed. From these priorities, eligibility criteria for GEF financing were developed and specific locations for use of GEF funds were identified.

2. During preparation, the highest priority biodiversity areas of the ABC were identified through the development of a Draft Corridor Proposal. In order to help ensure the long-term conservation of these areas, a two-pronged approach was developed within this component. First, the Conservation of Priority Biodiversity Areas Subcomponent will implement a series of supply-driven investments in conservation of protected areas. Second, the Sustainable Use of Biodiversity in Priority Areas Subcomponent will finance biodiversity-friendly activities which further the goals of conservation and sustainable development of the ABC. Investments under this subcomponent are to be: i) both demand and supply-driven; ii) oriented toward meeting locally defined opportunities and priorities; and iii) be subject to project eligibility criteria. A detailed description of each sub-component is provided below.

[1] See the project document *Aspectos Metodológicos Para la Identificación del ABC* (MARENA, 1997). The analysis included: (a) a 1:250,000 scale analysis of biodiversity (based on landscapes, existing vegetative formations, habitat, wildlife, and conservation status); (b) land use potential (for forestry, agriculture, livestock, mines, transport, watershed functions, fisheries, and biodiversity conservation); (c) socioeconomic and demographic data; (d) consultations with local, regional, and national stakeholders; (e) an analysis of threats to biodiversity; and (f) an analysis of projects and financing in the Atlantic Region which currently or potentially contribute to the conservation of the ABC.

3. In order to assist the development of local prioritization of subprojects (Conservation of Priority Biodiversity Areas and Sustainable Use of Biodiversity), a series of planning steps will be completed (See Annex 3, Planning and Monitoring for more details). Not all of these are related directly to the ABC, but all include the concept of the ABC and will generate information on local opportunities and priorities in support of the ABC. First, Rapid ABC Participatory Planning exercises will be carried out in the nine eligible municipalities to refine, with communities, the local definition of the ABC–these will be completed prior to approval of any subprojects. The outputs will also be incorporated into subproject eligibility criteria, both in geographic and thematic terms. Second, in the project's protected areas, management plans and annual work programs will be developed cooperatively between MARENA, regional governments, and local communities. Eligible investments will be those which respond to priorities defined in the plans. Third, the Rural Municipalities Project will subsequently develop (in years two and three) formal Municipal Environment and Land Use Plans (ELUPs) which will, *inter alia*, verify the local definition of the ABC and refine priorities on a municipal scale. Finally, the project will make available resources to develop 50 community-level development plans within areas identified as critical to the ABC. This latter process allows intensive work with specific communities to develop poverty and rural development (for IDA-financing) and biodiversity-related proposals (for GEF-financing) within a coherent community development framework which includes the ABC.

4. The eligible high priority areas are listed in Table 4-1. These areas were determined during project preparation as being of greatest biodiversity importance within the ABC and as being the most threatened in the long term (this being in part a function of the presence or absence of other donors with major long-term commitments). They are included in nine municipalities in the Northern and Southern Atlantic Autonomous Regions (RAAN and RAAS, respectively). A total of about 146 primarily indigenous communities are located in the rural zones of the eligible municipalities. The total rural zone opulation is 139,000, consisting of 25,000 to 35,000 households.

COMPONENT DESCRIPTION (TOTAL: US$8.4 MILLION; GEF: US$3.51 MILLION; GON: US$0.85 MILLION; DONORS: US$4.0 MILLION)

Conservation of Priority Biodiversity Areas (Total: US$6.8 million; GEF: US$2.39 million; GoN: US$0.38 million; Donors: US$4.0 million)

5. The long-term sustainability of the ABC will depend to a great degree on the conservation of large areas of intact natural habitat connected by thinner strips of relatively well conserved habitat. The large "nuclei" are particularly important from a conservation perspective because their size provides an area of natural habitat large enough to guarantee the viability of most populations of animals and plants. Even if the corridors are not sufficiently wide enough to provide sufficient space for some species, important populations can maintain themselves in the nuclei and constantly repopulate the corridors and ensure a genetic flow between otherwise isolated populations. This is particularly important for "umbrella" species like jaguars or Harpy Eagles, i.e. species

Table 4-1. High Priority Areas for the ABC Project

PRIORITY AREAS	REGION	MUNICIPALITIES	EST. RURAL POP. [a]	NOTES
Inside Atlantic Protected Areas System				
Forestry Reserve Cerro Silva	RAAS	Bluefields, Kukra Hill	1,325 (I) 15,501 (N) 16,826 (T)	Humid tropical forest, oves, cloud forest
Forestry Reserve Wawashan	RAAS	Kukra Hill, Cruz de Rio Grande, Boca Del Rio Grande, Tortugero, Laguna de Perlas	29,919 (I) 25,193 (N) 55,112 (T)	Humid tropical forest, estuaries, mangroves, pine associations
Biological Reserve Cayos Miskitos	RAAN	Pto. Cabezas (Bilwi)	25,346 (I) 925 (N) 26,271 (T)	Coral reefs, extensive seagrass beds, green turtles, manatees
		Subtotal	56,590 (I) 41,619 (N) 98,209 (T)	
Outside Atlantic Protected Areas System				
Makantaka (mid-catchment Rio Grande de Matagalpa)	RAAN	Prinzapolka	7,344 (I) 4,744 (N) 12,088 (T)	*Pinus caribea* genetic reserve, bamboo, humid tropical forest, Miskito pine savanna
Mid- and lower catchment of Ríos Prinzapolka and Layasika	RAAN	Prinzapolka	Included in the above figures	*P. caribea*, humid tropical forest, seasonal and coastal wetlands, estuaries, mangroves, freshwater lagoons, gallery forest
Mid-catchment of Rio Leiku	RAAN	Waspan	28,861 (I) 0 (N) 28,861 (T)	Dense, mature stands of *P. caribea*, gallery forest, seasonal wetlands
Bismuna, coastal zone between Cabo Viejo & Rio	RAAN	Waspan, Pto. [illegible]	54,207 (I) 925 (N) 55,132 (T)	Wetlands, mangroves, *Raphia* palm swamps
		Subtotal	61,551 (I) 5,669 (N) 67,220 (T)	
TOTAL			**92,795 (I)** **46,363 (N)** **139,158 (T)**	

Sources: Population figures - Ortega, Marvin. 1997, *Indigenous Peoples Development Plan* (in project file).

a. (I) - Indigenous population; (N) = Non-indigenous population; (T) = Total rural population.

whose presence implies excellent habitat quality or viable populations of many other species.

6. In Atlantic Nicaragua the only realistic option for maintaining in perpetuity large "bulges" in the Corridor is to formally conserve such areas in the country's protected area system. The most important nuclei of the corridor already exist as protected areas: Bosawas and the Biological Reserve of Indio-Maiz (see Map 3). The areas of Cerro Silva and Wawashan have semi-protected status as forest reserves. A few other key areas in northern Atlantic Nicaragua of outstanding biological characteristics are presently unprotected, but giving them a protection status requires careful analysis and consensus building, since these areas are inhabited by indigenous communities with historical land claims to them. The approach chosen in this project to conserve biodiversity in these areas is through negotiation, consensus building and incentives through subprojects to develop a consensus with communities on the best land use patterns for these areas consistent with conservation of their biological resources; nevertheless technical assistance and investments are included in this project to advance with proposals to give a formal protection status to these areas if communities choose so.

7. The following activities are planned under this sub-component:

(a) Support for management capacity both in the regions and in the protected areas unit of MARENA. Eligible investments include consultants, technical assistance, operational expenditures, and training.

(b) Formulation of management plans for the protected areas of Cerro Silva, Wawashan and Cayos Miskitos . Investments would cover costs of consultants, specialized studies where necessary, and costs of consultation workshops.

(c) Infrastructure and equipment acquisition for key protected areas, including administration buildings, possibly access roads (if environmental protection measures are adequate), trails, lookout towers, firebreaks, radio equipment, and transportation equipment.

(d) Training in planning, management, and administration of protected areas. Training courses and preparation of training material would be directed at MARENA, local governments and other organizations as appropriate such as universities, NGOs, and local communities.

(e) Demarcation of protected areas. Investments would include as necessary diagnosis of the tenure situation, community meetings and workshops, and on-the-ground demarcation costs.

Sustainable Use of Biodiversity in Priority Areas (Total: US$1.6 million; GEF: US$1.12 million; GoN: US$0.47 million)

8. The objectives of this subcomponent are to:

(a) enhance the conservation and protection of biodiversity outside of the legally protected areas by influencing the trends and types of land uses toward conservation and sustainable use of biodiversity; and

(b) finance eligible, investment subprojects which contribute directly to the sustainable management and conservation of biodiversity of global importance within the ABC.

9. Three kinds of sub-projects would be eligible for financing (detailed procedures will be specified in the Operational Manual):

(a) Priority Area Community Development Planning subprojects to develop community-level investment and resource management instruments consistent with the ABC. The Local Committees (see Annex 7) will select the specific communities to receive planning subprojects. Selection will be based on both community demand and the priorities which develop from the Rapid ABC Participatory Planning exercises. The plans will be submitted to the Local Committees and, where accepted by the Committee as consistent with the ABC, will make the communities eligible to receive subproject financing of up to US$10,000 per community. This financing will be available as a *quid pro quo* in exchange for the community's formal agreement to manage its lands in a manner consistent with the plans. Financing for the *quid pro quo* projects will be made available through (b) below.

(b) Sustainable Use subprojects include two categories of demand-driven subprojects: 1) subprojects directly related to protection and management of biodiversity resources and involving one or more communities or municipalities, examples of such subprojects might include: community protected areas (e.g., watershed and riparian zone protection); fire control; environmental education; low impact forest or mangrove management and conservation; on-farm resource management in environmentally-sensitive areas prioritized in the ABC plans; feasibility studies for alternative utilization of biodiversity resources; wildlife management and training for biological resources management; and 2) *quid pro quo* subprojects in which financing will depend on community adherence to agreed-upon corridor-consistent development plans. A maximum of US$ 0.5 million (or 33% of available financing) is reserved for *quid pro quo* subprojects. In the case of subprojects for protection and management, the Local Committees (see Annex 7) will select the subprojects to be financed, within their annual budget ceiling. In the case of *quid pro quo* subprojects, those will be

selected by the eligible community with the Local Committees ensuring their compliance with the agreed Plan.

(c) Community or private sector outreach or demonstration subprojects include two categories of supply-driven subprojects: 1) subprojects offered to communities or private sector in critical areas of the ABC where immediate pressures on local resources justify seeking out and working with communities to implement conservation and sustainable use-related activities -- these subprojects will be a) demonstrations of projects suitable for the Sustainable Use subprojects described above for protection and management or b) demonstration of profitable biodiversity friendly activities, such as ecotourism, to be later adopted by the private sector; and 2) pilot subprojects to introduce, adapt, and verify innovative approaches with potential to enhance local incentives to biodiversity conservation targeted both at communities and private entrepreneurs. The Local Committees (see Annex 7), in cooperation with the Regional Planning Office, will identify the specific communities eligible to receive Community or Private Sector Outreach subprojects. Private sector demonstration subprojects would be proposed to the local committees by private organizations themselves.

10. Preliminary eligibility criteria for subprojects include the following:

(a) Must be located within areas identified in the ABC plan as a part of the corridor;

(b) Must be of local interest and be developed with and acceptable to the participants -- as measured by cash or kind counterpart from participants (equivalent to 25% of investment value); for private sector demonstration projects matching grants of up to 50% of project costs and for a maximum grant of US$20,000 would be eligible.

(c) Participants must be organized in a group if a community project;

(d) Subprojects must not be eligible for financing from other sources;

(e) Subprojects must directly or indirectly contribute to biodiversity conservation by creating sufficient incentives for local groups, communities or private sector to complete specific actions that clearly enhance biodiversity conservation;

(f) Subproject benefits must be equitably distributed within local society and between local groups (poor, indigenous, women);

(g) Priority subprojects are those which assist to mitigate any negative impacts of enhanced biodiversity protection on those groups most affected; and

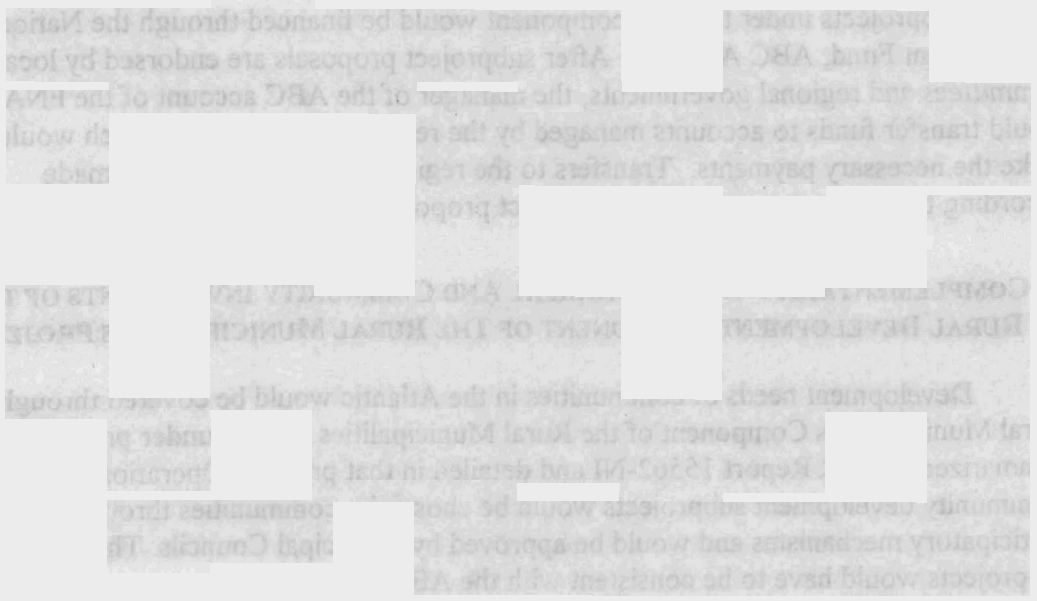
(h) Subproject activities must be socially, institutionally, and technically viable and environmentally sustainable.

11. Subprojects under this sub-component would be financed through the National Environment Fund, ABC Account. After subproject proposals are endorsed by local committees and regional governments, the manager of the ABC account of the FNA would transfer funds to accounts managed by the regional governments which would make the necessary payments. Transfers to the regional accounts would be made according to needs reported in the subproject proposal.

COMPLEMENTARITY WITH MUNICIPAL AND COMMUNITY INVESTMENTS OF THE RURAL DEVELOPMENT COMPONENT OF THE RURAL MUNICIPALITIES PROJECT

12. Development needs of communities in the Atlantic would be covered through the Rural Municipalities Component of the Rural Municipalities Project under procedures summarized in SAR Report 15562-NI and detailed in that project's Operational Manual. Community development subprojects would be chosen by communities through participatory mechanisms and would be approved by Municipal Councils. These subprojects would have to be consistent with the ABC.

13. The Sustainable Use of Biodiversity Subprojects, to be funded by GEF, would, in contrast to the development subprojects, have a clear positive impact on biodiversity, either by promoting a change in land use patterns as recommended in Community Plans, or by supporting specific biodiversity related activities.



ANNEX 5. INDIGENOUS COMMUNITIES COMPONENT AND INDIGENOUS PEOPLES DEVELOPMENT PLAN (IPDP)

BACKGROUND

1. The Atlantic Region of Nicaragua stands out not only for its physical and biological characteristics but also socioeconomically. Even after the incorporation of the region to the Nicaraguan nation in 1894, the presence of the state has been minimal. Although non-indigenous peoples now constitute more than half the total, the region has traditionally been inhabited by indigenous peoples who for centuries have had an uneasy relationship with the rest of the country. Ancestral indigenous territories are now subject to colonization and the expansion of the agricultural frontier.

2. In the context of a biodiversity conservation project, it was considered extremely important to invest in the development of indigenous communities because strengthened and stable indigenous communities are believed to be positive forces for biodiversity conservation in the long term. At least in Nicaragua, the combination of indigenous peoples relatively low population densities and land use patterns within their traditional areas currently leads to a lower likelihood of natural resources degradation. More importantly, when indigenous communities have fairly secure tenure of their land, they can represent formidable barriers to the expansion of the agricultural frontier.

3. In order to prepare a component specifically directed at the needs of indigenous peoples and to ensure overall compatibility of the project with their development priorities, field work and secondary data analysis was carried out by social and legal experts over the period of a year. More than 300 indigenous leaders from the five ethnic groups were consulted during the preparation of this plan. Their participation was ensured by hiring local leaders and NGOs to conduct the workshops. Consultative workshops took place in 11 municipalities, with indigenous representatives from 93 communities.

4. This resulted in several voluminous reports and an IPDP. These reports, the most comprehensive and complete that have been produced on the situation of indigenous peoples in Nicaragua are available in project files[1]. Field work relied on the use of a participatory rural appraisal methodology, which included the use of tools such as

[1] Roldan, Roque: *Viabilidad y Condiciones Legales de Cumplimiento de un Componente de Legalización de Tierra a las Comunidades Indígenas de la Costa Atlantica dentro del Proyecto de Manejo de Recursos Naturales*; Roldan, Roque: *Land, Natural Resources and Indigenous Rights on the Atlantic Coast of Nicaragua*; Ortega, Marvin: *Plan de Desarrollo de Comunidades Indígenas en el Atlántico*.

interviews with qualified informants, focus groups, and diagnostic and planning workshops.

5. The following sections in this annex present a brief summary of the diagnostic information that was collected, a description of an action plan produced by the indigenous communities themselves and finally, a description of the actions to be financed under the GEF Project. Investments specifically directed at the indigenous communities are grouped in the "Indigenous Communities Development Component".

POPULATION AND ETHNIC COMPOSITION

6. The population of the region is estimated to be around 380,000 inhabitants, occupying thirteen municipalities in the two autonomous regions of the Atlantic. In terms of its ethnic composition, about half is indigenous and the rest is *mestizo* and creole. In 1996, the indigenous populations was estimated to be 183,000 inhabitants, with about 70 percent living in rural areas. This includes the Miskito, Mayagna, Garífona, and Rama peoples. A brief description of each ethnic group follows:

7. The *Miskitos* are the largest indigenous group, comprising about 102,000 people, including families in Jinotega and Managua (outside the Atlantic region). Their most important settlements are in the northern part of the North Atlantic Autonomous Region (RAAN) where they constitute an absolute majority of the population, but they also have settlements in the South Atlantic Autonomous Region (RAAS) and account for about one-third of the combined population of the two regions. There also are Miskito settlements in Honduras and Costa Rica.

