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IMPLEMENTATION COMPLETION REPORT
(TF-28361)

ON A

GLOBAL ENVIRONMENT FACILITY TRUST FUND GRANT

IN THE AMOUNT OF US\$ 7.1 MILLION

TO THE

REPUBLIC OF NICARAGUA

FOR THE

ATLANTIC BIOLOGICAL CORRIDOR PROJECT

March 31, 2006

**Environmentally and Socially Sustainable Development Sector Management Unit
Central America Country Management Unit
Latin America and the Caribbean Region**

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CURRENCY EQUIVALENTS

(Exchange Rate Effective January 31, 2005)

Currency Unit = Córdoba

NIO 16.39 = US\$ 1

US\$ 0.061 = NIO 1

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

ABC	Atlantic Biological Corridor
BICU	Bluefields Indian and Caribbean University
CAS	Country Assistance Strategy
CCAD	Central American Commission on Environment and Development (<i>Comisión Centro-Americano de Ambiente y Desarrollo</i>)
CIDT	Intersectoral Commission of Demarcation and Land Titling (<i>Comisiones Intersectoriales de Demarcación y Titulación</i>)
CONADETI	National Commission for Demarcation and Land Titling (<i>Comisión de Demarcación de Tierras indígenas</i>)
CONAGRO	National Agricultural Council
FADCANIC	Foundation for Autonomy and Development of Nicaragua's Atlantic Coast (<i>Fundación para la Autonomía y Desarrollo de la Costa Atlántica de Nicaragua</i>)
GEF	Global Environment Facility
GON	Government of Nicaragua
IADB	Inter-American Development Bank
IDA	International Development Association
ICR	Implementation Completion Report
INIFOM	Nicaraguan Institute for Municipal Development (<i>Instituto Nicaraguense de Fomento Municipal</i>)
IPDP	Indigenous Peoples Development Plan
MARENA	Ministry of Environment and Natural Resources (<i>Ministerio del Ambiente y los Recursos Naturales de Nicaragua</i>)
MBC	Mesoamerican Biological Corridor
NGO	Nongovernmental Organization
NDF	Nordic Development Fund
NEAP	National Environmental Action Plan
NEF	National Environment Fund
NFAP	National Forestry Action Plan
OP	Operational Policy
PHRD	Japan Policy and Human Resources Development Fund
PIU	Project Implementation Unit
PRODEP	Land Administration Project (<i>Proyecto de Ordenamiento de la Propiedad</i>)
PROTIERRA	Rural Municipalities Project
PSR	Project Supervision Report
RAAN	Northern Autonomous Atlantic Region (<i>Región Autónoma del Atlántico Norte</i>)
RAAS	Southern Autonomous Atlantic Region (<i>Región Autónoma del Atlántico Sur</i>)

SAR Staff Appraisal Report
SDR Special Drawing Rights
SERENA Natural Resources Secretariats (*Secretaría de Recursos Naturales*)
SIAR Regional Environmental Information system (*Sistema de Información Ambiental Regional*)
SINIA National System of Environmental Information (*Sistema Nacional de Información Ambiental*)
URACCAN University of the Autonomous Regions of the Atlantic Coast of Nicaragua (*Universidad de las Regiones Autónomas de la Costa Caribe Nicaragüense*)

Vice President:	Pamela Cox
Country Director	Jane Armitage
Sector Director	Laura Tuck
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NICARAGUA
Atlantic Biological Corridor (GEF)

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<i>Project ID:</i> P041790	<i>Project Name:</i> Atlantic Biological Corridor (GEF)
<i>Team Leader:</i> Douglas J. Graham	<i>TL Unit:</i> LCSEN
<i>ICR Type:</i> Core ICR	<i>Report Date:</i> March 31, 2006

1. Project Data

Name: Atlantic Biological Corridor (GEF) *L/C/TF Number:* TF-28361
Country/Department: NICARAGUA *Region:* Latin America and the Caribbean Region

Sector/subsector: General agriculture, fishing and forestry sector (49%); Central government administration (22%); Other social services (17%); General education sector (12%)

Theme: Biodiversity (P); Environmental policies and institutions (P); Participation and civic engagement (P); Indigenous peoples (S); Land administration and management (S)

KEY DATES

	<i>Original</i>	<i>Revised/Actual</i>
<i>PCD:</i> 05/22/1995	<i>Effective:</i> 10/20/1998	10/20/1998
<i>Appraisal:</i> 10/15/1996	<i>MTR:</i> 02/01/2001	09/24/2001
<i>Approval:</i> 06/25/1997	<i>Closing:</i> 03/31/2003	09/30/2005

Borrower/Implementing Agency: REPUBLIC OF NICARAGUA/MINISTRY OF ENVIRONMENT
Other Partners: Nordic Development Fund

STAFF	Current	At Appraisal
<i>Vice President:</i>	Pamela Cox	Shahid Javed Burki
<i>Country Director:</i>	Jane Armitage	D. Dowsett-Coirolo
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2. Principal Performance Ratings

(HS=Highly Satisfactory, S=Satisfactory, U=Unsatisfactory, HL=Highly Likely, L=Likely, UN=Unlikely, HUN=Highly Unlikely, HU=Highly Unsatisfactory, H=High, SU=Substantial, M=Modest, N=Negligible)