8. Estimates of the *Sumu* or *Mayagna* population vary significantly, but they probably number about 8,000 individuals. They include three subgroups: the Panamahka, the Itwhka, and the Ulwa, which all live in different areas and vary markedly in their degree of assimilation into the dominant *mestizo* culture. Historically, the Mayagna have been one of the Nicaraguan indigenous groups most strongly affected by the process of outside domination which began in the Spanish colonial era. Most Mayagna live in the RAAN, where they represent 4.8 percent of the population, though some scattered groups of families live in the RAAS.

9. The *Rama* were drastically affected by both Spanish and English colonization, and have suffered the greatest decline in population and territory of any indigenous group on Nicaragua's Atlantic coast. One estimate puts the current Rama population at about 1,400, less than 1 percent of the total population of the Atlantic region. They live to the south of Bluefields on a tiny island called Rama Cay and in scattered settlements on the mainland as far south as the Punta Gorda River basin. The cultural survival of the Rama is seriously threatened.

10. The *Garífona* or *Black Caribbeans* are descended from indigenous peoples, though not from groups native to Nicaragua. While there is not a consensus, most authors consider the Garífonas as the intermingling of indigenous peoples and Africans in the

British colonies of the Caribbean, and estimate that they came to Nicaragua in about the middle of the nineteenth century. While the size of the Garífona population is uncertain, government data from the RAAS puts their number at 3,068, or about 3 percent of the autonomous region's population. The Garífona occupy lands claimed by the Miskitos.

11. The *Creoles* or *"Criollos"* are the oldest non-indigenous population of the Atlantic region. They apparently are descended from black slaves who mutinied or were shipwrecked during the first centuries of Spanish colonization. They number approximately 36,420 individuals; the great majority are settled in RAAS where they represent more than one-third of the population. Though the creole have some rural settlements, they mostly live in urban areas, especially Bluefields.

12. The *mestizo* population of the Atlantic region is a result of the increasing migration of Nicaraguans from the Pacific region since the mid-nineteenth century. This occupation intensified with the establishment of banana plantations and large-scale mining operations during the first decades of the twentieth century, and expanded further as the agrarian programs of the 1960s promoted large settlements of small farmers. The *mestizos*, numbering about 104,000 individuals in the Atlantic, are more numerous than any other ethnic group, and constitute more than 42 percent of the total population of the Atlantic region.

13. In the 1980s, as a consequence of the civil war that engulfed Nicaragua, indigenous communities were uprooted, particularly in the North, and the population partly dispersed to Honduras and other areas inside the country but away from their traditional settlements. Their numbers declined but exact figures are not available. At the end of the war in 1986, many indigenous people returned and rebuilt their traditional communities, but ten years later it was estimated that some communities were declining in population.

SOCIAL ORGANIZATION AND DIFFERENTIATION

14. The basic form of indigenous social organization is the community. Within the community there are traditional institutions and social systems to deal with public health, justice, morality, and power. Women in Miskito communities have traditionally been very active in community affairs, having a recognized influence in organizations such as the Council of Elders. Their influence has however been waning due to two factors: (a) the teaching of Christian religions which favors the role of men over that of women; and (b) lack of knowledge of Spanish, the official language of the country. In contrast, women in Mayagna communities tend to play a secondary role in social organizations.

15. Indigenous social organizations are very solid and efficient in dealing with internal affairs. They have contributed to holding communities together during very difficult times. Nevertheless, outsiders have continuously tried to weaken and break the social fabric of the communities in order to advance their own agendas. During the first half of the century, banana companies, gold mining interest, the Moravian Church and the Somoza regime all tried, with varying degrees of success, to use community structures to their own

benefit and to reduce the level of demands from community groups. Traditional authorities were not formally recognized yet they were used by outsiders. Moreover, after the Sandinista revolution, the government tried to subvert traditional authority, creating other government structures at the regional and central levels.

16. There is a serious risk that both governmental and non-governmental organizations continue to weaken community structures by by-passing them, favoring relationships with either specific groups or individuals. Even though traditional forms of community governance have limitations, they have real potential to be effective agents of change. A brief description of these social institutions is given below:

17. *Council of Elders.* It is formed by elders and people with high standing in the community, including some relatively young persons who are elected to the post. Its mission is to provide guidance and to advise on all community affairs deemed important. Currently, the Council of Elders is the institution in which indigenous peoples have the greatest degree of confidence (39% of the people surveyed during the preparation of the IPDP had favorable opinions of the Elders and opinions against were negligible).

18. The *Síndico* is also elected by the community, representing it in matters regarding land and natural resource management, especially use of timber. It is also in charge of managing collectively owned resources. However, the Síndico is subject to much criticism and can be replaced at any time by the community. While 30% of the people had favorable opinions about their Síndico, a significant proportion (21%) had unfavorable opinions.

19. The recently created "Association of Síndicos of the Atlantic Coast of Nicaragua" *(ASICAN)* is one of the main efforts of indigenous people to create a regional organization. Its driving force is the struggle for territorial claims of indigenous people but it is affected by contradictory opinions not only about its role (advocating land rights and managing resources) but also by the internal divisions among indigenous peoples of the Atlantic coast.

20. Among the Mayagna, besides the Council of Elders, there is an ethnic federation, *Sukawala*, that functions as an intermediary NGO between the communities and outside organizations. The Judge (*Wihta*) is another authority elected by the community. His responsibility is to deal with internal organizational matters, including discipline and internal order. In some cases, besides the judge, there is a community policeman to keep order.

21. The *Pastor* or spiritual leader is considered the most powerful person in indigenous communities. He is selected by the church (usually Moravian) and remains in function from two to three years. Other community figures with varying degrees of prestige/authority are teachers, health workers (including midwives) and project promoters. But, overall, the community confers the greatest legitimacy on the Pastor and the Council of Elders.

INDIGENOUS COMMUNITY LANDS: LEGAL ISSUES

22. To understand the origins of legislation affecting the land title of indigenous peoples on the Atlantic coast of Nicaragua, it must be remembered that during the colonial period the Atlantic Coast was the object of a long military and political dispute between Spain and the United Kingdom. In the mid-eighteenth century the United Kingdom occupied and established a protectorate over the area that favored its economic and commercial interests, and did not cede most of its power there until the mid-nineteenth century.

23. A first significant element in the background of indigenous legislation in Nicaragua is the Indian Laws of the Spanish Colonial Government which, among other things, provided indigenous people some recourse in the protection of their lands and allowed certain forms of self government. This gave rise to the so called "Indian Lands" which were granted to them with full ownership; they could not be sold nor were they subject to liens or limitations on ownership. Along with the Lands, the Colonial Government also allowed semi-autonomous forms of government through the institution of "*Cabildo de Indios*" (Indian Local Government). After Central American independence from Spain in 1821, England, the United States, and Nicaragua vied for control of the Atlantic region, until a 1894 treaty formally put the territory under the political authority of Nicaragua.

24. After independence, Nicaragua adopted policies for the rapid integration of indigenous peoples into mainstream national culture and society. To accomplish this, numerous provisions were issued to dissolve the community-held lands and end indigenous self-governance. These goals were partially met, but many communities resisted the change and survived as independent indigenous entities into the early twentieth century, even though their land titles had been lost or declared invalid.

25. In the Harrison-Altamirano Treaty of April 1905, the United Kingdom definitively surrendered all protectorate rights over the indigenous peoples of the Miskito Coast and recognized Nicaragua's complete sovereignty over the region. However, one of Nicaragua's treaty commitments was to respect the territorial rights of the indigenous peoples, and a special commission was set up to implement the accords. Between 1915 and 1925 the commission processed approximately thirty legal land titles recognizing the territorial rights of indigenous peoples over an area estimated at about 100,000 hectares.

26. Later, the Agrarian Reform of 1963 envisaged several provisions affecting indigenous communities. The most important involved a definition of uncultivated lands which apparently excluded lands occupied by indigenous peoples, and provisions intended to convert indigenous communities into cooperatives but which instead only succeeded in legalizing the occupation of indigenous lands by third parties. In addition, within the framework of the Northeastern Forest Project, the National Agrarian Institute (*Instituto Agrario Nacional*, IAN) granted land titles to about twenty-six indigenous communities in the municipalities of Waspan and Puerto Cabezas between 1974 and 1976, apparently on the basis of Section 88 of the 1963 agrarian law which reads: "To those possessing community lands referred to by Article 8 of the Law of June 3, 1914 or to their heirs, IAN

must grant the respective ownership title in accordance with the norms of the present Law."

27. Following the overthrow of the Somoza dictatorship in 1979, a new agrarian reform law was adopted in 1981. The law did not substantially change the orientation of the 1963 reform intended to convert indigenous communities into cooperatives, nor did it significantly change the existing system for granting land to small farmers. A 1986 amendment to the 1981 law, though not changing the legal model for granting lands, opened up the option of legalizing lands for indigenous and Creole communities on the Atlantic Coast. Available information indicates that under this law about 119,470 hectares were legally deeded to communities on the Atlantic coast up to 1988, including title for 37,319 hectares that was later revoked. However, some of these titles may have been for land that previously had been granted by the Commission enacting the 1905 Harrison-Altamirano Treaty. To date, under various legal instruments, 267,899 hectares have been deeded to the communities of the Atlantic coast.

28. The new constitution of 1987 and the Autonomy Law for the Atlantic Regions significantly changed Nicaraguan policies toward the country's indigenous populations by opening up the possibility for them to achieve full ownership of their traditional lands, control of their natural resources, and the maintenance and development of internal government to manage their own community affairs.

29. The constitutional reform of 1995 further enriched the body of constitutional norms dealing with indigenous issues by introducing new concepts such as "ethnic, social, and political pluralism" and "indigenous peoples," which are now accepted in some other countries and which have bought about a new awareness of relations with ethnic minorities. In spite of the progress made, there is a consensus among government entities, grassroots indigenous organizations, and groups that support indigenous rights and environmental protection on the need to simplify and clarify procedures for granting indigenous communities title to their traditional lands.

30. Titling lands for indigenous communities, while essentially a legal act, entails complex issues of public interest and has political connotations. The responsibility of titling or recognizing indigenous lands rest clearly on the state, with the committed involvement of various public agencies. It requires definition of the necessary legal, institutional, and strategic instruments and a coordinating entity to monitor and direct the entire process to ensure that titles are legally and technically sound. Nicaragua has a wealth of substantive norms recognizing rights and creating responsibilities and commitments in the deeding of lands to indigenous communities. But these norms have not been developed into regulatory actions ensuring their enforcement nor into procedural regulations providing the legal recourse and instruments needed to translate the rights and responsibilities into acts.

31. Titling lands requires not only legal instruments, but also the necessary procedural instruments and institutional resources. A short list of basic requirements includes: clear definition of the institutional functions and responsibilities for titling, coordination,

implementation, and support; adjustment of institutions to direct or support this process; and the technical and financial resources to push the process forward.

32. By its very nature, land regularization requires technical, legal and social research. Institutionally, two types of functions are needed: coordination and implementation. The coordination function was given by executive decree to the Land Demarcation Commission, created in 1996 and to be reformed in 1997, in which both key central government agencies, the regional councils and indigenous peoples of the Atlantic coast are represented.

33. Regarding implementation, the provisions for adjudicating lands to the indigenous communities, as community property, inalienable and exempt from liens and limitations, are contained in the Constitution and in the Law on the Autonomy of the Atlantic region. However, the latter has neither been fully developed nor complemented with regulations on adjudicating lands to the communities.

34. With respect to the management of natural resources in indigenous territories and the internal legal framework of indigenous communities there are numerous ambiguities and gaps in the legal norms that should be clarified and corrected. Also, there is no special framework in line with current constitutional provisions that addresses indigenous communities and the management of communal lands. A summary review of the legal texts directly relating to indigenous peoples and their natural resource rights shows several ambiguities and gaps. In the first place, the historical commitment to recognize the land rights of indigenous communities must remain clear in the acts of titling, because the titles of ownership cannot be subjected to the same contingencies as are ordinary land transfer titles. Second, legal norms must clearly state that the granting of the status of protected area must fairly take into account the historical rights of the indigenous people to such area and to the use of forest, fauna, water, and other natural resources. Such clarity seems particularly necessary when the areas in question take on the two-fold status of indigenous lands and protected areas.

35. In current Nicaraguan jurisprudence there is an almost total absence of provisions to offer legal recourse to indigenous people to prevent or correct the frequently harmful effects of activities like mining, hydroelectric, and irrigation projects. The norms governing the communities right of use of those resources need to be clarified. But, in addition, it would also be appropriate that public resources like fish in public waters that cross indigenous territories be recognized as belonging, at least in a priority manner, to the respective communities, since they are strategic for the survival of these populations.

NATURAL RESOURCE MANAGEMENT/LIVELIHOOD SYSTEMS

36. The indigenous patterns of natural resource management are still predominantly traditional, based on subsistence needs. They combine shifting agriculture with hunting and gathering and fishing. Indigenous communities have traditionally managed their natural resources and have been able to maintain their forests, but population growth, coupled with increasing perceived material needs, have led them to disregard their old

customs and to extract resources non-sustainably. There is almost no forest management in the indigenous communities with some notable exceptions, such as: Saupuka, in the lower Rio Coco; Wasakin, a Mayagna community in Rosita; and Waspuk, where communities have made significant efforts to manage their forests. In many communities logging rights are regularly sold to outside entrepreneurs.

37. Agriculture is a family activity carried out in communal lands, with simple tools and no inputs other than family labor. The care of home gardens is the primary responsibility of women. Men are responsible for hunting, fishing, and other off-farm activities. In periods of war, such as those experienced by Nicaragua in the recent past, young men have left the communities, leaving all responsibilities in charge of those who stayed behind, usually women and children.

38. Due to the poor quality of the soils, people rotate their agricultural plots and, in some cases, have to make long journeys to reach their farthest plots. The main crops produced are beans, rice, maize, root crops, and plantain. Areas under production average 1.9 hectares per household in Rio Coco and 4.2 per household in Waspuk/Bosawas. Cattle ranching is of limited extent, yet it is a growing activity. Communities and families with access to rivers, lakes, and the sea also fish.

39. Livelihood patterns are affected not only by the increasing needs of the population in the context of a shrinking resource base but also by the fact that trade in agriculture and forest products faces obstacles such as long distances and the lack of roads. Where there are commercial activities, they are dominated by intermediaries who have little competition and thus impose prices on producers and consumers alike. Timber production is also affected by the lack of knowledge about the market and by the dependency of communities on a few logging enterprises.

40. Improved natural resource management and development in these areas require a concerted effort, based on technical assistance, training and focused investments, not only to improve production but to create marketing channels so that people can sell under less exploitative conditions.

THE ACTION PLAN

41. As part of the preparatory work carried out for the Atlantic Biodiversity Corridor Project, an action plan, consistent with the spirit of the World Bank's Indigenous Peoples Development Plan (IPDP), has been prepared.

42. The *goal* of the plan is to promote the development of indigenous communities by promoting sustainable management of natural resources and access to culturally compatible benefits in an overall context of biodiversity conservation, particularly along key areas of the Atlantic Biodiversity Corridor. The specific *objectives* are:

(a) To support land tenure security through the regularization (demarcation and titling) of indigenous communities' lands, based on their ancestral

rights, the rights recognized by Nicaraguan legislation and the claims made by indigenous communities. This can be accomplished by helping the government design and adopt procedures for regularization of indigenous communities' land with the full participation and explicit acceptance of the beneficiaries.

(b) To build indigenous peoples' capacity for sustainable development by increasing training in social, administrative, technical, and financial aspects, particularly focusing on land regularization and enhanced natural resource management.

(c) To provide investment funds for sustainable development based on natural resource management by indigenous communities and organized groups in their areas of occupation, both in protected areas and buffer zones of the project's priority areas in the Atlantic region.

43. The *outputs* to be expected from the Action Plan are the following:

(a) Indigenous organizations strengthened in their capacity to formulate proposals and document their territorial claims, including the creation of a data base that would serve to document indigenous communities' land claims as well as increased indigenous people's knowledge of their land tenure and natural resource use rights in the context of the Nicaraguan constitution and laws.

(b) Improved indigenous peoples' knowledge and practice of natural resource management techniques, as a consequence of pilot investment activities financed by the project, leading to an increased number of sustainable development projects self- managed by indigenous peoples.

44. In summary, the Action Plan suggests a number of *strategies*:

(a) Give priority to solving the land tenure issue. Land is a crucial factor for the cultural survival and livelihood patterns of indigenous peoples.

(b) Build on the development experience of successful cases already implemented by non-governmental organizations and indigenous communities in the region, starting with actions designed to provide food security and advancing to broader actions of sustainable development. In the same vein, it is important to recognize and work through existing social organization and leaders such as the pastors and the Councils of Elders.

(c) Support conservation-enhancing economic activities in an integrated way, considering not only the need to improve production but also processing and marketing.

(d) Promote participatory processes, especially capacity-building activities; indigenous people have identified this as a priority because it can contribute to conservation/management of natural resources in a sustainable fashion.

(e) Adopt a gender approach, ensuring that both men and women participate in all project activities. Women have traditionally been the standard bearers of cultural values and have proven to be good administrators of resources, including financial ones.

45. In starting implementing the first strategy, the Ministry of Natural Resources has suggested a preliminary action plan 1997-2000. This draft action plan will be discussed by the Demarcation Commission, and studied by its technical commissions in late May of 1997. Some of the key actions of this plan include:

(a) In order to legally define the concept of communal property, (i) identify the legal instruments, their scope, and submit them for approval; and (ii) prepare, consult and submit for approval, a Law on Communal Property in the Atlantic Coast (May 1997- December 1998).

(b) In order to provide indigenous communities and their representatives with juridical personality, (i) institutionalize indigenous organizations; and (ii) provide indigenous leaders with legal representation of their communities (January-December 1998).

(c) In order to institutionalize the legalization of demarcation activities; (i) identify the roles of each institution (national and regional); (ii) define and recognize the role of the community and intra-community instruments (January 1998-May 1999).

(d) In order to establish a legal channel to inscribe indigenous lands, (i) in partnership with the communities, design the appropriate instrument to respond and resolve land tenure claims; (ii) study and create a National/Regional Registry for Indigenous Communities (or its equivalent); (iii) support initial activities of the Registry (May 1998-May 1999).

(e) In order to maintain a cartographic record of the Atlantic Region and its land tenure situation, prepare and complete the necessary instruments to keep this information up-dated (May 1998-December 2000).

DESCRIPTION OF INDIGENOUS COMMUNITIES DEVELOPMENT COMPONENT (TOTAL: US$2.4 MILLION; GEF: US$1.28 MILLION; GON: US$0.19 MILLION; DONORS: US$1.0 MILLION)

46. The project will give priority to areas inhabited by indigenous peoples which meet at least two basic criteria: importance for biodiversity conservation (see Annex 4 for

justification of the choice of areas) and urgent need for demarcation in the absence of any other similar demarcation effort. By these criteria, the areas with priority status are: i) Si-A-Paz and Cerro Silva/Wawashan (in RAAS) and ii) in RAAN, Biological Reserve Cayos Miskitos, Makantaka (mid-catchment Rio Grande de Matagalpa), Mid- and Lower catchment of Ríos Prinzapolka and Layasika, Mid-catchment of Rio Leiku, Laguna Bismuna, and the coastal zone between Cabo Viejo and Río Coco. The design of this component does not include activities with indigenous peoples which are financed under other components of the ABC project. Three subcomponents are planned.

Strengthening of Indigenous Organizations and Training (Total: US$0.2 million; GEF: US$0.24 million)

47. Indigenous organizations will be strengthened through technical assistance and training. Special efforts will be made to use indigenous languages and appropriate media channels. Target organizations include the demarcation/natural resource committees being formed at the community level by indigenous peoples and higher level organizations that have been actively involved in the land demarcation process, such as ASICAN, Councils of Elders, and SUKAWALA. The project will also dedicate resources to activities leading to conflict resolution.

48. Attention will be paid to indigenous organizations' needs for training in the design and implementation of land tenure regularization and natural resource management projects. To this end, there will be support for focused studies (including those in paragraph 45) and technical assistance on land demarcation and titling, leading to the preparation of land demarcation proposals; travel of key members of the Land Demarcation Commission to learn about progress made in other countries regarding indigenous land tenure regularization and the sustainable use of natural resources; and internal workshops among indigenous communities to discuss issues of land demarcation and sustainable natural resource use.

Support for the Regional Governments and the National Commission for the Demarcation of Indigenous Lands (Cost is included in Demarcation Subcomponent Below)

49. The National Commission for the Demarcation of Indigenous Lands (NCDIL), an inter-institutional advisory body recently created by the government, has a key initial role to play in the preparation of recommendations to the Government regarding procedures for the juridical recognition of indigenous communities, procedures for the regularization of indigenous lands and the institutional framework for land regularization. This Commission will also be supported in terms of legal technical assistance, financing the participation of indigenous organizations in its workshops and meetings, and legal technical assistance to the indigenous organizations.

Indigenous Land Demarcation (Total: US$2.2 million; GEF: US$1.04 million; GoN: US$0.19 million; Donors: US$1.0 million)

50. As a necessary complement to technical assistance and training, resources will be dedicated to promote and advance the actual land regularization process. To accomplish this it will be necessary to work at different levels, both with national, regional, and local government agencies as well as with indigenous organizations, especially at the community level. While the government decides on the public agency in charge of demarcating indigenous lands, communities must be prepared to advance the process and to lobby for regional government support for their claims. In addition to the general support for the elaboration of procedures and regulations regarding demarcation of indigenous lands, communities will need help technical assistance in conflict resolution, mapping activities and demarcation *in situ*. Limited support will also be provided for operations.

IMPLEMENTATION ARRANGEMENTS

51. Technical assistance to the National Commission for the Demarcation of Indigenous Lands (NCDIL) would be recruited by the PIU in response to request from the NCDIL and following Bank procurement procedures. Due to tensions and conflicts in the region over indigenous land issues, and the lack of a representative organization or institution acceptable to all indigenous communities, the consensus generated during project preparation is that assistance to indigenous communities for organization and training and land demarcation would best be provided by a non-local NGO or private firm with substantial conflict resolution skills. These activities would therefore be executed by service providers (NGOs or private consulting firms) specifically recruited for the process following Bank procurement guidelines. The NCDIL would take the initiative of proposing TORs and a short list and selection criteria for the service providers while the PIU would have the right to issue a non-objection to the decision.

ACTIVITIES OF THE IPDP INCLUDED IN OTHER COMPONENTS

52. In addition to the activities specifically targeted at indigenous peoples described above, indigenous communities will be eligible for subproject financing as described in Annex 4, will be one of the key target stakeholders for the public communication and education component (Annex 2) and will participate in the participatory planning process associated with the ABC (Annex 3).

ANNEX 6. DESCRIPTION OF THE RURAL MUNICIPALITIES PROJECT[1]

COMPONENT I: RURAL MUNICIPALITIES DEVELOPMENT

Background and Objectives

1. The Rural Municipalities Development Component was designed to respond to: (a) the need to strengthen local institutions in rural areas such as local governments, NGOs and communities; (b) the need to foster economic growth in rural areas where most of the poor are located; (c) the need to directly provide support to the poorest men and women; and (d) the need to conserve and restore critical natural resources and protect the local environment. Initially those activities were considered only for the Pacific region. The creation of the ABC project channaled some funds for these activities to the Atlantic, since these two projects are highly complementary.

2. The objective of this component is to establish a mechanism based on municipal governments and community organizations for reducing rural poverty through rural investment in economic infrastructure, improved natural resource management and small-scale communal productive activities. This component includes the following subcomponents: (a) Institutional Development of Municipalities; (b) Information, Participation, and Training; (c) Community and Municipality Subprojects; and (d) Strengthening of INIFOM.

Institutional Development of Municipalities (Total: US$5.8 million; Atlantic Region: IDA US$ 0.3 million, GoN US$ 0.3 million)

3. The objective of this subcomponent is to establish technical and managerial capacity at the municipal level to: (a) assist the rural poor; (b) manage natural resources and protect the environment; (c) support local economic development through public goods; (d) manage the Community and Municipality Subprojects Subcomponent; and (e) manage the funds which flow to the municipalities as part of the system of fiscal transfers. The sub-component includes two activities: (a) Creation/strengthening of Municipal Technical Units (MTUs); and (b) Training and technical assistance on project management and municipal affairs.

[1] The resources that will go to the Atlantic Region from the Rural Municipalities Project are approximately 10%.

4. The project would finance minor equipment and office upgrading, consultants, incremental salaries and other recurrent costs to assist municipalities with the following activities: (a) recruitment of staff and physical establishment of the MTUs; (b) operation of MTUs; (c) setting-up a subproject monitoring and evaluation system; and (d) setting-up a system of financial controls and project accounts at the municipal level.

5. The project would finance consultants, seminars, workshops, study tours and other training expenses for the MTUs and other municipal staff in the following thematic areas:

(a) the subproject cycle, including on the identification, preparation, appraisal, implementation and operation of subprojects in various thematic areas;

(b) participatory methods including participatory planning;

(c) environment and land use plans and design and planning of rural development, natural resources and environment programs;

(d) gender and indigenous peoples related issues;

(e) accounting, auditing and financial management related to the project and municipal operation in general;

(f) subproject monitoring, evaluation and reporting;

(g) procurement for works, goods and consultants and NGOs at the local level;

(h) local revenue generation and cost recovery for maintenance activities;

(i) personnel recruitment and management;

(j) municipal administration; and

(k) legal assistance.

Information, Participation, and Training (Total: US$2.8 million; Atlantic Region: IDA US$0.3million)

6. The objectives of this subcomponent are to: (a) make the rights and responsibilities of communities and local governments widely known to increase the level of community control and local transparency and accountability; (b) increase the supply of local technical services to support communities and municipalities; and (c) generate increased demand for subprojects. This sub-component includes three activities: (a) promotion and dissemination of project; (b) creation and operation of community participatory structures and participatory planning; and (c) training of community leaders, NGOs, and local consultants.

7. The project would finance consultants, dissemination materials, seminars, workshops and travel expenses for the promotion and dissemination of the project at the community level through town meetings, radio, TV, videos, written materials, other informal communication devices, and seminars and workshops for community members, leaders, and notables. The project would also finance consultants and travel expenses to assist with the creation and/or operation of the Intercommunity Assembly and the Community Supervision Committee and with participatory planning events. Finally, These subcomponents would finance equipment, consultants, seminars, workshops, rental of facilities, training materials, study tours and travel expenses for training programs (Pacific and Atlantic) to build the capacity among relevant professionals of local NGOs, private sector and government agencies.

8. The training program is designed to ensure that the professional skills of natural resource management specialists and sub-project managers are adequate for sub-project needs. This component is targeted at local NGOs, private sector and government operating at the local level who must assist communities and municipalities with all aspects of the subproject cycle from identification to operation and who will ultimately exert technical control over the subprojects. In the past the provision of opportunity to maintain and/or upgrade the professional skills of this group has been largely ignored.

9. The project would also finance consultants for the development and maintenance of a registry of successful course graduates and other NGOs or professionals qualified for providing technical assistance to municipalities and communities on all aspects of the sub-project cycle, participatory planning, and the thematic areas associated with the project. This registry would be maintained in INIFOM and in each MTU.

Community and Municipality Subprojects (Total: US$23.4 million; Atlantic Region: IDA US$ 1.7 million, GoN US$ 0.7 million)

10. The project would finance matching grants for small subprojects proposed by communities and municipalities in the Pacific and Atlantic regions. There would be a broad range of acceptable sub-projects falling in the following categories: (a) environment and natural resources; (b) municipal infrastructure; (c) community infrastructure; (d) productive; and (e) capacity building.

Strengthening of INIFOM (Total: US$3.3 million; Atlantic Region: IDA US$ 0.3 million)

11. The objectives of this sub-component are to help develop: (a) the conditions in INIFOM to implement the component; and (b) a legal framework to ensure project sustainability. The project would finance minor office works, equipment, consultants, studies, seminars and workshops, study tours and incremental salaries and other recurrent costs for the:

(a) Directorate of Planning which will be responsible for implementation of the Rural Municipality Development Component; the project will cover the costs of a Planning Advisor, Procurement Advisor, Accountant and Disbursements Officer, and Project Auditor.

(b) Directorate of Technical Assistance which will be in charge of managing several technical assistance and training programs; the project will cover the costs of a Training Advisor.

(c) Directorate of Information and Technology Services; the project will cover the costs of a Monitoring and Evaluation Specialist.

(d) Regional Delegations of INIFOM in León and San Carlos; the project will cover the costs of an Agricultural Engineer (León and San Carlos) and a Water Engineer (León).

12. The project would finance consultants and workshops to assist the GoN with the design and preparation of legal proposals for the Municipalities Law in the area of fiscal transfers, decentralization strategy, Municipal Workers Code, resolution of conflicts between decentralization legislation and other legislation under preparation, and procedures for the granting of juridical personality to communities.

COMPONENT II. NATURAL RESOURCES POLICIES AND INSTITUTIONS

Background and Objectives

13. The Natural Resources Policies and Institutions Component was designed to increase the capacity at the central government level to ensure that public and private actors internalize environmental concerns in their decisions. This is particularly important in the context of the decentralization process to local governments and communities supported by Component I. Local institutions may inadequately consider the costs of their actions on other jurisdictions, and this is particularly so in the case of the environment where there are substantial regional, national, and global externalities. Hence it is necessary for central government to keep track of these effects and through a variety of instruments prevent local jurisdictions from taking actions that cause more harm on others than the benefits that accrue to them. This component is particularly important also for the Atlantic region in order to implement successfully the ABC project.

14. The second important consideration in the design of both this component and of component III—the associated Atlantic Biodiversity Corridor Project, to be financed by GEF, was to assist government in putting in place a legal and institutional framework that would create the necessary conditions, as stated in Bank policies, for future Bank supported investment projects in the natural resources sectors, and in particular in forestry and coastal zone management.

15. The key objective of this component is to ensure that GoN and local institutions and communities take into account important regional, national, and global environment aspects in their decisions by improving the policy and institutional framework for natural resources. This component consists of a small technical assistance program covering three different areas: (a) Strengthening of MARENA; (b) Interinstitutional Assistance Program; and (c) Support to Technical Coordination Unit. This component is managed by the same administrative unit that will implement the GEF project and so is particularly tied to the GEF project.

Strengthening of MARENA (Total: US$ 1.9 million; Atlantic Region: IDA 0.2 million, GoN 0.1 million)

16. The objective of this subcomponent is to increase the institutional capacity of MARENA in the areas of: (a) policies and laws formulation; and (b) protected area management. The policy and law formulation activity will help MARENA to mainstream sustainable development concepts in the formulation of its own policies. It will also finance some studies to develop Corridor-compatible strategies for forestry, fisheries, mining, and livestock. These strategies will better enable MARENA to evaluate environmental impacts in various important national sectors. It will also look at the impact on the environment of rural poverty. The protected areas management activity will finance studies to develop a planning system for Protected Areas. It will also help to develop an information system (ecosystem maps and GIS maps). The project would finance equipment, minor office upgrading, consultants, studies, seminars and workshops, study tours, and incremental salaries and operating costs for strengthening the recently created Directorate of Planning and within it the Divisions of Policy, Planning and Interinstitutional Relations, and the Directorate of Protected Areas. The project would finance advisors in international agreements, participation, indigenous issues, NGOs, and protected area management.

Interinstitutional Assistance Program (Total: US$2.1 million; Atlantic Region: IDA US$ 0.2 million)

17. The NEAP identified lack of capacity to design, implement, and enforce sustainable development policies as a major problem underlying environmental degradation in Nicaragua and called for an integrated program of multi-institutional support to increase capacity of several agencies in Nicaragua to handle environmental issues. The objective of this component is to increase the capacity of MARENA to assist other government agencies with implementation and enforcement of sustainable development and environmental policies.

18. The project would finance studies, consultants, seminars and workshops, study tours, and minor equipment to assist MARENA in providing technical support services to the: (a) National Assembly on elaboration or review of legislative proposals related to natural resources and environment and related topics; (b) Judiciary on developing curricula, training trainers, developing training materials, and training of about sixty

Supreme Court and other judges on environmental matters; (c) Office of the Attorney General with the establishment of an Environmental Affairs Unit; (d) police environmental units on developing curricula, training trainers, and developing training materials on control of illegal logging, wildlife trade, and contamination from mining and other industries; (e) army environmental units on developing curricula, training trainers, and developing training materials on monitoring of turtle landings, forest fires control, and monitoring of resource degradation and protected areas; (f) legal offices of central government agencies on training and technical assistance on environmental and natural resources legislation and regulation; (g) regional and municipal governments on training trainers, developing training materials, training and technical assistance on the regional roles and responsibilities in natural resource and environmental management, including local natural resource taxation and environmental planning; (h) Indigenous Land Demarcation Commission on technical assistance and study tours to develop land demarcation plans; (i) the creation and support of the FNA (National Environmental Fund); and (j) the promotion and dissemination of the concept of the Atlantic Biological Corridor (as an interinstitutional issue) through, for example, the strengthening of a biodiversity NGO and the development of an ecotourism strategy.

Support to Technical Coordination Unit (US$ 1.0 million)

19. Through this component, support will be provided to the Project Implementation Unit (PIU) until the end of the project in 2002. This component will finance technical assistance, equipment, study, study tours, auditing, and salaries of the PIU. The PIU, based in MARENA, will have responsibility for managing the MARENA-administered portion of the Rural Municipalities Project (i.e., Component II) and the GEF Project. In the last year of the GEF Project, when the Rural Municipalities Project will have finished, project management expenses will be financed by the GEF Project.

ANNEX 7. PROJECT ORGANIZATION AND IMPLEMENTATION

CENTRAL LEVEL

Intersectoral Coordination

1. The Sustainable Development Council (CODES) is the main agency in Nicaragua for intersectoral coordination in order to achieve sustainable development. In the context of this project CODES will assist MARENA and the Project Implementation Unit (PIU) to coordinate intersectoral issues. See Table 7-1 at end of annex for further details on implementation arrangements.

2. The recently passed General Environment Law (1996) created the National Environment Council (CONAMA) as the highest level forum for the analysis, discussion, and negotiation of environmental policies and as the principal consultative group and advisor to the Executive Branch for the formulation of environmental policies and strategies. The law also provides for CONAMA to participate in the design and execution of environmental programs. In the context of this project, with the assistance of MARENA and the Project Implementation Unit (PIU), CONAMA would:

(a) convene national events to promote and disseminate the project and involve other relevant sectors (e.g., transport and forestry) and actors (private sector, local governments, NGOs, and universities);

(b) facilitate the ABC planning process by identifying potential impacts of large sectoral programs (e.g., mining, transport, or land administration) on the ABC and Atlantic region biodiversity and to coordinate and provide leadership in establishing the specific roles and responsibilities of relevant public sector institutions in support of the conservation of the ABC;

(c) provide leadership and serve as the forum for resolution of intersectoral conflicts arising out of inconsistencies between development policies and ABC strategies. The Natural Resources Policies and Institutional Strengthening Component (IDA-financed) of the integrated project will provide support to the operation of CONAMA.

MARENA

3. The Ministry of Natural Resources (MARENA) would be responsible for the implementation of the ABC initiative. The principles roles of MARENA would be to:

(a) supervise the project components, prepare the Terms of References, manage procurement, meet World Bank/GEF reporting requirements, ensure adequate counterpart funding is provided in GoN's budget, and make disbursements against approved work plans;

(b) integrate the ABC into the institution's strategies, planning frameworks, norms, and work programs;

(c) execute all of the national-level project activities;

(d) promote the ABC at the national level and assist in its promotion at the regional level;

(e) assist regional governments to coordinate donor investment projects within the ABC;

(f) supervise and monitor development and land use trends as they effect the viability of the ABC and, as required, act within their legal mandate to enforce compliance with environmental norms and regulations in protection of biodiversity resources in the Atlantic;

(g) provide technical assistance to regional and municipal governments in the integration of biodiversity concerns in land use planning and investment subprojects; and

(h) develop TORs and supervise consultants for the various training and technical assistance programs, financed by the GEF Project, at the national level.

4. Coordination between MARENA directorates on ABC issues would be the responsibility of the existing Technical Committee, comprised of the heads of all directorates. The roles of key directorates are outlined below:

5. *Directorate of Planning* would: (a) be the intermediary for coordination of all intra-institutional activities related to the CBA; (b) be responsible for the design, integration, and implementation of ABC monitoring and evaluation indicators within the intra-institutional monitoring and evaluation system; (c) be responsible for the integration of the ABC strategy into MARENA's strategies, planning frameworks, and annual work programs (POAs); (d) provide the PIU with biannual reports on the status of the integration of the ABC strategy within MARENA and biannual reports on the Directorates' completion of POA activities relevant to the ABC; and (e) provide information and assist regional governments in coordinating donor investment projects within the ABC;.

6. *Directorate of Protected Areas* would: (a) be responsible, in collaboration with the planning offices of the regional governments, for reviewing and approving terms of reference for the preparation of management plans and for the approval of plans and POAs; (b) provide technical/policy guidance to the Regional Government (Planning Unit-Regional Coordinator for Protected Areas) in the review of protected area management plans, investment plans, and POAs.