Outcome: S
Sustainability: L
Institutional Development Impact: SU
Bank Performance: S
Borrower Performance: S

Quality at Entry: QAG (if available) ICR
S
Project at Risk at Any Time: No

3. Assessment of Development Objective and Design, and of Quality at Entry

3.1 Original Objective:

The Project Development Objective of the GEF-financed Atlantic Biological Corridor Project was 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 the region. From a biological perspective, the Atlantic Coast is extremely rich in ecological regions and ecosystems of global importance. Nicaragua's Atlantic Coast is a critical link in the Mesoamerican Biological Corridor (MBC), which stretches from southern Mexico to Panama. The project was associated with the World-Bank-financed Nicaragua Rural Municipalities Project (PROTIERRA–P007790; closed March 1, 2002), which addressed root causes of biodiversity loss on the Pacific and Atlantic Coasts¹. This objective was accomplished by improving the policy and legal frameworks for environmental and natural resources management. Several types of training in environmental management were provided that increased the awareness and knowledge of managers and technical specialists, and enhanced their ability to analyze and implement the GON's national priorities. This training included staff of MARENA and several other government agencies responsible for environmental governance. Under PROTIERRA, MARENA established “rules of the game” for future environmental operations in protected areas management and coastal zone management.

Sustainability of the Atlantic Biological Corridor at project design was perceived as more likely if the following activities were carried out:

- Widely and aggressively promoting and disseminating the ABC concept to local communities, regional and national institutions, international organizations, and society at large
- Improving coordination of activities between regional governments and the international donor community
- Developing a strategy and action plan to continue attracting international and domestic funds to support corridor-related activities beyond the life of the project
- Strengthening local organizations, in particular, by the demarcation of indigenous lands² and assistance to indigenous communities
- Establishing a financial mechanism (under the NEF) to ensure the financing of recurrent costs of protected area management (to be supported by the IDA-financed components of PROTIERRA).

¹ The availability of unowned and unexploited land on the Atlantic Coast 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 eastward **push** of colonists. As poor families have migrated from the Pacific and Central zones and as the central government sought land on which to settle ex-combatants from the civil war, forest clearing for subsistence farming increased along with extensive livestock operations, commercial logging, mining, and fishing. To reduce the **pull factors** on the Atlantic Coast and **stabilize communities**, the GON is also implementing or developing donor-supported projects to promote conservation and sustainable use of biological resources on the Atlantic Coast.

² It was not until the Constitution of 1987, the Autonomy Law of 1987, and the Partial Reform of the Constitution of 1995 were enacted that the rights of indigenous communities in the Atlantic region to their traditional lands and use of natural resources within those lands was explicitly recognized.

3.2 Revised Objective:

There were no revisions of the objectives of the project.

3.3 Original Components:

3.3.1 *Public Communication and Education* (US\$1.16 million, 6.7% of total project cost): The objectives of this component were to (a) raise the level of public discussion on the ABC and 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 on the Atlantic Coast, (e) contribute to the long-term sustainability of the GEF-financed project, and (f) secure donor support for conservation and rural development programs on the Atlantic Coast.

3.3.2 Corridor Planning and Monitoring (US\$5.02 million, 28.8% of total project cost): The objectives of this component were to (a) carry out a process of participatory planning that, in the short term, would finalize the definition of the ABC and, in the medium term, provide an instrument to prioritize and coordinate sustainable development and biodiversity conservation activities within and around the ABC; (b) develop a series of local, regional, and national level plans that reflected the agreements between key stakeholders and decisionmakers directed at establishing and conserving the ABC; (c) support subnational regional governments on international donor coordination; and (d) develop the capacity within MARENA and in the Regions to monitor the ABC, monitor trends in natural resources use and biodiversity conservation in support of corridor protection, and lastly, monitor planning, and the subsequent prioritization and targeting of ABC-related activities.

3.3.3 Priority Biodiversity Areas (US\$8.59 million, 49.3% of total project cost): The objectives of this component were to (a) strengthen the management and protection of legally declared protected areas within the context of decentralization of the administration and management of the Atlantic Protected Areas System; and (b) enhance the conservation and protection of biodiversity outside of the legally protected areas by influencing the trends in land use toward conservation and sustainable use of biodiversity. Rather than extending over the entire corridor, this component would target resources at the priority areas identified during preparation. The criteria included (a) high importance of biodiversity, (b) resources or plant/animal species currently threatened or likely to be threatened, and (c) areas or species lacking adequate support from donors or GON.

3.3.4 Indigenous Communities Development (US\$2.50 million, 14.4% of total project cost): This component was intended to finance consultants, workshops, training and dissemination materials, study tours and travel expenses, public works, and incremental recurrent costs to (a) strengthen indigenous organizations by including training in natural resource management; (b) support the regional governments and the National Commission for Demarcation of Indigenous Lands; and (c) support indigenous land demarcation activities.

3.3.5 Support to the Project Implementation Unit (PIU) (US\$0.13 million, 0.8% of total project cost; Credit No. 2918-NI: US\$1.00 million for first 4 years): This component was scheduled to finance consultant and operating costs of the PIU in the last year of the project when the PROTIERRA project would have been completed. In the first four years, the PIU was to be financed through the IDA-financed component of PROTIERRA. Due to delays in meeting conditionalities, the PIU was able to rely on PROTIERRA financing for only the first year of operation. During remaining years, PIU expenditures were financed through reallocated funds, as agreed in the first amendment to the project.