7. *Directorate of Environment* would: (a) be responsible for providing technical and policy guidance to the PIU and CONAMA for ABC planning as it relates to identification of potential impacts of sectoral activities (including forestry) on the ABC and Atlantic region biodiversity; (b) be responsible for the integration of the ABC strategy into MARENA's technical norms; (c) be responsible for the definition of the technical norms and methodological guides for the integration of the ABC into sectoral EIA requirements for the Atlantic Region; (d) be responsible, in coordination with the Nicaraguan Institute for Territorial Studies (INETER), to develop the norms, guidelines, and criteria for the integration of the ABC into environmental land use planning; (e) coordinate with and provide technical and policy guidance to the regional governments on the administration of the ABC-related sectoral EIA and environmental land use planning requirements for the Atlantic Region; and (f) supervise and monitor development and land use trends as they effect the viability of the ABC.

8. *Directorate of Forestry* would: (a) participate at the national and regional levels in ABC planning; and (b) ensure the integration of the ABC into of forest management planning and execution.

Project Implementation Unit

9. *MARENA Project Implementation Unit.* To enable MARENA to perform its functions under the ABC project as well as those under the Rural Municipalities Project, a Project Implementation Unit (PIU), financed by IDA and the GoN, was created. The role of the PIU will be to:

(a) coordinate activities within and between MARENA and the regional governments;

(b) serve as the liaison to the World Bank;

(c) organize and present the project's annual work plan for World Bank approval;

(d) disburse funds to RAAN and RAAS against approved work plans;

(e) meet project reporting requirements;

(f) contract and supervise audit and control activities;

(g) develop terms of reference and contract and supervise consultants; and

(h) with assistance from the National Commission for Demarcation of Indigenous Lands contract out activities of the Indigenous Communities Component to NGOs or consulting firms and supervise them.

10. The PIU will include an Implementation Coordinator, two Regional Project Coordinators to be physically located in the Planning Units of the regional governments, an indigenous peoples and participation expert, a gender expert, a procurement officer and an accountant and disbursements officer.

National Demarcation Commission for Indigenous Lands

11. The National Demarcation Commission for Indigenous Lands will be responsible for approving the demarcation plans for indigenous lands, approve the methodology, approve the TORs for the intermediary service provider, NGO or consulting firm, approve the contract and the final product. Other institutions may be appointed in the future to perform all or some of these functions.

FNA

12. In the last few years Nicaragua has made significant progress toward establishing the basis for sound environmental management. Among these accomplishment are: (a) the creation of the Ministry of Natural Resources and the Environment (MARENA); (b) the completion of the National Environmental Action Plan; and (c) the enactment of the General Law of the Environment and Natural Resources. These three initiatives form the cornerstone of an ambitious environmental agenda. One of the key instruments for the development and implementation of this agenda is the National Environmental Fund or *Fondo Nacional del Ambiente* (FNA), which was formally created by the General Law of the Environment and Natural Resources in 1996. Its design and implementation will be supported by the Natural Resources Policies and Institutions Reform Component of the Rural Municipalities Project and bilateral donors.

13. The objectives of the FNA are to develop and finance conservation, environmental restoration and sustainable development programs and projects. As stated in the Law, the organizations eligible to receive full or partial funding from the FNA are the public agencies, from the central government, the autonomous regions, the municipalities, as well as private non government organizations and businesses. To meet this broad mandate the FNA design concept is based on two structural elements: (a) a central organization, or framework structure, that is responsible for the development and implementation of a funding strategy that meets the needs of Nicaragua and that responds to the National Environmental Action Plan and the Atlantic Biological Corridor Strategy; and (b) independent accounts that can be customized—within constraints imposed by the central organization—to respond to specific programmatic needs and funding opportunities. The comprehensive mandate, the broad range of potential collaborators, and a flexible modular organizational structure have the potential of turning the concept of the FNA, as presented in the General Law of the Environment and Natural Resources, into an effective, open and transparent institution, that can become an important tool for the implementation of a broad-based agenda for environmentally sustainable economic development.

14. The design of the FNA as outlined in during project preparation will seek to build on the general principles established in the General Law of the Environment and Natural Resources to construct an organization with the following characteristics:

- a modular structure to give the FNA the capacity of establishing independent accounts to meet the needs of the broad range of potential executing organizations and donor requirements, as indicated above;

- a diverse board of directors with the effective participation of civil society organizations and government agencies that would allow FNA to define and implement funding policies consistent with national priorities;

- highly qualified staff recruited through an open and transparent process to give the FNA technical, administrative and financial credibility; and

- operating procedures that would promote (a) transparency in all aspects of the FNA operations, (b) flexibility to respond to needs and opportunities, (c) efficiency in the use of funds both, for its own operation and for the projects it supports; and (c) a clear service orientation to meet the needs of a clearly identified client base composed of the project beneficiaries, the executing organizations, and the funding agencies.

15. An environmental fund with this characteristic provides the appropriate institutional anchor for the establishment of a sustainable funding mechanism for the Atlantic Biodiversity Corridor Project. This project, will initiate a range of activities, aimed at changing resource use patterns and practices, that require long-term and stable funding in order to realize their full potential. FNA will be particularly important to coordinate financing of ABC projects supported by donors, to ensure ABC stakeholders participation in ABC financing decisions, to fund raise for ABC activities and to ensure the sustainability of the ABC project beyond its lifetime as well as financial sustainability of protected areas. Donors active in Nicaragua have strongly endorsed this GoN's initiative.

16. The Natural Resources Policies and Institutions Component (IDA) and bilateral donors (being negotiated) will support the design and implementation of the FNA.

17. A specific mechanism will be created within FNA to finance activities of the Priority Biodiversity Areas Component. This mechanism, to be detailed in the project's operational manual, will include (a) a decision-making committee, including representatives of regional governments, indigenous and non-indigenous communities, NGOs and private sector to approve financing for subprojects; (b) and detailed accounting, reporting and monitoring procedures for the funds channeled through FNA.

18. The design process will be used to raise additional fund to those being contributed by the ABC project. There a number of options that will be considered, among them:

increasing the contributions from international development agencies for environmental and sustainable development projects;

- taxes and other fees levied at the national and regional levels;
- revenues from financial investments of endowment funds after they have been established; and

debt-for-nature swaps, an option that is still viable in Nicaragua, that can have the twin benefits of reducing the debt burden at the same time that increases the funding available for environmental and sustainable development activities.

19. The FNA, as conceived in the Environmental Law of 1996, will be an umbrella fund, capable of managing, through separate and semi-autonomous accounts, funding for specific projects and from a variety of sources. The first account to be established under the framework of the FNA will be the ABC/GEF Account. During project preparation, the design process of both, the umbrella structure of the FNA and the ABC/GEF Account were outlined. This design process will be initiated under the supervision of the ABC Project Coordinator and will include the revision of the FNA regulations which are expected to be submitted to IDA for comments prior to negotiations. The formal approval of the FNA regulations, satisfactory to IDA, and the appointment of the Board of Directors of the FNA will be conditions of effectiveness. Once the Board of Directors has been appointed, it will appoint/designate a design supervisor to oversee the team of consultants contracted to complete the design of FNA and the ABC/GEF Account.

20. The design of the FNA and the ABC/GEF Account will produce, *inter alia*, the operations manuals that will be required for the FNA to function effectively at both levels: as an umbrella fund and as a project-specific account. These operations manuals will be approved by FNA's Board of Directors prior to disbursement. The design team, under the coordination of the design supervisor appointed/designated by FNA's Board of Directors will produce the TORs for all key personnel and will assist in the evaluation and selection of candidates for the key positions at both levels, including that of executive director of the FNA.

REGIONAL LEVEL

Regional Councils and Regional Governments

21. The Regional Councils would:

(a) comment on the protected area's management plans and POAs; and

(b) ensure that work programs and subprojects approved by the local Committees respond to established priorities and that they are being carried out as agreed.

(c) approve the expenditures for the regional public communication and education, planning and monitoring components.

22. Both of the Regional Autonomous Governments (RAAN and RAAS) currently maintain regional planning offices (Planning Unit). These offices, to be supported through the Natural Resources Policy and Institutional Strengthening Component of the IDA project and through activities included in the ABC Project, would be responsible for the preparation of the Terms of References, implementation and supervision of all activities at the regional and sub-regional levels involving ABC public communication and education, planning and monitoring, conservation and sustainable use in priority biodiversity areas as well as supervision of indigenous land demarcation, training, and strengthening of indigenous organizations. These regional offices would also prepare protected area management plans and PA POAs.

Regional MARENA

23. Regional MARENA delegates (Regional Project Implementation Unit - RPIU) would be responsible to: (a) coordinate MARENA's actions at the regional level and supervise outcomes; (b) assist regional and municipal government in environmental and land use planning; (c) prepare Terms of Reference for the Public Communication and Education Component and for the Planning and Monitoring Component; (d) approve Terms of References for the Capacity Building and Strengthening of Indigenous Communities Component, the Conservation of Priorities Areas Component, Sustainable Use Project, and Indigenous Land Demarcation Component .

LOCAL LEVEL

Local Ad Hoc Committees / NGO

24. Two Local Ad Hoc Committees representing communities, private sector, and local government would be created by the regional governments of RAAN and RAAS and would serve as the key decision-making structures over expenditures of GEF funds in priority biodiversity areas. These Committees would coordinate activities with the regional planning offices and serve as the local forum for setting of priorities relevant to the conservation and protection of the local segments of the ABC. They would also serve as a local conflict resolution mechanism for issues pertaining to the ABC development needs. These committees would be associated with a local NGO to be chosen by them that would serve as their operational arm, and that will assist the local committees executing their activities and will give them technical assistance. The Committees would:

(a) review and recommend for approval to the Regional Government (Planning Unit), all protected area management and community management plans and POAs;

(b) for eligible protected areas and ABC biodiversity conservation subprojects, receive, approve, and supervise subproject proposals submitted through the Regional Planning Offices, municipalities or directly by indigenous community;

(c) receive and approve technical assistance proposals from the private sector for development of ABC-related proposals;

(d) set priorities and prepare the investment plan for sustainable use projects presented by the communities;

(e) facilitate the consultation with the indigenous communities.

Communities and Community Organizations

25. Legally established community organizations would also be supported through the Municipal Development Component of the Rural Municipalities Project (IDA-financed) which includes support for participatory events, community development plans and community organization strengthening. In the case of indigenous communities, traditional indigenous organizations would represent the communities. Community organizations would prepare and submit development subprojects to the local committee. If not legally established, the presentation of documents for the recognition of their legal status (in accordance with the procedures to be developed in the legislation) would be prepared concurrently in order to allow them to be authorized as beneficiaries (details of procedures to be included in Operational Manual).

Indigenous Communities

26. For development subprojects, indigenous communities would benefit from the same activities programmed under the Municipal Development Component as non-indigenous communities. The only difference is that legally established indigenous communities (assistance would be provided for them to attain a legal status, for more details, see Annex 5) would be responsible for submitting subproject proposals to the Municipal Government and for organizing and managing the community participatory events. For sustainable use subprojects, legally established indigenous communities would also submit subproject proposals to the Local Committees following the same procedures as non-indigenous communities.

FLOW OF FUNDS

27. In terms of flow of funds, the regional governments would open bank accounts in Puerto Cabezas and Bluefields, respectively. Funds would be transferred from the MARENA Special Account (SA-A) into the regional governments' bank accounts according to work plans formally agreed to between MARENA and regional governments. The regional project coordinators would be one of the co-signers of payments made out of the regional government bank accounts. The same procedures would be followed for funds originating from the FNA/ABC Account (SA-B).

ANNEX 8. SOCIAL ASSESSMENT AND PARTICIPATION PLAN

1. Preparatory work for this project included extensive assessments and consultations with indigenous and non-indigenous communities. Experience with similar conservation projects in Central America has shown this to be critical for attaining the goals of the project. This was particularly so in Atlantic Nicaragua, an area of extreme poverty and high cultural diversity and complexity.

DESCRIPTION OF ACTIVITIES DURING PROJECT PREPARATION

2. Participatory and consultative activities for the preparation of the GEF Atlantic Biological Corridor Project included: (a) preparing an Indigenous Peoples Development Plan (see Annex 5); (b) regional seminars hosted by MARENA or by local authorities and donors; (c) preparing a participatory social assessment with *mestizo* communities. These activities included approximately 40 workshops and meetings, with the participation of more than 500 indigenous and non-indigenous representatives and authorities from 150 communities of the Atlantic Region.

Meetings Of MARENA with Regional Representatives

3. MARENA hosted six workshops with regional representatives from indigenous communities, local governments, donors, NGOs, and academia. Additionally, the GEF local team participated in five other meetings at the request of regional and national authorities.

4. Between July and August, 1996 MARENA hosted workshops in Nueva Guinea, Bilwi, Siuna, Bluefields, Boca Sabalos (Río San Juan), and San Carlos (Río San Juan). Representatives from indigenous Councils of the Elders, Regional *Síndicos*, Regional governments and their councils, ministerial field officials, municipal authorities, project directors, NGOs, and universities participated in these meetings.

5. Additionally, the GEF local team has presented the project to regional representatives in meetings (all memoires from these meetings are available in project files) hosted by:

(a) Planning Director of the South Atlantic Autonomous Region (RAAS). The objective of the meeting was strategic planning of sustainable development (7/96);

(b) Coastal Zone Project (9/96);

(c) Bosawas Project, in Siuna;

(d) SI-A-PAZ Project, in Nueva Guinea;

(e) Planning directors of both regional governments, RAAN's congresswoman, and RAAS Councils President, to design a promotion strategy (10/96); and

(f) Demarcation Commission, regional governments, and indigenous leaders (10/96).

6. In November of 1996 the GEF local team presented the ABC project idea to the joint Regional Government Councils of RAAN and RAAS. Both Councils officially endorsed the project idea and requested a more prominent role in project implementation, which is reflected in the project's design.

7. Finally, in February 1997 MARENA and the GEF local team hosted a donor meeting with participation of over 60 representatives from all the donors of the Atlantic Region, the President of RAAN, a representative from RAAN's Board, the newly appointed advisors to the President of Nicaragua on the Atlantic Region, and the Ministers of MARENA and INRA. As a result of this meeting, and as requested by the regional governments' representatives, the project will finance an annual donor coordination meeting to be hosted by the regional governments. The memoire from this meeting is also available in project files.

Social Assessment and Development Plan of the *Mestizo* Communities

8. Official socioeconomic information for the Atlantic Region is scarce and often inconsistent. The ethnic diversity, difficulty of transportation, lack of efficient communication systems, and recurrent violence of the region, have isolated the Atlantic inhabitants from Managua and discouraged in-depth socioeconomic studies and census-taking. For example, while the total population of the Atlantic Region is almost 10% of the total population of Nicaragua, only 5% of the sample of the 1993 Living Standard Measurement Survey, LSMS (used as the base of the Nicaragua Poverty Assessment Report No. 14038-NI from June 1995) was from the Atlantic Region. Additionally, since this sample was not disaggregated between indigenous and non-indigenous communities, field research during project preparation was necessary.

9. The objective of the social assessment that was carried out was three-fold: (a) to identify and understand non-indigenous stakeholders, their socioeconomic characteristics, migration patterns, and attitudes towards their environment; (b) to obtain input from these stakeholders on project scope and design; and (c) to identify their priority needs and opportunities in a Development Plan.

10. Between November 1996 and January 1997 a multi-disciplinary team of three to four local specialists visited by boat 70 mestizo communities within the Cerro Silva/Wawashan region, target area of the Project (see Map 3). The area of Wawashan and Cerro Silva is a key area for biodiversity conservation and the region in which most of the funds for conservation and sustainable use investments will be used.

11. To ensure broad coverage of the mestizo population within the area of influence of the project, six regions were identified based on the region's rivers and watersheds. The six areas were: (a) "La Cruz de Río Grande"; (b) "El Tortuguero"; (c) Patch River; (d) area between Kukra River and Cerro Silva; (e) area between La Providencia and Atlanta; and (f) Río Santa Cruz watershed area.

12. Based on analysis of the few data available, and non structured in-depth interviews during the visit to the region, three reports were produced: (a) *Detalle de Información de las Zonas Visitadas*; (b) *Propuesta de Plan de Desarrollo*; and (c) *Propuesta de Programas y Proyectos.* All of these reports are available in the Project File.

13. In addition, during the preparation of the project, two consultants produced reports on the regional economy of the Atlantic Region (*Economía Regional del Atlántico, and Características Generales de los Asentamientos Humanos en el Atlántico)*. These reports are also available in the Project File. Finally, the LSMS referred to above, was an important source of data during project preparation.

DESCRIPTION OF THE SOCIAL SITUATION IN THE ATLANTIC REGION

14. About half of the estimated 380,000 inhabitants of the Atlantic Region of Nicaragua are *mestizo* immigrants. *Mestizos* are the largest and fastest growing ethnic group in the region. The first part of this section describes the socioeconomic aspects of the region, and the mestizo communities in particular based on secondary information. The second part describes the findings from the field visits to 70 communities in the Wawashan/Cerro Silva Region. Indigenous communities are described in more detail in Annex 5.

15. The Atlantic region as described in this project (Map 2) is divided into the North Atlantic Autonomous Region (RAAN) covering 47% of the region; the South Atlantic Autonomous Region (RAAS) covering 35.6% of the region, Jinotega Municipality (10.5% of the region), and Río San Juan area (6.9% of the region). Settlements, agricultural land, and pastures occupy about 16% of the Atlantic Region. Of the remaining 84%, about 63% is covered by 16 different broadleaf forest ecosystems, 7% by pines, and the remaining 14% by 12 different ecosystems (including mangroves, coastal areas, and lagoons).

Historical Perspective on Mestizo Immigrations to the Atlantic

16. During the 1920s and 1930s, the first massive immigrations from the south Pacific region to the Atlantic region were encouraged by the establishment of banana plantations, rubber extraction operations, forestry projects, and large scale mining operations. During

the 1960s, agrarian reform programs promoted large settlements of small farmers. In each of these waves of settlement, mestizo settlers pushed indigenous communities further towards the Atlantic.

17. During the late 1970s and 1980s, mestizo immigration to the Atlantic Region decreased significantly because of the war in the region. More recently, in the early and mid 1990s, an inflow of immigrants (former combatants, repatriates from Costa Rica, and urban-poverty refugees) from Central and Pacific are now arriving in the Atlantic region attracted by the forestry, fishery, mines, and agricultural potential of the region.

18. During the 1990s, immigration patterns in the Atlantic Region have been either induced by the Central government (such as the Rural Colonization project Rigoberto Cabezas in the Municipality of Nueva Guinea; Agrarian Reform Projects mainly in the municipalities of San Carlos y Sabalos-El Castillo, in Rio San Juan; and recent repatriation initiatives supported by ACNUR and the Catholic Church in RAAS), or are spontaneous, encouraged by the economic activity in the region. Annually, about 80,000 hectares of forests are overtaken by agriculture and cattle ranching from new settlers. Table 8.1 presents total population of the region as recorded in the 1971 and 1995 censuses.

Table 8.1 Population Increase Between 1971 and 1995 according to official censuses[a]

Location	Pop. 1971	Pop. 1995	Increase in pop.	Increase (%)
RAAN & RAAS	145,508	398,905	253,397	174%
Río San Juan	20,832	70,875	50,043	240 %
TOTAL	166,340	469,780	303,440	182 %

a. Includes indigenous and mestizo populations

Socioeconomic Characteristics

19. The Nicaragua Poverty Assessment concluded that about half of the population of Nicaragua was below the poverty line[1], and that the poverty and extreme poverty are overwhelmingly rural. Of the rural poor nation-wide, 99% use wood for cooking, 98% don't have sewerage connection, and 79% have no access to piped water (inside or outside the house). Over half of the extremely poor in rural areas are illiterate. Poverty

[1] The poverty line is established as the per capita monthly expenditures necessary for the minimum daily caloric requirement (2,226 calories per adult) plus basic needs (clothing and transportation). The extreme poverty line is the per capita monthly food expenditures required to obtain the daily minimum caloric requirement.

incidence varies by region, although poverty in the Atlantic region is consistent with the national incidence of poverty (Table 8.2).

20. The rural poverty rate is specially significant in the Atlantic, where over 70% of the population is rural (157,792 inhabitants) (Table 8.3).

21. Regarding access to health care, those who are not classified as poor and who perceive themselves to be ill, are three times as likely to obtain care than the extreme poor. In the Atlantic region, of those who reported feeling ill, only 56% obtained care and only 39% received at least one consultation (1993).

Table 8.2. Poverty and Extreme Poverty Rates in the Atlantic Region

	Urban		Rural		Total	
Geographic area	E. Poor	Poor	E. Poor	Poor	E. Poor	Poor
Atlantic	8%	35%	30%	83%	20%	61%
National	7%	32%	36%	76%	19%	50%

Source: World Bank's Nicaragua Poverty Assessment Report No. 14038-NI (June 1995)

Table 8.3. Estimated Proportions of Urban and Rural Mestizo Population in the Atlantic Region

Region	Population		Total Urban		Total Rural		Mestizo Rural	
RAAN	219,330	100%	54,194	24%	157,792	72%	64,849	41%
RAAS	118,192	100%	39,459	33%	78,733	67%	41,674	53%
Jinotega	35,089	100%	2,889	8.2%	32,200	91.8%	23,612	73%

Source: Ortega, Marvin. Plan de Desarrollo de las Comunidades Indígenas del Atlántico

22. Almost a third of Nicaraguan children are malnourished. Four out of ten extremely poor children living in the rural areas are malnourished. In the Atlantic region 23% of the urban, and 35% of the rural children are malnourished.

23. Of the working age population (12 years or older) of the Atlantic, 48% participate in labor force; 3.2% were unemployed in the previous week and were actively looking for a job; and 27% were under-employed (working less than full time and looking for another

Nueva Guinea and Corn Island). The main economic activities are fisheries, forestry and agriculture. Fishery development is located from Sandy Bay to Punta Gorda, benefiting 16 communities. RAAS has fishery infrastructure in Bluefields, Bluff, and Corn Island. Around 25% of its region is covered by broadleaf, pine and mangrove, while 40% of the area (specially parts of Nueva Guinea and El Rama) are pastures. The remaining land is used in agriculture, with bean production concentrated en Nueva Guinea, and corn in El Rama and Bluefields. El Rama produces 28% of the regional production of corn and rice. RAAS has 2 ports, 3 banks, 1 rustic airport, 8 fishing industries, 3 communication centers, 2 sawmills and 1 storage facility for agricultural products.

27. Jinotega, with 10.5% of the Atlantic Region (7,245 km^2) has 54% of its territory in the Bosawas Protected area. It has two municipalities, Wiwili (12.3%) and Cua Bocay (41.7%). Forests cover 74% of the total area of Jinotega. Wiwili has 21% of its territory covered with pastures, while Cua-Bocay is the most important coffee producer municipality in the region. Jinotega has 1 bank and two good roads: Jinotega-Wiwili-Wamblan and Jinotega-Cua Bocay-Ayapal.

28. Río San Juan, with 6.7% of the Atlantic Region (4,450 km^2) has three municipalities, (San Carlos, Sabalo-El Castillo and San Juan Norte) and is located in the Southeast corner of the region. The Indio Maiz Biological Reserve covers 47% of the Río San Juan region. Seventy per cent of the San Juan region is covered by forest. The rest is dedicated to agriculture and cattle raising activities. Incipient tourism, mostly based on visitors from Costa Rica, focused in sport fishing, is becoming a significant source of income in the region. Río San Juan has 1 bank, 1 storage facility for agricultural products, 1 port, 1 fixed sawmill, 1 processing plant for African Palm, and a communication system.

29. The following paragraphs briefly describe the four main natural resource sectors in the region (forestry, fishery, mines, and agriculture) and discuss example of the issues at stake between the different resource users.

Forestry

30. There are 14 wood processing industries in the region. Three of them supply local markets, while 11 export all their production. Of these industries, seven 7 are located in Puerto Cabezas. Twenty-one sawmills supply these industries. Six of these sawmills are fixed (3 in RAAN, 2 in RAAS, and 1 in Río San Juan) while 15 are mobile and used mainly in the RAAN. Between January 1995 and June 1996 wood exports produced US$941,915. There are three large concessions: SOLCARSA (62,000 ha. of broadleaf forest in RAAN), MADENSA, and PROFOSA (41,700 ha in RAAS). By 1996 smaller concessions were authorized for 33,611 ha. A conservative estimate for MARENA indicates that 52,300 m^3 was to be extracted in 1996.

31. Land tenure is as yet undefined in an important percentage of the Atlantic region. MARENA and the Regional Governments authorize forestry concessions in public lands, while the process for authorizing concessions in indigenous lands is not clearly defined. Nevertheless, MARENA has authorized some forestry concessions on land of undefined

tenure, which has ignited confrontations between the three stakeholders. Furthermore, the regional governments have an incentive for the land to be declared public, because a percentage from concession permits is Regional Government's most important source of income. Therefore indigenous organizations have claimed that the Regional Governments do not represent them with regard to forestry management and land demarcation. This issue escalated to a high level when an indigenous group submitted a claim before the Human Rights Commission of the Organization of American States in respect of a forestry concession granted on what they claim are their lands. In August 1996, the National Assembly declared a halt to all new concessions until appropriate sectoral legislation was enacted.

32. In some cases, at the local level, *mestizos* have recognized the historic right of the indigenous communities by paying them a small fee for the use of the forest (Box 8.1) .

Box 8.1. Local Solutions to Conflicts over Forestry Rights

Some small scale *mestizo* loggers from Chontales pay the Mayagna community of Karawala a small fee per tree. The Miskito community of Tapapauni has different fees based on quality of the wood. Normally the fees are negotiated based on the quantity. The logging can vary from 1 to 50 trees. Many of these loggers request their permit only from the indigenous communities, and do not request permits from MARENA's regional office. In contrast, the loggers that obtained an "official" permit tend to ignore indigenous traditional rights or historic practices.

Fisheries

33. Most of the fish processing industries are located in RAAS (Table 8.6). Within Nicaragua, 95% of the total lobster capture comes from the Atlantic region. Within the Atlantic region, 88% of the shrimp is captured and processed by OCEANIC.

34. Miskito communities around Pearl Lagoon and along the Waspuk River practice small scale fishery. For example, Tapapauni, the Miskito capital, has two strong cooperatives of small scale fishermen. Some of the Miskito communities around Pearl Lagoon claim that their historic rights cover also aquatic resources, so they have been known to drive off commercial fishermen from non-local mestizo or indigenous communities.

Table 8.6. Employment Generated by Fish Industry

Name of Industry	Location	Employment
Pesca Fresca	Bluefields	100
OCEANIC	Bluff	725
Blue Pesca	Bluefields	200
Central American Ficher	Corn Island	100
La Bocana	Bluefields	100
Pananica	Bluefields	100
Bluefields Seafood	Bluefields	100
TOTAL		1,425

Mines

35. The three rivers (Bambana, Pis-pis, and Kukalaya) along which the most important Mayagna Communities are settled (including Muzawas, Españolina, Mukwas, El Dos, and Wasakin) are contaminated by mercury and cyanide, which are directly disposed in the river by the up-stream industrial and small scale gold mining activities in Rosita and Bonanza (predominantly mestizo communities). When consulted about their priorities, most of the Mayagna communities identified decontamination of their rivers as their first priority.

36. According to official sources, in 1995 Nicaragua produced 42,500 onz/troy of gold (a 26% increase from 1994) and 38.000 onz/troy of silver (a 50% decrease from the previous year). The Atlantic region produces 14% of the country's gold production and 66% of the silver production, although mine companies expect to produce around 200,000 onz/troy (around US$70 Million) in the near future. Mining companies have requested over 3,200,000 ha for exploration and exploitation.

37. The most important industry in the Atlantic is HEMCO NIC, which in 1996 produced 56% of the country's silver and 14% of the country's gold. It is estimated that gold from this industry produced around US$280,000 monthly. HEMCO absorbs 64% (1,488) of the total population employed by the mining industry in the Atlantic. There are also more than 3,500 small scale gold miners. Most of the employees of the mining

industry are mestizo, although the environmental impact of the mining industry affects mainly Mayagna communities.

Agriculture and Cattle Ranching

38. Most of the rice, bean, and corn production is for regional consumption. The main producers of rice are RAAN (2,565 kg/ha) and Jinotega (1,584 kg/h). RAAN surpasses national indicators of (2,112 kg/ha). The municipalities of Waspan, Siuna, Aspan and Prinzapolka are the main rice producers. All except Siuna use very traditional technologies for rice production. Similarly to the rice, beans are produced in Prinzapolka, Waspan with traditional technologies, while Rama and Nueva Guinea utilize improved inputs in bean growing. Exportable products are African Palm, Sugar Cane and coffee. African Palm is produced in Sabalo-El Castillo (Rio San Juan) and in Kukra Hill (RAAS), which also supplies sugar to Pacific Region. Coffee production in RAAN and Jinotega accounts for 13% of the coffee exported nationally. Agricultural processing industries have little importance in the region, with the modest exception of an African Palm plant and a sugar processing plant. The economic relevance of cattle ranching for the region as a whole is modest. *Mestizos* are responsible for extensive cattle ranching. Many indigenous communities own a few heads that remain in the same living area as the community or are kept in a community area away from their houses.

Land Titling

39. Between 1992 and 1996, 236,201 ha were titled in 6,351 individual titles to *mestizos*, while 224,543 ha were titled to indigenous communities in both communal and individual titles. The titles adjudicated to *mestizos* are agrarian reform titles, which subject the use of these areas to agriculture. Table 8.7 presents the distribution of these titles.

Brief Description of Social Aspects

40. Most of the communities visited during the Cerro Silva/Wawashan study are formed by 10 to 75 families each, with four larger settlements of over 400 families. A typical family has 6 to 8 members. The population density ranges from 4 to 8.8 inhabitants per km^2. Around a third of the total mestizo population in the region is younger than 10 years old. The total female population is slightly larger than the male population, although very few families are headed by women.

41. The average illiteracy rate of the visited regions is estimated to be about 35% for adults. The areas with the least access to education facilities are Patch River and Kukra River. Most of the communities have an elementary school. In many of them only the first three years of elementary school are available. There is only one teacher per 60 children.

42. Reliable statistics on health and education of the recently founded mestizo communities are not available. However, field visits identified respiratory, gastrointestinal

and infectious diseases (malaria and dengue) as the most common causes of morbidity and mortality. Cholera outbreaks are occasionally reported.

Table 8.7. Adjudicated Titles in Atlantic Region between 1992 and 1996

Region	No. of Titles	Area (ha)	Benef. (Total)	Benef. (by Gender)		Origin of Immigrants[a]					
				M	F	Ex-rn	Repat	E.p.s.	Mingo	Prec.	Colono
Río San Juan	3,115	122,731	4,070	2,765	1,305	425	117	105	4	4	3,415
Nueva Guinea	1,352	76,266	2,706	1,518	1,188	143	15	0	1		2547
RAAN	346	51,618	1,079	924	155	395	65	259	125		235
RAAS	1538	86,815	2,483	1,538	945	583	189	38	20		1606
TOTAL	6,351	337,430	10,338	6,745	3,593	1,546	386	402	150	4	7,803

Source: INRA
a. *Ex-rn = ex-contra; Rrepat = repatriates; E.p.s. = ex-sandinista; Mingo = former-police officer; Colono = settler.*

DESCRIPTION OF THE SOCIAL SITUATION IN THE CERRO SILVA/WAWASHAN REGION

43. Many of the communities visited in the northern part of RAAS have never seen a doctor. In the most remote communities of those regions, a midwife is usually the only health care provider. With the exception of Tortuguero and Patch River, health brigades periodically visit remote communities to provide services. Unfortunately, these visits can be as rare as once a year. In some communities of Kukra River, preventive medicine committees are active and health centers (though poorly equipped) are available.

44. The most cohesive organizations in the mestizo communities are Catholic and evangelic churches. Pastors and priests are usually spokespersons for the community, and religious services are often useful as decision-making and consultative community assemblies. There is at least one congregation per community. In areas of ex-contras and ex-Sandinistas, the former military authorities are still recognized as key leaders by the communities.

45. The other active and respected leaders are the coordinators of emergency committees, which are elected by the communities and have a presence in the larger settlements. In a few of the communities of the southeast, a development committee is periodically elected. A couple of cooperatives and unions were also identified. There is

virtually no local capacity to manage project funds, although all local leaders and representatives expressed their strong interest in learning how to do so.

46. While the majority of the Atlantic Mayors elected in the recent elections are *mestizos*, municipalities are not perceived as representative of these remote communities. Regional governments are seen to be as distant as the national government. National institutions have little or no presence in the region.

47. Even though there is an important number of donors in the Atlantic region (see Annex 10) few donors and NGOs have a presence in Cerro Silva/Wawashan region. Among those that do are ACNUR (financing cattle cooperatives), PRORAAS (financing schools and municipal buildings, and experimental crops), USAID (financing grain drier and selector in Bluefields), Ayuda Medica Cristiana (TA for paramedics and medicines), the Dutch Government (financing cooperatives of women pig farmers), FISE (schools and health posts), and FADANIC, which is the local NGO with the highest presence in the region (both north and southeast), and the one that communities trusted the most regarding management of funds.

Migration Patterns

48. Most immigrants followed the rivers to enter the region, especially the Grande de Matagalpa, Kuriwas, El Escondido, Patch River-Tortuguero, Kukra, and Indio Rivers. The study in the Wawashan/Cerro Silva Area identified a clear distinction between the northern RAAS and the southeastern RAAS. The migration patterns of the mestizo population of the southeast is significantly more aggressive than that of the northern RAAS. This situation is due to more convenient communication and transportation in the southeast. The three most aggressive pioneer fronts (Map 3) are:

(a) In the northern RAAS, the area of Tortuguero, with 23 *mestizo* communities (10,000 inhabitants) located along the Kurinwas river. These communities are advancing towards Cerro Wawashan from the north utilizing extensive cattle ranching practices.

(b) In the southeast, the area of Providencia-Atlanta, with 30 mestizo communities in buffer area and 14 communities inside the protected area Indio Maiz (20,507 inhabitants). This front is advancing towards the east of Cerro Silva and Southeast of Río Punta Gorda towards Indio Maiz Biological Reserve.

(c) Also in the southeast, the area of the Río Santa Cruz watershed, with 15 mestizo communities (3,658 inhabitants). This watershed is a boundary with the Indio Maiz Biological Reserve.

49. These three areas have been targeted by repatriation programs in the past five years. In the region of the Río Santa Cruz, communities are demanding 39 titles for 3137

ha, while 47 titles are being processed. In addition 77 titles for 4170 ha have been approved by INRA (INRA Titling Plans for 1996).

50. However, not all repatriation programs have resulted in massive depletion of natural resources. One positive example is the project La Aurora, in Kukra River, which was founded by a group of repatriates coming from Costa Rica. Each of the 150 families of the community received 50 ha and a participatory land management exercise identified areas for protection, forestry-use for community consumption only, and agricultural activities. The communities expressed their interest in conservation, agroforestry and reforestation projects and to continue managing their land as they have learned in the refugee camp in Costa Rica.

Economic and Productive Activities

51. The main economic activity for the visited mestizo communities is agriculture, as opposed to neighboring indigenous communities who focus their activities on hunting, fishing, and fruit collecting. Main consumption crops are grains (corn, beans, and rice), roots and rhizome crops (cassava, *malanga, and quequisque*)[2]. Women are usually responsible for these yard and subsistence crops; while men tend to be exclusively responsible for cattle, forestry, and some aspects of the planting cycle.

52. Men and boys clear and prepare land and men take produce to the market, negotiate prices, and collect the money. Women play an active role in harvest and post-harvest activities and decide on the amount for the family's consumption. About 60% of production is consumed by the communities, while the remaining 40% is transported to the nearest produce market, which sometimes is days away. The interviewed small farmers complained that poor transportation and storage facilities affect the success of their agriculture activities.

53. In the region of El Tortuguero, cattle raising is the predominant subsistence activity. In this region, women produce dairy products, raise small domestic animals and practice subsistence agriculture. There is not a single veterinarian in the region. Parasites, unidentified illnesses, and genetically damaged livestock are common. Inhabitants of El Tortuguero practice aggressive extensive cattle ranching, which endangers the surrounding protected areas. Access to credit is non-existent. Technical assistance for forestry and agroforestry, with the exception of sporadic assistance from a few donors, is infrequent.

54. There is one sawmill in La Cruz the Rio Grande, two rice processing facilities in La Cruz de Rio Grande and in El Tortuguero, and one forestry company in Santa Cruz. The field study did not identify any storage or processing facility, nor establishments that sell agricultural inputs.

[2] The social assessment documented crop cycles and practices per product in each of the six regions.

Examples of Natural Resources use

55. Most of the interviewed population was not concerned with the depletion of forests and pollution of their rivers. Forestry resources of the region are frequently wasted, or at most underutilized, by mestizo communities. As mestizo immigrants clear an area for planting or cattle raising, only exceptionally do they sell thick pieces of precious wood. Most of the forest wood is used for construction, posts, firewood and charcoal. The interviewed communities explained that the lack of an appropriate sawmill and lack of transportation facilities lowers the value of forestry resources. Many of the communities stated that most of the trees that had been torn down by Hurricane Joan in 1988 were never utilized. Strikingly, some of the region's poorest rural houses are made of the most precious woods.