3.4 Revised Components:

In 1998, Nicaragua was hit with Hurricane Mitch, the most destructive hurricane in the nation's history. An estimated 3,000 people died; 1 million people were affected; and an estimated 151,215 homes, 512 schools, 140 health centers, 5,700 roads, and 1,900 bridges were damaged or destroyed. Damages were estimated at US\$1.5 billion. Despite the crisis generated by the hurricane, project components did not change substantially during implementation. However, an Emergency Assistance Program was added to the PIU Component. This program consisted of restoring, reactivating, improving, and transforming socioeconomic infrastructure destroyed and/or damaged by the hurricane. This program executed funds from

PROTIERRA, which did not have a presence on the Atlantic Coast. The program benefited 90 indigenous and nonindigenous communities.

3.5 Quality at Entry:

The performance rating for this aspect is considered **Satisfactory**. Before approval, the project met currently accepted Quality-at-Entry standards in applying World Bank procedures, policies, and safeguards. The project objectives were consistent with the CAS, the donor program, and government priorities.

An overarching objective of the assistance strategy was to strengthen the government's capacity to manage the country's longer-term development agenda. However, limited IDA resources required that the Bank's program in Nicaragua be highly selective. Consequently, over FY95–99, the assistance strategy adopted a 2-track approach. The first track would maintain a sharp focus on macroeconomic stabilization to lay the foundation for a sustained and private-sector-led economic recovery. Adjustment lending was the centerpiece of this effort and would be reinforced by an intensive policy dialogue, analytical work and increased donor coordination and resource mobilization. The second track would concentrate on equity and sustainable development by focusing on (1) capacity building; (2) poverty alleviation and human resource development; (3) restoration of physical and social infrastructure; and (4) improved environmental management.

The GON showed a high degree of ownership of the project and concurred with the Bank that poverty alleviation, natural resources management, and securing land rights of indigenous communities on the Atlantic Coast were important national goals. The GON also agreed that addressing these goals in a decentralized manner would be the most effective means. The government supported community-driven and participatory development and quickly absorbed these approaches into its own strategic thinking on the role of municipalities as instruments of social and economic development. During preparation, an Indigenous Peoples Development Plan (IPDP) was prepared through extensive consultation with indigenous communities.

Project risks were adequately identified and included (1) high rates of population growth on the Atlantic Coast; (2) uncertain financial sustainability of protected areas; (3) insufficient presence of MARENA on the Atlantic Coast; (4) uncertain capacity of subnational regional governments to control natural resources management; (5) uncertain capacity of beneficiaries to generate high-quality subprojects; (6) the possibility of inadequate support and participation of key stakeholders; and (7) the possibility that sectoral coordination would fail, creating imbalances in implementation that might increase threats to the biological corridor.

These risks were dealt with during project implementation. Two risks were addressed at the outset and established as conditions of effectiveness and disbursement, respectively. The first addressed demarcation and titling decrees and/or legislation for indigenous lands. The second referred to a decree that would regulate the National Environment Fund in form and substance. In hindsight, despite delaying project implementation, the indigenous land titling legislation conditionality was essential to new legislation allowing for the titling of communally held territories. This legislation provided a significant advance in regularizing indigenous territories in Nicaragua.

4. Achievement of Objective and Outputs

4.1 Outcome/achievement of objective:

The project's overall performance is rated as **Satisfactory**.

The project contributed to the development of a regional planning framework to conserve and manage biodiversity while supporting the development of policies, strategies, and planning and monitoring tools. These instruments strengthened the ability of central, regional, and local governments and organizations to conserve biodiversity and manage natural resources. This, in turn, facilitated medium- to long-term strategic planning. As an overall impact, stakeholders now recognize that a biologically important corridor of natural habitat extends along the Atlantic Coast. The regional governments agree and also are committed to support activities that will conserve the ABC. In addition, the project worked with the region's poorest people by focusing on increasing incomes while protecting the environment through small-scale natural resources projects.

Despite these efforts, the indicator of diminishing or reverting deforestation was not achieved in all priority biodiversity areas. Historical land use change analysis of some areas shows an expansion of the agricultural frontier. In certain vulnerable areas of the Atlantic Coast, the pressure of migration on the agricultural frontier simply overwhelmed all efforts to stabilize it. In some areas, failure to move quickly and consolidate indigenous land rights contributed to this scenario. Nevertheless, the investment in park infrastructure, park management plans, and local personnel greatly slowed illegal invasions into protected areas compared to what might have happened in the absence of the project's investments.

4.2 Outputs by components:

4.2.1 Public Communication and Education

The most important result in this component, rated as **Satisfactory**, was the increase in the level of awareness and knowledge of the ABC as a part of the Mesoamerican Biological Corridor at the international, national, and subnational levels. In the last case, this was important in the North and South Autonomous Atlantic Regions (RAAN and RAAS, respectively, Map A1, Annex 9). This component also supported institutional strengthening of the Ministry of the Environment and Natural Resources (MARENA), and the Autonomous Regional Governments¹. The project was successfully introduced to key stakeholders in the Atlantic Region and to the Nicaraguan public at large. The component also was able to promote the concept of biological corridors in national, subnational and local deliberations regarding sustainable development². In addition, the national communication strategy was well executed through massive national and regional campaigns. The project's message was disseminated throughout priority areas in local languages by means of televised programs, videos, advertising spots, seminars, announcements, and written materials.