56. Nevertheless, some of the natural resources of the region are utilized. For example, most of the region's mestizo women utilize a wide range of herbs with medicinal purposes (Box 8.3).

57. For consumption, many of the mestizo communities of the northern RAAS areas occasionally hunt deer, wild pigs, rabbit, and iguana, despite a strong preference for livestock (which is also seen as an indicator of social status).

Box 8.3. Use of Medicinal Herbs

Mestizo women from the area of Cerro Silva/Wawashan utilize herbs with medicinal purposes. Among those are the following:

Nopal for inflammation	Lemon Grass for flu
Guanabana for parasites	*Grosul* for cough
Sabila for kidney diseases	*Cabello de Angel* for hemorrhage
Achiote for indigestion	*Clerarena* for poison snake bites

58. All the mestizo communities in the Atlantic live near a river or watershed. The rivers provide mestizo communities with their most important transportation means, as well as irrigation and occasional fishing. But they also utilize rivers to dispose of solid waste and dead animals. Less than half of the inhabitants of the visited communities have and use latrines. Two communities reported using poison to kill fish. Most of them complained of an increase in floods during the rainy season.

Key Investments Identified

59. Priorities varied in each region. Most of the key investments identified by the communities are eligible to be financed by the Rural Municipalities Project. The identified priorities are also being taken into account during the elaboration of eligibility criteria for the GEF-financed subprojects (to be included in the Operational Manual). They also of

course will greatly influence all supply-driven investments in these communities. In general, key actions identified by all communities were[3]:

(a) Training in forestry, nurseries, reforestation of river banks;

(b) Training in fertilizers, "green" fertilization techniques, improved pastures;

(c) Construction of latrines and wells;

(d) Construction and/or improvement of school infrastructure and furniture;

(e) Construction and maintenance of health services; and

(f) Repair and construction of rural roads and bridges.

60. In terms of what individuals identified as productive investments, priorities varied per gender. Women tend to request assistance for improving yard and subsistence agriculture, medicinal herb gardens, and domestic animals. Some women in larger communities requested assistance to start sewing or baking microenterprises. Men tend to request assistance for production of grains, cattle ranching and logging. A few groups of women in the region have started small scale nurseries for reforestation. As the nurseries start to grow men tend to overtake the operation.

61. The Kukra River project Aurora, an agroforestry initiative, had positive results but was not continued. The population expressed their interest in sustainable use of forestry resources and conservation. In El Tortuguero, there is a pressing need to learn about intensive cattle ranching and other sources of income. Some of the inhabitants identified reforestation of river banks and water springs as a key project. In the area Providencia Atlanta, which is the entry of the National Park, few communities expressed interest in capturing income from tourism. This was also the case in communities along the Santa Cruz River. In Patch River and Escondido (Bluefields-Rama) the population lacks basic services, so they identified their priorities as: (a) latrines and water wells; (b) access to health providers; and (c) schools.

62. In La Cruz de Río Grande, communities identified the need to improve their sawmill and wood processing equipment. A group of small farmers have successfully started the production of cocoa with the traditional use of *Monilia*. Other farmers expressed their interest in learning and improving cocoa production.

63. Communities concur on poor communication means as a pressing problem to be resolved. During the rainy season, most of the communities remain incommunicado for weeks. Teachers, health brigades, and religious leaders are the most important communication links between communities. Because there is no radio station in the region,

[3] A detailed description of projects, with their activities, inputs and budgets, was produced during SA preparation and is available in project files.

many of the communities listen to two national radio stations, as well as Costa Rican, Honduran, and Colombian radio stations.

PARTICIPATION STRATEGY DURING PROJECT IMPLEMENTATION

64. Mestizo communities identified four key aspects that would foster their participation in the project: (a) access to information; (b) a role in the planning and decision-making process; (c) opportunity to access funds for projects that they identify as priorities, and (d) the opportunity to participate in the demarcation procedures of indigenous lands. The project design addresses these four aspects and includes a participatory activity to involve communities in the monitoring of biodiversity.

Information Sharing

65. It is widely recognized that access to information is key to informed and more effective participation of key stakeholders. During implementation, the project will continue financing promotion and dissemination to the general public and to targeted audiences at the national, regional, and local levels (see Annex 2). The content of this information will include the concept of the corridor, sector studies, and monitoring results which would promote stakeholder involvement in project implementation. The project will also finance follow up attitude surveys.

Participatory Planning and Decision-Making.

66. In depth mapping exercises completed during project preparation identified areas with various degrees of human intervention to estimate possible areas for technical assistance and investments. The ABC Project would finance participatory mapping exercises for the Corridor concept (see Annex 3). *Ad hoc* commissions where stakeholders will be represented will actively participate in the decision-making process for regional planning, PA management, and for demand-driven fund allocation. Mestizo stakeholders will be represented in the commissions by representatives of their development or emergency committees. At a local level, the related Rural Municipalities Project will finance participatory land use planning activities, and participatory municipal investment plans in the Atlantic region. Active participation in these exercises of women will be promoted.

Demand-Driven Investments in Priority Biodiversity Areas

67. The ABC Project will finance the cost of training community groups in addressing environmentally sound practices in sub-project preparation and preparation of conservation projects. The ABC Project will also finance *quid pro quo* projects to ensure conservation practices and pilot projects. Inclusion of private sector stakeholders will be promoted through information sharing and workshops on possibilities and advantages of partnerships for sustainable development. Development projects and community

strengthening, identified by municipal investment plans, would be financed by the related Rural Municipalities Project.

Demarcation of Protected Areas and Indigenous Lands.

68. Many mestizo communities have been living for decades in regions claimed by indigenous communities and protected areas. The project will finance travel costs and technical assistance for participation of representatives of these mestizo communities in any activities targeting resolution of land tenure conflicts.

Participatory Monitoring.

69. Local communities, NGOs, regional academic institutions, and the private sector will be actively involved in the ABC Biodiversity Monitoring System (Annex 3). All these stakeholders will have access to the processed information so they can make better decisions regarding the use of their natural resources.

ANNEX 9. PROJECT MONITORING AND EVALUATION PLAN

1. The objective of the project monitoring and evaluation plan is to provide the information necessary to assess project performance and impact, so corrective measures can be recommended and adopted and successful activities can be clearly identified and replicated. It is to be noted that this is distinct from the Corridor Monitoring Component (described in Annex 3) which aims to monitor the status of biodiversity in the Corridor itself (although the resulting data are also used as an input in determining the impact of the project).

2. The monitoring indicators to be used during project monitoring as well as information on how relevant data are to be collected were previously summarily described in the Project Design Summary in Annex 1. This same information, with additional details, is presented in Table 9-1. The project will be monitored and evaluated on the basis of:

(a) *Impact Indicators*: In Annex 1 these are the performance indicators at the level of the overall CAS and GEF objectives and at the level of the Project Development Objectives. These indicators serve to indicate whether the project contributes to a positive long-term impact at the level of broad development and conservation goals. Data for impact indicators are largely to be derived from the Corridor Monitoring Subcomponent of this project (described in Annex 3).

(b) *Output Indicators*: Output indicators measure the concrete results to be expected at the end of the project. In the table in Annex 1 and in Table 9-1 these are the monitoring indicators at the level of Project Outputs.

(c) *Input Indicators*: Finally, the input indicators are equivalent to the indicators in Annex 1 that are suggested at the level of Project Components or as input indicators in Table 9-1. These indicators serve essentially to measure that project activities and project disbursements are taking place as planned under the project without regard to their actual impact in terms of project outputs or development objectives.

3. Biannual project monitoring reports will be issued on June 30 and December 31 of each year. Each of the biannual reports to be prepared by the PIU will include, as a minimum:

Table 9-1. Key Input, Output, and Impact Monitoring Indicators

Key Input and Output Indicators	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Source of Data
Public Communication and Education							
INPUT INDICATORS							
International Promotion Program							
• Articles on the ABC in international publications			2	4		10	PIU records
National Promotion Program							
• TV media campaign designed and implemented		Design	Impl.	Impl.	Impl.	N/A	
• National ABC Conferences	1		1		1	3	PIU records
Atlantic Region Promotion Program							
• Two promotion campaigns in local languages in RAAS	Design	1	1			2	PIU records; regional government records
• Two promotion campaigns in local languages in RAAN		Design	1	1		2	PIU records; regional government records
OUTPUT INDICATORS							
• Knowledge about ABC by key decision-makers			40%		60%	60%	Attitude surveys in years 1 (baseline data), 3, and 5
• Knowledge about ABC by regional population			20%		35%	35%	Attitude surveys in years 1 (baseline data), 3, and 5
• Knowledge about ABC by primary school teachers nationally			10%		20%	20%	Attitude surveys in years 1 (baseline data), 3, and 5
• Generation of additional donor support (in $US millions)			$ 3 m.	$3 m.	$6 m.	$12 m.	PIU records; consultations with donor community
Planning and Monitoring							
INPUT INDICATORS							
Corridor Planning							
• Corridor/land use map of Atlantic published and disseminated		1				1	PIU records
• Updates of map published and disseminated			1		1	2	PIU records
International Donors Coordination							
• Donor meetings with 80% participation of major donors	2	2	2	2	2	10	PIU and regional government records
Corridor Monitoring							
• Forest cover change detection exercises	1		1		1	3	PIU records
• Baseline data and year 4 data on key indicator spp. in 5 areas	Data			Data		N/A	PIU records

Key Input and Output Indicators	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Source of Data
OUTPUT INDICATORS							
• Major planning tools of RAAN and RAAS reflect ABC					2	2	Regional government records
• New donor-financed projects linked to Corridor				2	2	4	Regional government records
• GoN ministerial planning units reflecting ABC in planning tools			2	2		4	PIU records and of General Directorate of Environment
• Local-level plans reflecting ABC in their formulation			10		10	20	PIU and regional government records
• Monitoring reports with quantitative data on forests and ind. spp.			1		1	2	PIU records; review of monitoring reports
Priority Biodiversity Areas							
INPUT INDICATORS							
Protected Area Investments							
• Management plans produced for Cerro Silva and Wawashan			2			2	MARENA records
• km demarcated participatively with local communities			20	20	10	50	MARENA records
• Training workshops in PA management			5	10	10	25	MARENA records
Sustainable Use Subprojects							
• Demand-driven biodiversity friendly projects implemented			10	20	20	50	PIU and Ad Hoc Committee records
• Demonstration projects			2	4	4	10	PIU and Ad Hoc Committee records
OUTPUT INDICATORS							
Reduced "pull" at agr. frontier though better protection of PAs							
• PA mgmt. plans under active and participatory implementation				2		2	MARENA Protected Areas Division records
• Invasions systematically recorded and appropriately reported			Yes	Yes	Yes	N/A	MARENA Protected Areas Division records
• Number of invasions declining in C.S./Wawashan			Yes	Yes	Yes	N/A	MARENA Protected Areas Division records
Reduced "push" at frontier from better land use practices							
• Increase in households applying appropriate practices					15%	15%	Attitude surveys
Indigenous Communities Development							
INPUT INDICATORS							

Key Input and Output Indicators	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Source of Data
Institutional Strengthening and Training							
• Training seminars		4	8	8		20	PIU records and regional government records
Demarcation Activities							
• Training events for communities in demarcation	10	15	15			40	PIU records and regional government records
• Demarcation proposals received from communities			5			5	PIU records and regional government records
• Conflict resolution workshops		2	3			5	PIU records and regional government records
OUTPUT INDICATORS							
Reduced "pull" at frontier from progress in indig. tenure resolution							
• Meetings of Demarcation Commission	1	2	2	2	2	9	Demarcation Commission records
• Proportion of communities undergoing legalization of tenure				Half	Half	Half	PIU and regional government records
Impact Indicators of Overall Project							
• Rates of habitat conversion in high priority areas	Baseline		Decline		Decline	Decline	Remote image data (Monitoring Subcomponent)
• Population dynamics of key indicator species	Baseline				Natural variation		Monitoring Subcomponent data

(a) Status of the Atlantic Biodiversity Corridor: The report would present the most important conclusions of the findings of the Corridor Monitoring System.

(b) A summary of project implementation: The report would include an overall assessment of project progress, advances, and bottlenecks according to the annual operating plan and any new developments that may affect project performance and recommendations.

(c) Local and central government activities: The report would clearly differentiate between activities at the national and at the local level. In terms of investments, it should differentiate by gender and by ethnicity.

(d) A summary of activities focused on indigenous communities: Because of the importance of indigenous stakeholders, the report would include main results, findings, and new circumstances that may affect project performance.

(e) Indicators: The report would present updated tables of the indicators presented in Table 9-1 and an explanation or comments if targets are not met.

(f) Status of Legal Covenants: The report would also include an annex with a summary of compliance with the Project's legal covenants as established in the project's legal documents.

EVALUATION

4. The information collected and analyzed by the Corridor's Monitoring Component will serve as a technical input to evaluate the project's impact. Additionally, and consistent with the Rural Municipalities Project, the project will finance various surveys and studies that would provide feedback to improve project implementation. Draft TORs for these surveys and studies will be included in the Operational Manual.

5. As a minimum the project would finance the following instruments to evaluate the project:

(a) Status of Natural Resources in Corridor Region. Through one of its components the project will finance a Corridor Monitoring System, detailed in Annex 3. The system will include analysis of remote sensing data; base-line studies and monitoring of key biodiversity indicator species; strengthening of capacity to conduct and interpret these studies; and distribution of the results of these studies to key stakeholders. It is expected that the regional UNDP-implemented Mesoamerican Biological Corridor Project will also support the collection of useful data.

(b) Attitude Surveys. An attitude survey will be completed three times during project implementation, a baseline survey, at mid-term, and at completion of the project. This survey will evaluate people's attitudes towards the Corridor as an impact indicator of the Public Communication and Education Component, and as an estimate for future public support for the Corridor. The survey will target a statistically significant sample nationally and in the Atlantic, and would conduct questionnaires in indigenous languages. Results will be disaggregated by gender, ethnicity, and other significant groups. MARENA's PIU, in coordination with the regional governments will prepare detailed TORs for this survey (to be included in the Operational Manual).

(c) Annual Review. The PIU will produce an annual review to evaluate the success of the project. This study will disaggregate the information relevant to the Atlantic Region, by gender and by ethnic community. The study would analyze the following aspects: (i) beneficiary participation in the selection process; (ii) physical design adequacy, unitary costs, and efficiency of procurement procedures; (iii) targeting of subproject benefits; and (iv) evaluation of sustainability, effective use, and replicability of the investments after their physical implementation, particularly in terms of capacity building. In year 3 of the project a more detailed Mid-Term Review will replace the annual review; arrangements for a Mid-Term Review will be worked out at a later date in collaboration with World Bank supervision missions.

(d) Implementation Completion Report. Finally, at the conclusion of the project, MARENA and the World Bank will collaborate on the production of a Project Implementation Completion Report in accordance with procedures that will be in place at that time.

ANNEX 10. INCREMENTAL COSTS AND GLOBAL ENVIRONMENTAL BENEFITS

CONTEXT AND BROAD DEVELOPMENT GOALS

1. The deteriorating condition of Nicaragua's natural resources is both a cause and a consequence of extreme rural poverty. Insufficient investments in heavily populated rural areas of the Pacific region is a factor underlying increasing migration to areas unsuitable for agriculture and the expanding agriculture frontier on the Atlantic slopes. High rates of population growth and an estimated 250,000 demobilized combatants add to these pressures. Limited public sector capacity to oversee and control natural resource use, and private sector pressure to securing logging, mining, and fishing concessions are additional factors contributing to unsustainable exploitation of natural resources. In the absence of a concerted effort to address these underlying threats, it is likely that degradation and mining of the Atlantic resources would accelerate in future.

2. Recognizing the seriousness of the situation, the Government of Nicaragua (GoN) has begun to consider natural resource degradation problems in a systematic way, in an effort to develop a national strategy for the environment. TFAP, NEAP, and BAP exercises have contributed to the identification of the following priorities for investment and institutional development: (i) soil conservation, water resource management, and sustainable forestry; (ii) decentralization of natural resource management to the municipal level; (iii) reform of the policy and legal framework, including institutional strengthening (of the environment ministry, the National Assembly, the judiciary); and (iv) enabling local communities to participate in and benefit from natural resource use and public investments. Promoting sustainable natural resource use in the Pacific Western Region and conserving a biological corridor in the Atlantic Region are top national priorities within this overall framework.

BASELINE SCENARIO

3. In the absence of GEF assistance for addressing global biodiversity objectives, it is expected that the Government of Nicaragua would concentrate its scarce development resources on natural resource management programs that would generate national benefits for the poor inhabitants of the Pacific region (estimated cost: US$ 31.7 million). Biodiversity conservation and rural development programs for specific sites in the Atlantic slope, initiated with donor support, would continue (estimated cost: US$ 25.3 million). Under the baseline scenario, it is also expected that the Government would implement policy reforms aimed at integrating environmental and biodiversity concerns into the legal

framework, and would undertake programs aimed at strengthening public sector capacity to implement environmentally sustainable development programs (estimated cost: US$ 4.5 million). The combined cost of the baseline scenario (Pacific slope investments, Atlantic biodiversity conservation and rural development programs, and policy and institutional reforms) is estimated at US$ 61.5 million equivalent.

4. Under this baseline scenario, it is expected that incomes in the Pacific region would increase and the rate of advance of the agricultural frontier into the Atlantic slope would begin to slow down, due to the investments in the Pacific region and improvements in the legal and policy framework. Encroachment, illegal logging and degradation of biodiversity in the protected areas of Bosawas and Indio Maiz would come under better control, due to donor-supported conservation projects. However, the long term integrity and sustainable use of natural resources within a biodiversity corridor would not be ensured under the baseline scenario because:

(a) about half of the protected areas (about 1.3 million ha) included in the proposed ABC do not receive any kind of support;

(b) there are no incentives for biodiversity conservation and sustainable use in non-protected areas included in the ABC;

(c) there is lack of knowledge and incentives at the level of communities, and local and regional governments on the global importance of biodiversity resources and on how to use them wisely;

(d) there is no overall coherent land use and natural resource conservation strategy for the Atlantic region within which conservation projects and investment programs of line agencies are designed and implemented; and

(e) a monitoring and evaluation system for natural resources and biodiversity and threats is lacking, making it impossible for Nicaragua to manage those threats effectively.

GLOBAL ENVIRONMENTAL OBJECTIVE

5. The global environmental objective is to promote the long-term integrity of a biological corridor along the Atlantic slope of Nicaragua, conserving key global biodiversity values. The Atlantic slope of Nicaragua is biologically an extremely rich area of lowland tropical rain forests, coastal wetlands, pine savannas, and higher altitude pine-oak forests. These ecoregions and ecosystems have high global importance on their own merits, but in addition, they form part of a critical link in a larger Mesoamerican Biological Corridor (MBC) linking North America, Central America, and South America. Parts of the Atlantic slope of Nicaragua represent the most intact natural areas remaining in Central America with still healthy populations of species such as harpy eagles and jaguars.

GEF ALTERNATIVE

6. With GEF assistance for addressing the global biodiversity objectives outlined above, the GoN would be able to undertake a more ambitious program that would generate both national and global benefits. The GEF Alternative would comprise the baseline scenario described earlier (rural municipality investments in the Pacific, on-going donor-supported conservation and rural development programs in the Atlantic, and policy and institutional reforms) as well as an expanded conservation and sustainable use program in the Atlantic slope explicitly designed to promote the integrity of the Atlantic Biological Corridor. This expanded project is the sum of complementary activities: the Rural Municipalities Project for the Atlantic region, the GEF project in the ABC, and the associated donors financing in the ABC. This expanded Atlantic Biological Corridor program would comprise six different activities: municipal development in the Atlantic [Total US$ 3.6 (IDA US$ 2.6, GoN US$ 1.0)], Natural Resources Policy Reform and Institutions for the Atlantic region [Total US$ 0.5 (IDA US$ 0.4, GoN US$ 0.09)], public communication and education for the ABC concept [Total US$ 1.11 million (GEF US$ 0.82 million, GoN US$ 0.09 million, Nordic Development Fund US$ 0.2 million)]; biodiversity planning and monitoring in the corridor [Total US$ 5.14 million (GEF US$ 1.5 million, GoN US$ 0.1, Nordic Development Fund US$ 3.3 million, CIDA US$ 0.2 million)]; priority biodiversity areas management [Total US$ 8.4 million (GEF US$ 3.5 million, GoN US$ 0.9 million, PROCODOFOR US$ 4.0 million)]; and indigenous communities development [Total US$ 2.5 million (GEF US$ 1.3, GoN US$ 0.2, PROCODOFOR US$ 1.0)]. The GEF Alternative will make possible activities and programs that would not have been possible under the baseline scenario, thus covering important gaps that threaten the integrity of the ABC. The combined cost of the GEF Alternative (baseline scenario plus Atlantic Biodiversity Corridor program) is estimated at US$ 82.7 million.

7. The ABC project would put in place a continuous system of protected and non-protected areas with incentives for biodiversity conservation and sustainable use (in non-protected areas) or under protected area management thus not only ensuring preservation of globally significant biodiversity but also the connection between key areas as a corridor concept. Implementation of the GEF Alternative would result in the following outcomes:

(a) minimizing threats to biodiversity by putting in place an overall plan and a monitoring, evaluation and mitigation system for land use and biodiversity conservation in the Atlantic developed in a participatory manner and with the consensus of key GoN agencies and donors and the support of local and regional governments, NGOs and community representatives, which would serve as the framework within which public investment programs for the region would be designed;

(b) raising awareness about biodiversity resources through environmental education and training of indigenous and non-indigenous communities, municipal and regional governments and GoN agencies on biodiversity use consistently with the plans;

(c) creating positive incentives for biodiversity conservation through a financial mechanism (fund) through which external resources would be channeled for financing biodiversity and natural resources subprojects in the Atlantic in a participatory manner and with ownership of local inhabitants;

(d) ensuring coordination among donor programs and that key gaps in biodiversity conservation are covered through appropriate governance and operational rules in the fund to be supported by GEF and donors;

(e) expanding the number of protected areas under active management by channeling resources to protected areas included in the ABC but which currently do not receive any support for their management, namely Cerro Silva and Wawashan;

(f) ensuring conservation of biodiversity within the ABC outside of protected areas by financing subprojects of communities for the sustainable use and conservation of biodiversity and by financing development projects of communities and local governments that are consistent with the ABC strategy.

8. GEF funds would be critical to leveraging additional donor cofinancing for this initiative, both from bilateral and multilateral sources.

INCREMENTAL COSTS

9. The difference in cost between the Baseline Scenario and the GEF Alternative is estimated at US$ 21.2 million. Of this amount, about US$ 14.1 million would generate national benefits from investments in social and economic infrastructure and sustainable productive activities in the Atlantic zone that would not have taken place under the Baseline Scenario. This results in an incremental cost of US$ 7.1 million for achieving global environmental benefits through the protection of the ABC.

ANNEX 11. BASELINE AND ASSOCIATED FINANCING

1. Since one of the conceptual premises of the GEF-financed Nicaragua Atlantic Biological Corridor (ABC) Project is to provide leadership and a model for sustainable land use planning in the Atlantic Region, it is by its very nature closely linked to and dependent on many other initiatives ongoing or planned in the Atlantic Region. Over the lifetime of the project, it is expected that the GEF Project will provide a framework around which will be built many other projects and investments. The Government of Nicaragua, through the current Minister of the Environment and through the personal interest of the President, Dr. Arnoldo Alemán (personally briefed on the project in May 1997), has indicated clearly that the concept of the ABC is to be thought of as the backbone of their planning strategy for the region. The two regional governments, RAAN and RAAS, have also endorsed the concept of the ABC as a regional planning tool.

2. The success of the project will thus in part be judged by a review of associated financing and cofinancing that will evolve around the Corridor over the next five years. During the short period of project preparation, considerable progress was achieved in first steps toward tighter linking of ongoing or planned initiatives in the Region with the ABC. This annex outlines in detail financing closely associated with the project. A great many other related initiatives are already under implementation in the Atlantic Region or are advanced in their preparation and although not formally linked to the GEF project, are considered by the Government of Nicaragua to be part of their emerging Corridor-based strategy for the Atlantic. This annex also provides a review of these other ongoing initiatives in the Region.

ASSOCIATED FINANCING FOR THE ABC PROJECT

3. The IDA-financed Rural Municipalities Project has been prepared together with the GEF-financed project as an integral package of investments designed to address root causes of natural resource degradation throughout Nicaragua and specifically to protect the Atlantic Biological Corridor. Although the entire IDA project can thus be considered as integrally linked to the GEF project, it is worth noting that a part of the IDA credit is disbursed through INIFOM and is concentrated on municipal development and another part is disbursed through MARENA and is concentrated on institutional strengthening of MARENA and other institutions with responsibility for natural resources, on addressing policy issues, and on direct support to the ABC. The MARENA-disbursed portion of the IDA project will be managed by the same administrative unit that will implement the GEF project and is thus particularly closely tied to the present GEF project.

4. Table 11.1 shows how the MARENA-managed and INIFOM-managed funds are related to the GEF project. It also shows Government of Nicaragua (GoN) counterpart funding and in kind funding to be provided by the beneficiaries of sustainable use subprojects.

5. Table 11.1 also shows $US8.7 million of associated financing, funds that have been promised for direct support to the ABC and which will be managed by the ABC Project Implementation Unit. Because the final details of these arrangements are currently being worked out, the term "associated financing" is used rather than "cofinancing". The $US8.7 million of support involves pledged support from three major donor countries:

(a) The Canadian government (through CIDA) and a private consulting firm, Tecsult, are together contributing approximately US$200,000 for producing a GIS strategy for MARENA. This proposal was worked out jointly with the ABC preparation team and is designed to provide a foundation for GIS work to be done under the ABC Project. The work is currently ongoing and is expected to end in mid-1998.

(b) The Dutch project PROCODOFOR is a package of investments directed at the Cerro Silva area (involving support for local communities, for indigenous communities, and for conservation investments). In preparation for several years, it involves a commitment of US$5.0 million. Originally to be implemented under the umbrella of the National Program for Rural Development (PNDR), a decision was reached in April 1997 to move the resources of the project to MARENA's control and specifically under the management of the ABC PIU.

(c) Finally, the Nordic Development Fund pledged in mid-1997 the equivalent of US$3.5 million for a soft loan to Nicaragua explicitly for support to the Atlantic Biological Corridor. Although final negotiations are still underway, a decision was reached in April 1997 by the GoN to proceed with a request for these already approved funds (disbursed under conditions similar to those of an IDA credit but closely tied to Nordic consultants and firms). These funds will be used to complement the ABC project as shown on Table 11-1.

6. Finally, it is worthy of note that discussions were advanced with several other donors, notably the Danish, and Canadian governments, to negotiate further parallel-financing arrangements to further assist with indigenous land demarcation and training of indigenous communities but these will likely only be finalized during the first year of the project.

Table 11.1. Estimated Cost of Corridor Initiative including Associated Financing

(US$ 000)

Total including Contingencies

COMPONENT Subcomponent	GEF	IDA MARENA-managed[b]	IDA INIFOM-managed	GoN[a, b]	Beneficiaries	Associated Financing (Canada, Holland, NDF)	TOTAL
MUNICIPAL DEVELOPMENT							
Institutional Development of Municipalities			3,138.6	2,689.2			5,827.8
Information, Participation, and Training			2,566.2	267.3			2,833.5
Community Subprojects in the Pacific			15,493.1	1,616.5	3947.7		21,057.3
Institutional Development of INIFOM			2891.7	377.9			3269.6
Subtotal MUNICIPAL DEVELOPMENT			*24,089.6*	*4,950.9*	*3947.7*		*32,988.2*
INSTITUTIONAL STRENGTHENING[c]							
MARENA-Managua		777.4		[b]			777.4
MARENA-Regional Delegations		318		[b]			318
Subtotal INST. STRENGTHENING (Partial)		*1,095.4*		[b]			*1,095.4*
INTER-INSTITUTIONAL STRENGTHENING[d]							
Support to Policy Development		554		[b]			554
Support to Regional Governments		272		[b]			272
Institutional Coordination		181.4		[b]			181.4
Technical Advisors on ABC		385		[b]			385
Creation/Support to National Env. Fund		372		[b]			372
Subtotal INTER-INST. STRENGTHENING (Partial)		*1,764.4*		[b]			*1,764.4*
PUBLIC COMMUNICATION AND EDUCATION							
International Promotion Program[e]	246.7			27.4		200[f]	474.1
National Promotion Program	379.4			42.2			421.6
Atlantic Region Promotion Program	194.2			21.6			215.8
Education and Communication Strategy		40[d]		[b]			40
Ecotourism Strategy		40[d]		[b]			40

COMPONENT Subcomponent	GEF	IDA		GoN[a, b]	Beneficiaries	Associated Financing (Canada, Holland, NDF)	TOTAL
		MARENA-managed[b]	INIFOM-managed				
Communication Program		100[d]		[b]			100
Subtotal PROMOTION AND DISSEMINATION	*820.3*	*180*		*91.2 +* [b]		*200*	*1,291.5*
PLANNING AND MONITORING							
Corridor Planning	531.9						531.9
International Donors Coordination	66			16.5			82.5
Ecosystems Map		210[c]		[b]			210
Sectoral Studies (mining, transport, etc.)		175[c]		[b]			175
Regional Development Studies						3,000[g]	3,000
Monitoring	780			40.7			820.7
Improvement of GIS Capability		130[c]		[b]		500[h]	630
Strengthening National NGOs		50[d]		[b]			50
Subtotal PLANNING AND MONITORING	*1,377.9*	*565*		*57.2 +* [b]		*3,500*	*5,500.1*
PRIORITY BIODIVERSITY AREAS							
Conservation of Protected Areas	2389.4			380.6			2,770
Cerro Silva Investments (PROCODOFOR)						4,000[i]	4,000
Sustainable Use	1,115.8			465.3	375[j]		1,956.1
Demand-driven Subprojects (IDA)			1,711.2	186	458.8		2,356
Subtotal PRIORITY BIODIVERSITY AREAS	*3,505.2*		*1,711.2*	*1,031.9*	*833.8*	*4,000*	*11,082.1*
INDIGENOUS COMMUNITIES							
Organizational Strengthening	242	150[d]					392
Reg. Gov., Dem. Com., Demarcation	1035.1			191.4 + [b]		1,000[i]	2,226.5
Subtotal INDIGENOUS COMMUNITIES	*1,277.1*	*150*		*191.4 +* [b]		*1,000*	*2,618.5*

PROJECT COORDINATION AND MANAGEMENT[k]							
Management Costs till 2001		1,017[c]		[b]			1,017
Management Costs for 2002 (Year 5 of GEF)	120			5			125
Subtotal PROJECT COORD. & MGMT.	*120*	*1,017*		*5 +* [b]			*1,142*
TOTAL PROJECT COSTS	**7,100.5**	**4,771.8**	**25,800.8**	**6,327.6**	**4,781.5**	**8,700**	**57,482.2**

Notes

a. Government of Nicaragua (GoN) financing includes contributions of the municipal governments and regional governments, where appropriate. MARENA-managed IDA funds include the GoN counterpart contribution.
b. Amounts under MARENA-managed portion of IDA credit include GoN counterpart financing and do not include contingency costs.
c. Some activities that are included under this IDA credit subcomponent are noted elsewhere in the table when the IDA financing is highly complementary to a GEF-financed activity.
d. Some activities that are included under this IDA credit subcomponent are noted elsewhere in the table when the IDA financing is highly complementary to a GEF-financed activity.
e. The International Promotion Program includes Program Design and Program Coordination and Management.
f. This amount is tentatively allocated from the Nordic Development Fund credit (currently under negotiation).
g. This amount is tentatively allocated from the Nordic Development Fund credit (currently under negotiation) since it is expected that the bulk of this Corridor-related credit will be used for financing corridor-compatible development strategies for the Atlantic. Other activities may also be eventually financed.
h. This amount includes approximately $200,000 of funding from the Canadian government and from the consulting firm Tecsult (proposal elaborated as specific cofinancing for the Corridor) for elaboration of a GIS strategy for MARENA. It also includes approximately $300,000 which would be allocated from the Nordic Development Fund credit for a variety of GIS and monitoring expenses.
i. The amount of $5,000,000 is for the Dutch-financed PROCODOFOR project. Bringing this project under the control of the Atlantic Biological Corridor Coordinating Unit in MARENA is currently being negotiated. These funds are all highly complementary to the GEF-financed project and will support a variety of investments in the Cerro Silva area of the Corridor. It is estimated that approximately $1,000,000 will be directly complementary to the GEF investments in indigenous communities with the remainder being used for various activities that are best subsumed under the heading of Priority Biodiversity Areas.
j. The amount of $375,000 is based on an assumption of 25% in kind cofinancing by beneficiaries.
k. The amounts for project coordination refer only to coordination of the GEF project and the MARENA-implemented portion of the IDA credit. Project management costs for the INIFOM-managed investments are included elsewhere.

BASELINE FINANCING IN THE ATLANTIC REGION

7. Table 11.2 shows the principal donor-financed projects that are currently underway or planned in the Atlantic Region of Nicaragua and which are strongly complementary to one or more aspects of the GEF-financed ABC project. During the preparation of the project, there was an extensive dialogue between the GoN, the donors, and the World Bank in order to ensure complementarity between the various initiatives. The GEF project even includes financial support to the regional governments in order for them to organize workshops and seminars with the donors in order for key regional stakeholders to have a greater say in ongoing and planned development projects in the region.

Table 11.2. Basline Donor-financed Projects in the Atlantic Region

Organismo donante	Nombre del Proyecto	Ubicación geográfica	Objetivos del Proyecto	Componentes (actividad)	Período de ejecución	Monto	Contraparte nacional
BID	POSAF (Programa socioambiental y desarrollo forestal)	9 Cuencas y zonas del país (incluye Waspán en RAAN)	Manejo de recursos naturales. Mejorar marco institucional	Manejo de recursos naturales Areas protegidas Marco Institucional	1997-2001	USD 24.4 millones BID 15.3 FND 5.0 ASDI 1.0 Local 3.1	Local 3.1
DANIDA	Proyecto Manejo sostenible de la zona amortigua-miento de la municipalidad de El Castillo	Municipalidad de El Castillo, Río San Juan	Estabilizar los asentamientos Mejorar el nivel de vida Uso sostenible de recursos naturales Proteger la gran reserva Indio-maíz	Planificación territorial Ordenamiento y titulación Manejo forestal Producción agroforestal Educación ambiental y capacitación Desarrollo comunitario Infraestructura	Abril 95-junio 97 (Se espera prolongación)	U$ 3,000.000	MARENA INRA Fundación del Río, Municipalidad El Castillo
USAID	Manejo de reserva BOSAWAS	Reserva BOSAWAS (RAAN)	Proteger los recursos biológicos y humanos en la reserva BOSAWAS	Protección, titulación, manejo, desarrollo institucional, ONGs indígenas	1993-1997	U$ 2.5 millones	MARENA / SETAB
CANADA	Agua potable, educación, desarrollo comunitario, medio ambiente	RAAS RAAN	Alivio a la pobreza	Capacitación Educación ambiental Asistencia técnica Fortalecimiento institucional Apoyo inversión privada	1997-2000	Agua: U$ 12 mill Fort. Inst. U$ 1 mill Varios proyectos U$ 300,000 a 400,000 anual	Alcaldías y ONGs locales
USAID/Guatemala. Programas C.A.	PROARCA Programa Ambiental Regional para C.A.	Puerto Cabezas (RAAN)	Aumentar el entendimiento de aspectos im-portantes en el manejo costero integrado Desarrollar e implementar	PROARCA: Areas protegidas (capas) Manejo costero-marino	5 años	PROARA regional U$ 25 millones PROARCA/C	Regional: CCAD Nacional: MARENA

Organismo donante	Nombre del Proyecto	Ubicación geográfica	Objetivos del Proyecto	Componentes (actividad)	Período de ejecución	Monto	Contraparte nacional
	PROARCA/COSTAS		prácticas mejo-radas de mane-jo de recursos naturales y actividades económicas Intercambio de herramientas, metodologías e información efectiva para el manejo costero integrado Fortalecimien-to a organiza-ciones locales Mejorar políticas locales/IMP	(costas) Protección ambiental		OSTAS: U$ 5.9 millones	Local: Mikupia
ASDI Agencia Sueca para el Desarrollo Internacional	Programa de apo-yo institucional a los concejos re-gionales y admi-nistraciones regionales de la Costa Atlántica	Región autónoma Atlántico Norte (RAAN), Región Autónoma Atlántico Sur (RAAS)	Contribuir con el proceso democrático y desarrollo económico social de las regiones	Capacitación Asesoría Infraestructura física	4 años (1997-2000)	U$ 2,631,100	Concejos Regionales Autónomos RAAN, RAAS
ASDI/Agencia Sueca para el Desarrollo Internacional	ADFOREST Fortalecimien-to Institucional de MARENA en la RAAN y RAAS	RAAN y RAAS	ADFOREST Apoyar en deli-mitación y titu-lación de tierras comunales Administrar bosque estatal Fortalecimiento Institucional de MARENA en la Costa Atlántica Reforzar nivel municipal en control y segui-miento del uso de los recursos naturales	ADFOREST: Asistencia técnica y logística a nivel comunal. Fortalecimiento institucional de MARENA. Creación de comisiones de Recursos naturales a nivel municipal. Apoyo logístico			MARENA
Cooperación Austríaca	Desarrollo integral manejo del bosque. Aserrío "Boca de sábalos". Diversificación de	Río San Juan	Aprovecha-miento forestal sostenible Extracción alternativa con campesinos Transformación primaria de		1997 →	U$ 650,000 U$ 60,000 U$ 650,000 U$ 440,000	Asociación de Productores de "Boca de Sábalo" FENACOOP