¹ The Autonomous Atlantic Regions were first recognized as such by Law 28 (September 7, 1987). It provided the recognition of the multiethnic characteristic of the population indigenous to the Atlantic Coast of Nicaragua. It also provided the legal backing for municipal decentralization and the recognition of the rights of the people of the Atlantic Coast to use the natural resources found on their lands.

² Biological corridors were introduced in conservation as a means to counter the isolation of species and population extinction that reduce biological diversity.

4.2.2 Corridor Planning and Monitoring

This component, rated as **Satisfactory**, directly helped conserve biodiversity in Nicaragua's Atlantic Coast. The component's main accomplishments were to (1) carry out the Atlantic Coast region's first participatory planning process, which generated strong local ownership and provided an instrument with which to prioritize and coordinate sustainable development and biodiversity conservation activities; (2) develop a series of local, subnational, and national plans reflecting agreements between key stakeholders and decision-makers directed at establishing and conserving the ABC; (3) support subnational governments

in international donor coordination; and (4) develop the capacity within MARENA and the Regions to monitor the ABC and trends in natural resources use and biodiversity conservation to support corridor protection and planning, and subsequent prioritization and targeting of ABC-related activities.

The project's support for community planning was important in creating local ownership of the planning process. The project not only facilitated the entire process in a highly participatory manner but also carried out *in situ* capacity building for local participants as well as land use planning and natural resource management (NRM) training for 60 local technicians. These activities enriched the ensuing discussions and created new planning and NRM skills within the communities. In this context, 89 Community Planning Programs were prepared. These provided communities with a management tool to guide decisions about future investments and help assess socioeconomic and environmental impacts in priority areas.

Included in support to community planning was the establishment of Regional Planning Committees in both Autonomous Regions. These committees are composed of representatives of regional government councils, mayors' offices, private sector, universities, community organizations, and civil society. The committees function as a forum to promote consultation and facilitate participation by enabling stakeholders to analyze and evaluate policies, laws, programs, projects, actions, and alternatives. This empowerment through participation has resulted in improved analytical capacity to provide solutions to decision-makers and has strengthened the Autonomous Regions.

The second important accomplishment consisted of the design and implementation of the strategic development plans of both Autonomous Regions. These regional plans included the municipal development plans. The former were incorporated in Nicaragua's 10-year National Development Plan. The process opened a dialogue between the Pacific and Atlantic Coasts of Nicaragua on strategies to deal with the agriculture frontier. The project led this process by providing technical and financial assistance for analytical work including land classification, which served as the basis for the strategic regional planning process. This assistance enabled the inclusion of biological corridors as an integral part of the definition of sustainable development in regional policy discussions on land use planning and natural resource management. The project facilitated highly specialized regional technical planning assistance, including institutional and organizational aspects; and the identification of environmental planning instruments. Training local leaders contributed to richer discussions on integrating the corridor concept in the planning process and created local ownership of the policy dialogue about the biological corridor.

A third accomplishment was the project's support to the two Regional Land Use Strategies for the Atlantic Coast (one for the North and one for the South). During this process, the project contributed to an important series of roundtable discussions among key sectors and translated community plans into local indigenous languages. This process led to the Regional Strategies being officially presented to the Consultative Group (Donors Meeting) in October 2003. An important project achievement was the increased capacity of regional governments to discuss and negotiate directly with external donors on development issues.

A fourth accomplishment was the capacity developed to monitor the ABC and trends in natural resources use and biodiversity conservation. The monitoring focused on support of corridor protection and planning and subsequent prioritization and targeting of project-related activities. To this effect, baseline and analytical studies supported by the Nordic Development Fund (NDF) were carried out on sectors including Fishing and Marine Resources, Forestry, Tourism, Production Systems, Territorial Planning, and Municipal Planning. These studies were approved by the main stakeholders of both Autonomous Regions and served as inputs to shape the Regional Sustainable Development Strategy document. At the national level, another important outcome of the project's support through technical assistance was the approval by

Executive Decree No. 50-2001 of the Nicaraguan Forest Policy, which introduced the first coherent set of forest programs and projects. Similarly, fishing, transportation, and infrastructure policies were approved with project support.

Other major monitoring achievements included:

- Completion of the ecosystems map of Nicaragua as a part of a regional initiative to create an ecosystems map of Central America, led in part by the World Bank and the Central American Commission of Environment and Development (CCAD).
- A historical analysis was undertaken of vegetative cover changes (changes in land use) and of the biophysical characteristics of the entire country. This map provides what is now the principal classification system of natural habitats in the country.
- The Regional Environmental Information System (SIAR) (www.siar.org.ni) and Regional Monitoring Program were among the first project-supported initiatives targeted at decentralization. An interinstitutional agreement was signed between MARENA and the Caribbean Coast University of Nicaragua (URACCAN) in Bluefields and Puerto Cabezas. With the project's support, representatives from these institutions established, with the National System of Environmental Information (SINIA) (www.sinia.net.ni), a strategic working agenda to create a short-term administrative structure that included the majority of key stakeholders involved in biodiversity monitoring of the Caribbean Coast.
- The design and implementation of the decentralized Environmental Regional Monitoring Program of the Caribbean Coast of Nicaragua, supported by local universities (URACCAN and Bluefields Indian and Caribbean University, or BICU), the regional NGO FADCANIC (Fundación para la Autonomía y Desarrollo de la Costa Atlántica de Nicaragua), and MARENA.
- The project was instrumental in supporting a process that led to the creation of a consensus on regional environmental monitoring standards for the Atlantic Coast of Nicaragua.

4.2.3 Priority Biodiversity Areas

This component is considered **Moderately Satisfactory**. It strengthened the institutional structures for management and protection of legally declared protected areas as well as decentralized the administration and management of the Atlantic Protected Areas System. Biodiversity conservation in buffer zones outside legally protected areas was enhanced by influencing the trends in land use through the quite successful subprojects program.

That said, the key indicator of slowing deforestation rates in two selected project areas (Cerro Silva and Wawashan Reserves) was not achieved. Data available showed that annual deforestation rates (calculated as % of reserve area) for closed broadleaf forests in the periods 1989-1999 and 2000-2003 actually increased from 3.7% to 5.9% in Cerro Silva and from 1.7% to 3.9% in Wawashan. The high 2000-2003 rates measure deforestation in the first half of the project; satellite images of interpretable quality could not be obtained to measure trends in the last three years of the project, when many of the project measures (building of park infrastructure, hiring park guards, participatory preparation of management plans completed only in 2004, strengthening regional park units, etc.) came into effect. Anecdotal evidence suggested that deforestation rates slowed substantially in the last three years. These two reserves are the areas of most intense deforestation in Nicaragua and it may have been inappropriate to use them as characteristic of the entire ABC; the bulk of forested areas in the Atlantic Biological Corridor, particularly in the northern portion of Nicaragua's Atlantic Coast, underwent conversion rates which were much lower or even have remained largely intact.

The long-term sustainability of the ABC depends to a great degree on the conservation of large areas of intact natural habitat connected by thinner strips of relatively well conserved habitat. Although patches

were reduced in size, the project contributed to this long-term goal of biodiversity conservation through a number of concerted efforts and it seems reasonable to conclude that without the project, Nicaragua would not now have anything in place to slow the rapidly moving agricultural frontier.

First, MARENA's Department of Protected Areas was supported with technical staff who coordinated the process of protected areas administration in both RAAN (i.e., northern half of the Atlantic Coast) and RAAS (i.e., southern half) with a gradual decentralization to regional authorities. An ongoing academic and practical capacity building program also increased protected areas' administrative capabilities.

In-depth studies of Cayos Miskitos, Cerro Silva, Wawashan, and other priority protected areas (Map A2, Annex 10) were completed. A participatory process with key actors reached consensus on the limits of the protected areas. Subsequently, management and implementation plans for Cayos Miskitos, Cerro Silva, and Wawashan were completed. Co-management and community development plans with georeferenced databases were developed for each protected area. Different options were considered and validated. In addition, the conservation status and viability of the corridors connecting Wawashán and Cerro Silva were determined with biological (e.g., ecosystems, vegetative cover, and wildlife presence), socioeconomic, and cultural assessments. In addition, a Land Use Planning proposal for Waspám Municipality was drafted through a highly participatory process and was officially approved by the Mayor's office. This Land Use Plan is now the management tool guiding programs in the municipality and is recognized as a major achievement of the project in the RAAN.

Second, the project supported the development and approval of the National Environmental Fund (NEF), a financial mechanism designed to capture and allocate financing to environmental management. The NEF was approved on October 15, 2001 and resolved a pending conditionality required by the Legal Agreement for the Community Subprojects component. Although NEF was created, it did not function as anticipated due to limited government support. In July 2003, an amendment to the Legal Agreement removed the conditionality and the subprojects were finally launched. In anticipation of these funds being released and given the short amount of time left for subproject implementation, the project team had identified and partially prepared subprojects to expedite implementation. However, due to lack of implementation follow-up on some later subprojects, these final subprojects were ultimately not as effective as they might have been if there had been more time. At this time, NEF is being strengthened and eventually may bring the intended benefits to Nicaragua.

Third, based on the Community Development Plans, 22 conservation and sustainable natural resource management subprojects were formulated and implemented. Nine of these subprojects were in the RAAS, in which 40 communities benefited from project support; and 13 were in the RAAN, in which 24 communities benefited. These subprojects were focused on strengthening production systems (such as agroforestry, community tourism, artisanal fishing, and biodiversity conservation) and municipal environmental health management. As a result of these efforts, families located in protected areas, buffer zones, and interconnecting corridors were able to improve their standard of living. This improvement was accomplished by implementing biodiversity-friendly sustainable production practices. In addition, productive capacities were strengthened through training, which introduced environmentally friendly agricultural production technologies.

An important outcome of the subprojects was the full involvement of local indigenous nongovernmental organizations in their design and co-management. This involvement required strengthening these NGOs in technical and financial management aspects as well as in fundraising.

The Regional Subproject Committees were important because of the local ownership garnered through the

process. These committees were formed in RAAN and RAAS and were the entities responsible for subproject decisionmaking and follow-up. In light of their success and as an indicator of continuity, they are being used in other investment projects such as the IADB-funded Socio-Environmental and Forestry Development Program (POSAF Phase II).