Organismo donante	Nombre del Proyecto	Ubicación geográfica	Objetivos del Proyecto	Componentes (actividad)	Período de ejecución	Monto	Contraparte nacional
	la producción agrícola. Palma africana		la madera Manejo sostenible del suelo **Manejo y apro-vechamiento** de la palma Organización (fortalecimiento técnico-adminstrativo)				
COSUDE CATIE	TRANSFORMA	Río San Juan	Transferencia de conocimientos a MBN	Red de cooperación horizontal. Areas demostrativas Capacitación /extensión Materiales de capacitación / extensión	1a. fase (4 años)	U$ 2,400.000	MARENA
Unión Europea	Desarrollo sostenible en áreas de frontera agrícola	Area piloto: Si a Paz BOSAWAS (RAAN)	Frenar avances de la frontera agrícola	Políticas regionales, Desarrollo local	08-05-1996 08-05-2000	EWS 2,270.230	MARENA
Holanda	PRORAAS II	Municipios: Tortuguero, Cruz de Río Grande, Desembocadura y Laguna de Perlas (RAAS)	Frenar frontera agrícola Transformación cultura productiva en la economía campesina Fortalecimiento Institucional a nivel municipal	Validación tecnológica Capacitación organización Mercadeo	1a. etapa 1997-2000	1a. etapa 3 millones	MAS (Ministerio de Acción Social) Gobierno Regional
GTZ (Cooperación Técnica del Gobierno de Alemania)	BOSAWAS MARENA / GTZ Si a Paz MARENA / GTZ (a partir de 09/97 prev.)	Bonanza (RAAN) Nueva Guinea (RAAS)	Contribuir a la conservación y el manejo sostenible de los recursos naturales Apoyar a las minorías étnicas de asegurar su espacio de vida Contribuir a la conservación y al manejo racional de los recursos naturales	Elaborar para la reserva estrategias y conceptos e iniciar su implementación. Apoyar en el desarrollo de actividades productivas en el uso de la tierra para contribuir a la sostenibilidad del uso.	Fase de Orientación: 1995-1997 **Fase de** Ejecución: 1997-2001 Perspectivas hasta 2012 Se pretende iniciarlo en septiembre de 1997	U$ 10 millones 1995-2001 por parte **de Alemania** U$ 4 millones año 1997-2000	1 y 2. MARENA / SETAB

ANNEX 12. SUMMARY COST TABLES

GEF and GoN Financing only

NICARAGUA
Atlantic Biodiversity Corridor
Components Project Cost Summary

	(Córdoba '000)			(US$ '000)			% Foreign	% Total Base
	Local	Foreign	Total	Local	Foreign	Total	Exchang	Costs
A. PUBLIC COMMUNICATION AND EDUCATION								
1. International Level Program	2,286.0	67.5	2,353.5	254.0	7.5	261.5	3	3
2. National Level Program	3,688.7	59.9	3,748.5	409.9	6.7	416.5	2	5
3. Local Level Program	1,392.8	441.0	1,833.8	154.8	49.0	203.8	24	3
Subtotal PUBLIC COMMUNICATION AND EDUCATI	7,367.4	568.4	7,935.8	818.6	63.2	881.8	7	11
B. PLANNING AND MONITORING								
1. Corridor Planning	4,351.5	351.0	4,702.5	483.5	39.0	522.5	7	7
2. International Donors Coordination	675.0	-	675.0	75.0	-	75.0	-	1
3. Monitoring	5,358.6	1,665.9	7,024.5	595.4	185.1	780.5	24	10
Subtotal PLANNING AND MONITORING	10,385.1	2,016.9	12,402.0	1,153.9	224.1	1,378.0	16	17
C. PRIORITY BIODIVERSITY AREAS								
1. Conservation of Protected Areas	21,371.2	2,862.2	24,233.4	2,374.6	318.0	2,692.6	12	34
2. Sustainable Use	14,229.0	-	14,229.0	1,581.0	-	1,581.0	-	20
Subtotal PRIORITY BIODIVERSITY AREAS	35,600.2	2,862.2	38,462.4	3,955.6	318.0	4,273.6	7	53
D. INDIGENUOS COMMUNITIES								
1. Organizational Strengthening	1,980.0	-	1,980.0	220.0	-	220.0	-	3
2. Land Demarcation	10,035.0	-	10,035.0	1,115.0	-	1,115.0	-	14
Subtotal INDIGENUOS COMMUNITIES	12,015.0	-	12,015.0	1,335.0	-	1,335.0	-	17
E. TECHNICAL COORDINATION UNIT	1,125.0	-	1,125.0	125.0	-	125.0	-	2
Total BASELINE COSTS	66,492.7	5,447.5	71,940.2	7,388.1	605.3	7,993.4	8	100
Physical Contingencies	2,763.6	182.8	2,946.4	307.1	20.3	327.4	6	4
Price Contingencies	-	-	-	-	-	-	-	-
Total PROJECT COSTS	69,256.3	5,630.2	74,886.5	7,695.1	625.6	8,320.7	8	104

NICARAGUA
Atlantic Biodiversity Corridor
Expenditure Accounts Project Cost Summary

	(Córdoba '000)			(US$ '000)			% Foreign	% Total Base
	Local	Foreign	Total	Local	Foreign	Total	Exchang	Costs
I. Investment Costs								
A. Civil Works	3,555.0	-	3,555.0	395.0	-	395.0	-	5
B. Machinary & Equipment	351.0	1,989.0	2,340.0	39.0	221.0	260.0	85	3
C. Vehicles	138.4	784.1	922.5	15.4	87.1	102.5	85	1
D. Technical Assistance								
Internacional AT	-	2,173.5	2,173.5	-	241.5	241.5	100	3
Nacional AT	8,982.9	59.9	9,042.8	998.1	6.7	1,004.8	1	13
Subtotal Technical Assistance	8,982.9	2,233.4	11,216.3	998.1	248.2	1,246.3	20	16
E. Training & Studies	23,647.5	-	23,647.5	2,627.5	-	2,627.5	-	33
F. Materials	189.0	441.0	630.0	21.0	49.0	70.0	70	1
G. Subprojects	29,628.9	-	29,628.9	3,292.1	-	3,292.1	-	41
Total Investment Costs	66,492.7	5,447.5	71,940.2	7,388.1	605.3	7,993.4	8	100
II. Recurrent Costs								
Total BASELINE COSTS	66,492.7	5,447.5	71,940.2	7,388.1	605.3	7,993.4	8	100
Physical Contingencies	2,763.6	182.8	2,946.4	307.1	20.3	327.4	6	4
Price Contingencies	-	-	-	-	-	-	-	-
Total PROJECT COSTS	69,256.3	5,630.2	74,886.5	7,695.1	625.6	8,320.7	8	104

NICARAGUA
Atlantic Biodiversity Corridor
Expenditure Accounts by Components - Base Costs
(US$ '000)

	PUBLIC COMMUNICATION AND EDUCATION			PLANNING AND MONITORING			PRIORITY BIODIVERSITY AREAS	INDIGENUOS COMMUNITIES		TECHNICAL	Physical Contingencies		
	International Level Program	National Level Program	Local Level Progra	Corridor Planning	International Donors Coordination	Monitoring	Conservation of Protected Areas	Sustainable Use	Organizational Strengthening	Land Demarcatio	OORDINATION UNIT	Total	%	Amount
I. Investment Costs														
A. Civil Works	-	-	-	-	-	-	395.0	-	-	-	-	395.0	10.0	39.5
B. Machinary & Equipment	-	-	-	-	-	6.0	254.0	-	-	-	-	260.0	5.0	13.0
C. Vehicles	-	-	-	-	-	-	102.5	-	-	-	-	102.5	5.0	5.1
D. Technical Assistance														
Internacional AT	7.5	-	-	39.0	-	180.0	15.0	-	-	-	-	241.5	-	-
Nacional AT	127.5	366.5	83.8	91.0	-	196.0	15.0	-	-	-	125.0	1,004.8	-	-
Subtotal Technical Assistance	135.0	366.5	83.8	130.0	-	376.0	30.0	-	-	-	125.0	1,246.3	-	-
E. Training & Studies	126.5	50.0	50.0	392.5	75.0	398.5	200.0	-	220.0	1,115.0	-	2,627.5	10.0	262.8
F. Materials	-	-	70.0	-	-	-	-	-	-	-	-	70.0	10.0	7.0
G. Subprojects	-	-	-	-	-	-	1,711.1	1,581.0	-	-	-	3,292.1	-	-
Total Investment Costs	261.5	416.5	203.8	522.5	75.0	780.5	2,692.6	1,581.0	220.0	1,115.0	125.0	7,993.4	4.1	327.4
II. Recurrent Costs														
Total BASELINE COSTS	261.5	416.5	203.8	522.5	75.0	780.5	2,692.6	1,581.0	220.0	1,115.0	125.0	7,993.4	4.1	327.4
Physical Contingencies	12.7	5.0	12.0	39.3	7.5	40.2	77.3	-	22.0	111.5	-	327.4	-	-
Price Contingencies	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total PROJECT COSTS	274.2	421.5	215.8	561.8	82.5	820.7	2,769.9	1,581.0	242.0	1,226.5	125.0	8,320.7	3.9	327.4
Taxes	-	-	-	-	-	-	43.5	-	-	-	-	43.5	9.1	4.0
Foreign Exchange	7.5	6.7	53.9	39.0	-	185.4	333.2	-	-	-	-	625.6	3.2	20.3

NICARAGUA
Atlantic Biodiversity Corridor
Expenditure Accounts by Years – Base Costs
(US$ '000)

	Base Cost						Foreign Exchange	
	1998	1999	2000	2001	2002	Total	%	Amount
I. Investment Costs								
A. Civil Works	-	395.0	-	-	-	395.0	-	-
B. Machinary & Equipment	6.0	74.0	60.0	60.0	60.0	260.0	85.0	221.0
C. Vehicles	102.5	-	-	-	-	102.5	85.0	87.1
D. Technical Assistance								
Internacional AT	143.0	75.0	15.5	-	8.0	241.5	100.0	241.5
Nacional AT	228.0	168.0	157.3	180.3	271.3	1,004.8	0.7	6.7
Subtotal Technical Assistance	371.0	243.0	172.8	180.3	279.3	1,246.3	19.9	248.2
E. Training & Studies	807.5	708.5	653.0	247.5	211.0	2,627.5	-	-
F. Materials	20.0	20.0	20.0	-	10.0	70.0	70.0	49.0
G. Subprojects	359.5	690.6	789.0	759.0	694.0	3,292.1	-	-
Total Investment Costs	1,666.5	2,131.1	1,694.8	1,246.8	1,254.3	7,993.4	7.6	605.3
II. Recurrent Costs								
Total BASELINE COSTS	1,666.5	2,131.1	1,694.8	1,246.8	1,254.3	7,993.4	7.6	605.3
Physical Contingencies	88.2	116.1	70.3	27.8	25.1	327.4	6.2	20.3
Price Contingencies	-	-	-	-	-	-	-	-
Total PROJECT COSTS	1,754.7	2,247.2	1,765.1	1,274.5	1,279.4	8,320.7	7.5	625.6
Taxes	-	43.5	-	-	-	43.5	-	-
Foreign Exchange	261.2	156.4	84.5	54.3	69.3	625.6	-	-

NICARAGUA
Atlantic Biodiversity Corridor
Expenditure Accounts by Years -- Totals Including Contingencies
(US$ '000)

	Totals Including Contingencies					
	1998	1999	2000	2001	2002	Total
I. Investment Costs						
A. Civil Works	-	434.5	-	-	-	434.5
B. Machinary & Equipment	6.3	77.7	63.0	63.0	63.0	273.0
C. Vehicles	107.6	-	-	-	-	107.6
D. Technical Assistance						
Internacional AT	143.0	75.0	15.5	-	8.0	241.5
Nacional AT	228.0	168.0	157.3	180.3	271.3	1,004.8
Subtotal Technical Assistance	371.0	243.0	172.8	180.3	279.3	1,246.3
E. Training & Studies	888.3	779.4	718.3	272.3	232.1	2,890.3
F. Materials	22.0	22.0	22.0	-	11.0	77.0
G. Subprojects	359.5	690.6	789.0	759.0	694.0	3,292.1
Total Investment Costs	1,754.7	2,247.2	1,765.1	1,274.5	1,279.4	8,320.7
II. Recurrent Costs						
Total PROJECT COSTS	1,754.7	2,247.2	1,765.1	1,274.5	1,279.4	8,320.7

NICARAGUA
Atlantic Biodiversity Corridor
Components by Financiers
(US$ '000)

	GEF		GON		Total		For.	Local (Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
A. PUBLIC COMMUNICATION AND EDUCATION									
1. International Level Program	246.7	90.0	27.4	10.0	274.2	3.3	7.5	266.7	-
2. National Level Program	379.4	90.0	42.2	10.0	421.5	5.1	6.7	414.9	-
3. Local Level Program	194.2	90.0	21.6	10.0	215.8	2.6	53.9	161.9	-
Subtotal PUBLIC COMMUNICATION AND EDUCATI	820.3	90.0	91.1	10.0	911.4	11.0	68.1	843.4	-
B. PLANNING AND MONITORING									
1. Corridor Planning	531.9	94.7	29.9	5.3	561.8	6.8	39.0	522.8	-
2. International Donors Coordination	66.0	80.0	16.5	20.0	82.5	1.0	-	82.5	-
3. Monitoring	780.0	95.0	40.7	5.0	820.7	9.9	185.4	635.3	-
Subtotal PLANNING AND MONITORING	1,377.9	94.1	87.0	5.9	1,464.9	17.6	224.4	1,240.5	-
C. PRIORITY BIODIVERSITY AREAS									
1. Conservation of Protected Areas	2,389.4	86.3	380.6	13.7	2,769.9	33.3	333.2	2,393.3	43.5
2. Sustainable Use	1,115.8	70.6	465.3	29.4	1,581.0	19.0	-	1,581.0	-
Subtotal PRIORITY BIODIVERSITY AREAS	3,505.1	80.6	845.8	19.4	4,350.9	52.3	333.2	3,974.3	43.5
D. INDIGENUOS COMMUNITIES									
1. Organizational Strengthening	242.0	100.0	-	-	242.0	2.9	-	242.0	
2. Land Demarcation	1,035.1	84.4	191.4	15.6	1,226.5	14.7	-	1,226.5	
Subtotal INDIGENUOS COMMUNITIES	1,277.1	87.0	191.4	13.0	1,468.5	17.6	-	1,468.5	
E. TECHNICAL COORDINATION UNIT	120.0	96.0	5.0	4.0	125.0	1.5	-	125.0	
Total Disbursement	7,100.4	85.3	1,220.4	14.7	8,320.7	100.0	625.6	7,651.7	43.5

NICARAGUA
Atlantic Biodiversity Corridor
Expenditure Accounts by Financiers
(US$ '000)

	GEF		GON		Total		For.	Local (Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
I. Investment Costs									
A. Civil Works	391.1	90.0	43.5	10.0	434.5	5.2	-	391.1	43.5
B. Machinary & Equipment	272.4	99.8	0.6	0.2	273.0	3.3	232.1	41.0	-
C. Vehicles	107.6	100.0	-	-	107.6	1.3	91.5	16.1	-
D. Technical Assistance									
Internacional AT	240.8	99.7	0.8	0.3	241.5	2.9	241.5	-	-
Nacional AT	925.5	92.1	79.3	7.9	1,004.8	12.1	6.7	998.1	-
Subtotal Technical Assistance	1,166.2	93.6	80.0	6.4	1,246.3	15.0	248.2	998.1	-
E. Training & Studies	2,604.0	90.1	286.2	9.9	2,890.3	34.7	-	2,890.3	-
F. Materials	69.3	90.0	7.7	10.0	77.0	0.9	53.9	23.1	-
G. Subprojects	2,489.8	75.6	802.4	24.4	3,292.1	39.6	-	3,292.1	-
Total Investment Costs	7,100.4	85.3	1,220.4	14.7	8,320.7	100.0	625.6	7,651.7	43.5
II. Recurrent Costs									
Total Disbursement	7,100.4	85.3	1,220.4	14.7	8,320.7	100.0	625.6	7,651.7	43.5

NICARAGUA
Atlantic Biodiversity Corridor
Disbursement Accounts by Financiers
(US$ '000)

	GEF		GON		Total		For.	Local (Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
4. Tecnical Asistance & Studies	3,595.2	90.6	374.6	9.4	3,969.8	47.7	292.4	3,677.4	-
6. Subprojects	3,505.1	80.6	845.8	19.4	4,350.9	52.3	333.2	3,974.3	43.5
Total	7,100.4	85.3	1,220.4	14.7	8,320.7	100.0	625.6	7,651.7	43.5

NICARAGUA
Atlantic Biodiversity Corridor
Allocation of Grant Proceeds
GEF
(US$ '000)

	Suggested Allocation of Grant Proceeds	
	Grant Amount	**Disbursement %**
1. Civil Works	450.0	60%
2. Goods	350.0	100% FE/ 80% LE
3. Technical Assistance, Studies, and Training	4,200.0	100 %
4. Subprojects	1,400.0	100 %
5. Incremental Recurrent Costs	400.0	100%, 80%, 60%
Unallocated	300.0	
Total	7,100.0	

Grant amounts financed by GEF

ANNEX 13. REPORTS IN PROJECT FILE

1. The following documents prepared or received during project preparation are in the Project File located in the World Bank's LAC Information Center. This list does not include the large number of documents used to prepare the Rural Municipalities Development Project.

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MAPS

MAP NO. 28754. NATURAL HABITATS OF NICARAGUA

MAP NO. 28755. ADMINISTRATIVE BOUNDARIES AND INDIGENOUS COMMUNITIES

MAP NO. 28756. ATLANTIC BIOLOGICAL CORRIDOR AND LAND USE PROPOSAL