Other important contributions resulting from this component were:

- Support for building physical infrastructure including the MARENA Office Delegation in Puerto Cabezas, a multiuse building in Waspám, and a Regional Information System Office in Bluefields
- Assistance in refurbishing the Protected Areas Administrative office in Bluefields, the Capacity Training and Library Center in Puerto Cabezas, and five park guard houses
- Support provided to the Autonomous Governments to create the Natural Resources Secretariats (SERENAs). In the case of RAAS, seed capital was provided that allowed its first activities to be strengthened and launched. The SERENA offices are continuing some project activities. Perhaps more important is their role in the decentralization of protected areas and biodiversity management.

4.2.4 Indigenous Communities Development

One key element of the GON's strategy for the Atlantic Coast is to minimize access to priority areas of high biodiversity. One mechanism is to strengthen and enforce indigenous communities' land and natural resources rights. The objectives of this component were to strengthen indigenous communities and their organizations, to improve their capacity to sustainably manage communal natural resources, and to strengthen and enforce their land and natural resources rights.

This component is rated as **Satisfactory** because it achieved this objective to a large extent. The project promoted a series of policies that integrated indigenous people in the national regulatory framework by recognizing and respecting their territorial rights. The 1987 Political Constitution and the Atlantic Autonomous Region Law significantly changed Nicaraguan policies toward indigenous populations in the country, opening the possibility of full tenure of traditional lands and control of their natural resources. The 1995 constitutional reform introduced new concepts such as "ethnic, social, and political pluralism and indigenous peoples." This terminology created a new awareness of ethnic groups.

The project was a major supporter of the consultative process and consensus building for the indigenous communities of the Atlantic Coast and Bosawas Territorial Demarcation Law. The Executive Branch introduced the bill in October 1998. After a long consultative process in RAAN and RAAS, financed in part by the project, the Law on the Communal Property Rights of Indigenous People and Ethnic Communities of the Atlantic Coast, Bocay, Coco, Indio and Maíz Rivers (Law 445), was submitted to the National Assembly in 2000 and approved in December 2002.

Through the project, MARENA supported the Regional Governments (RAAN and RAAS) in drafting institutional norms and administrative procedures for land titling and demarcation of indigenous territories. The drafting was done in working sessions with Regional Councils and indigenous communities. The National Commission for Demarcation and Land Titling (CONADETI) was formed with project support, as were the Intersectoral Commissions on Demarcation and Land Titling (CIDT). Ordinary and extraordinary sessions were held with CIDT in RAAS and RAAN to analyze requests for demarcation presented by indigenous communities. The project provided cartographic information and developed a Geographic Information System relating to indigenous communities within RAAN and RAAS. This information was updated as new demarcation information became available, and thematic maps of the indigenous communities were created. These institutional norms and administrative processes were an important contribution to the communities as it introduced co-management, local organizational

arrangements, the Operational Manual, and members' responsibilities.

The project supported the legalization of 24 indigenous organizations in RAAN and 5 organizations in RAAS. Legalization was supported by capacity building in social, administrative, technical, financial, land tenure legalization, natural resources management, and biodiversity conservation aspects. In addition, the project supported training in topics such as environmental and community-related conflict resolution, indigenous community-oriented leadership, autonomous rights, basic indigenous rights, demarcation and land title issues in accordance with Law 445, natural resources management (including policies, laws, and regulations), bookkeeping, women's rights, gender, and sound household financial management.

In conclusion, local organizations, indigenous communities, and ethnic groups are better trained in managing natural resources. In addition, they are contributing to the formulation of a proposal on territorial land use planning for the autonomous regions with updated information in studies and diagnostic evaluations aimed at the planning and development of local regions.

4.2.5 Support to the Project Implementation Unit

This component is rated as **Satisfactory** because it successfully financed project implementation while strengthening administrative and financial capacities of project staff. The Operational Plan was adjusted to address internal and external factors affecting project success. For example, the project successfully managed responses to Hurricane Mitch. Training regional personnel in administrative processes (following World Bank and GON procedures) and technical issues related to decentralizing the project was another important element in the PIU's success.

According to the original design, the IDA component of the Rural Municipalities Project was to finance the PIU during its first four years. Approximately US\$1 million were allocated under Credit No. 2918-NI for this purpose. However, due to the two-year delay in effectiveness of the ABC Project, there was a corresponding extension the project, and the PIU funding came from the reallocation of project funds.

4.3 Net Present Value/Economic rate of return:

N/A

4.4 Financial rate of return:

N/A

4.5 Institutional development impact:

The project's institutional development impact is considered to be **Substantial**.

The project played a significant role in improving the country's ability to make effective use of its human and financial resources to manage natural resources and conserve biodiversity. The decentralization of MARENA's administration of the project to the Atlantic Coast was an important element in the success of local ownership and the ability of local governments to manage natural resources. Other contributions included:

- Supporting the consultative process and consensus building that led to the enactment of Law 445. As a result, the communities of Nicaragua's Atlantic Coast gained the right to claim their territories and manage the resources on them.
- Facilitating project-supported participatory processes significant in developing the Regional Strategies for the Atlantic Coast regions. The Community Planning Programs also were prepared in a participatory manner. They provided communities with a management tool to guide their decisions about future investments by assessing socioeconomic and environmental impacts in

priority areas.

- Assisting to develop a regional planning framework for the conservation and sustainable use of biodiversity by strengthening the ability of central, regional, and local governments and organizations to conserve biodiversity and manage natural resources.
- Facilitating the establishment of the Regional Planning Committees in the Atlantic Coast regions and of the Regional Environmental Information System (SIAR). Both have strengthened the Atlantic Coast regions as they seek to improve their socioeconomic, environmental, and cultural development.
- Supporting the Atlantic Coast regional governments in the creation of the Natural Resources Secretariats (SERENA). These secretariats play an important role in the regions by promoting biodiversity conservation and natural resource management, as was carried out under the project. Equally important is their role in the decentralization of protected areas and biodiversity management.
- Obtaining the full involvement of local indigenous NGOs in the co-management of subprojects. These NGOs were strengthened through targeted training that improved their capacity for financial management.

5. Major Factors Affecting Implementation and Outcome

5.1 Factors outside the control of government or implementing agency:

Within eight days of Project effectiveness, Nicaragua was devastated by Hurricane Mitch (see Section 3 above). The Bank undertook a rapid assessment of where it could contribute to the relief effort and, as a result, reallocated US\$1 million from the Rural Municipalities Project (PROTIERRA) for rapidly-disbursing subprojects for this effort. These funds were managed by the GEF project's PIU. Ultimately, the impacts and disruption caused by Hurricane Mitch were responsible for a one-year delay in all project activities.

A second factor that was outside the control of either the government or the Implementing Agency was the delay in disbursement of the Nordic Development Fund due to modifications of the NDF Credit Agreement. These funds were part of the overall project and eventually were used as counterpart funds. The delay in the NDF funds delayed disbursements under the Planning Component, because many activities were to be co-executed by the two funding sources. Eventually, however, all planned project activities were executed. Cofinancing funds from the Canadian and Dutch governments were fully provided and disbursed.

5.2 Factors generally subject to government control:

One condition for effectiveness was the submission to the National Assembly of a draft law related to the demarcation and titling of indigenous lands in the Atlantic Coast. The government took more than one year to comply with this condition.

Additional delays occurred when the government did not meet two disbursement conditions. The first was the creation of the National Environmental Fund (NEF); the second was the approval of the Indigenous Peoples Land Demarcation Law. Noncompliance with these conditions delayed disbursements for certain activities by two years.

The NEF was created in October 2001 at the end of the outgoing Alemán administration. The incoming Bolaños administration did not provide the political support to advance this initiative. In July 2003, the World Bank agreed to an amendment in which the NEF conditionality for disbursing US\$1 million for subprojects was removed. This released the funds for the subprojects, albeit late, given that the newly extended closing date was 15 months away. The project eventually was extended and the subprojects were

successfully, although hurriedly, implemented.

The land demarcation conditionality was important in moving the agenda to establish legal rights for the indigenous populations of Nicaragua to manage their traditional lands. By July 2003, a revised draft of the law was being debated in the National Assembly. With the Bank's approval of the Land Administration Project (PRODEP), the Bank thought it was appropriate to remove the conditionality and pass the ongoing dialogue to PRODEP. This removal of the conditionality freed US\$800,000 allocated for demarcation under the GEF-financed project, which was reallocated to support the indigenous land claim process and natural resources management by indigenous communities.

5.3 Factors generally subject to implementing agency control:

The MARENA PIU satisfactorily executed and delivered project objectives as measured by the established indicators. It was undoubtedly helpful that at least several senior consultants were part of the PIU staff for project identification, preparation, and implementation, especially given that, during this period, the country had three presidents and four ministers of environment.

5.4 Costs and financing:

The only significant change in project costs was a reallocation of funds within categories. With the delay of project effectiveness and disbursements for subprojects and demarcation activities, the project was extended for a total of 2 ½ years. The PIU originally was to be financed during the first four years of the project with funds from the Rural Municipalities Project (PROTIERRA). Given the delays and the closing of PROTIERRA in 2002, US\$875,000 was reallocated within the GEF-financed project to cover operating costs.

6. Sustainability

6.1 Rationale for sustainability rating:

The project's overall sustainability is rated as **Likely**. The project has several important outputs: (1) increased national and international awareness of the ABC and its underlying concepts; (2) strengthened national and regional planning mechanisms that incorporate biodiversity concerns for the Atlantic Coast region; (3) strengthened local planning mechanisms for the Atlantic Coast region; (4) strengthened long-term capacity to monitor the Atlantic Biological Corridor; (5) better protection of key protected areas; (6) support for the resolution of indigenous land tenure issues; and (7) better land use practices and technologies in the biological corridor.

One of the greatest impacts of the project was its support in making the Law on the Communal Property Rights of Indigenous People and Ethnic Communities of the Atlantic Coast, Bocay, Coco, Indio and Maíz Rivers (Law 445) a reality. With this law in place, indigenous people's lands have begun to be demarcated and titles issued, thereby assuring their rights to ancestral lands. Legal title in turn can significantly reduce pressure on biodiversity, because titled lands are not as easily subject to exploitation by third parties. At the time of this ICR, legal impediments to registering Law 445 titles are being resolved under the Bank-financed Land Administration Project (PRODEP).

The planning instruments for regional, municipal, and local development prepared with project support have been adopted by local governments and are being applied. Regional and local planning and management efforts are expected to improve as environmental concerns are internalized in the policy debate. A positive social impact is expected in the medium term as the plans laid out are implemented and political decision-makers focus on poverty alleviation in a context of environmentally sustainable development. Reducing poverty will address one of the greatest pressures on natural resources and the environment in the Atlantic Coast: dependence on natural resources as a mainstay for livelihoods.

Another important project outcome was the inclusion of the Regional Development Plans of the Atlantic Coast regions in the National Development Strategy. This long-term vision provides guidelines on natural resources management and prioritizes areas for conservation and sustainable use. Management plans approved by local authorities (councils and local commissions) now serve as the strategic bases for NRM planning, because they promote conservation in large areas of the corridor and provide clear guidelines for future investors and donors.

Capacity building was an important element from both the technical and sustainability perspectives, because the project supported training local indigenous technical staff in conservation and sustainable management of biodiversity. The project also provided training for protected area staff, local communities, and technical staff in the regional and national offices on issues ranging from protected area management plans to conflict resolution.

The implementation of community-driven subprojects that focus on strengthening productive systems, agroforestry systems, community-based tourism, fishing, and biodiversity conservation has strengthened the productive base while providing avenues for natural resources conservation. These subprojects had an impact on incomes in recipient communities, thus reducing pressure on natural resources.

6.2 Transition arrangement to regular operations:

One of the most important operational decisions taken in the course of the project was to decentralize project management to the Atlantic Coast region, a transition that took place in early 2002. This effectively brought the project closer to the target populations and made for greater ownership by local and regional governments.

In effect, the project was successful in supporting the inclusion of biodiversity conservation and improved natural resource management into the local, regional, and national decision-making processes. Providing local communities with alternative livelihoods through the subprojects also was important in reducing pressure on protected areas and biodiversity corridors. These mechanisms will remain in place beyond the life of the project.

Biodiversity monitoring will need follow-up as it has quickly weakened following project closure. This follow-up is anticipated by the GEF-financed Nicaragua/Honduras Corazón Transboundary Biosphere Reserve Project, which will be presented to the Board in FY06.

7. Bank and Borrower Performance

Bank

7.1 Lending:

The Bank's overall performance in project identification, preparation, and appraisal is rated **Satisfactory**.

The GEF-financed project, integrally linked with the IDA-financed Rural Municipalities Project (PROTIERRA), focused on promoting the conservation and sustainable use of biodiversity in priority areas of Nicaragua's Atlantic Coast region. The importance of highlighting this close association with PROTIERRA is that the two projects sought to address key poverty alleviation and natural resource management issues in this region. This approach built upon the country's policies that recognized the rights of indigenous communities in the Atlantic Coast region to their traditional lands and the use of the natural resources within these lands.

The project was fully consistent with the CAS and concentrated on equity and sustainable development,

focusing on (1) capacity building, (2) poverty alleviation and human resource development, (3) restoration of physical and social infrastructure, and (4) improved environmental management. An overarching objective of the CAS was to strengthen the government's capacity to manage not only the structural reform program but also the country's longer-term development agenda.

The project followed applicable Bank safeguard policies and met all financial management and procurement requirements. While the Bank appraisal correctly analyzed the issues and challenges for each component, the Bank underestimated the amount of time needed to establish the National Environmental Fund, a condition of disbursement for community-driven subprojects. Furthermore, the Bank underestimated the amount of time and effort needed to get the Law on the Communal Property Rights of Indigenous People and Ethnic Communities of the Atlantic Coast, Bocay, Coco, Indio and Maíz Rivers (Law 445) approved.

7.2 Supervision:

Bank supervision is rated **Satisfactory**. The Bank carried out close supervision with an average of three to four missions per year. The supervision mission teams were a broad mix of international and local professionals. The core supervision team was maintained throughout the project. The current Task Team Leader became Task Manager in July 1997 and had been involved in the project throughout project identification. The Task Team Leader likewise served on Bank teams for other projects in Nicaragua, as well as other environmental projects in Central America, which greatly facilitated project supervision.

With respect to Bank safeguards, the most significant Bank Operational Policy triggered related to Indigenous Peoples (OP 4.20). More than half of the missions were accompanied by an indigenous peoples specialist, sociologist, or anthropologist.

The project team and Bank management adapted flexibly to situations that delayed project implementation. The team facilitated solutions to improve project performance; for instance, four amendments were made to the project to improve implementation.

7.3 Overall Bank performance:

Overall Bank performance is considered **Satisfactory**.

Borrower

7.4 Preparation:

Borrower performance was **Satisfactory**. The GON's commitment to project objectives was strong given that, during project preparation, the Atlantic Coast region was seen as an emerging national priority. The GON agreed that a participatory approach was the best way to advance the sustainable development of the region and supported the highly consultative process during project preparation. Despite the weaknesses in municipal and sub-national governments on the Atlantic Coast, the GON provided the support necessary to obtain full participation from the regional governments and local communities.

7.5 Government implementation performance:

The government's performance during implementation is rated as **Satisfactory**. Despite the difficulties in complying with the Conditions for Effectiveness and Disbursements, which were legislative responsibilities and not under the direct control of the Executive Branch, the government was committed to project implementation. Of the expected government cofinancing at appraisal of \$1.57 million, 94% was provided. The initial amount was defined as including about \$0.6 million of government counterpart funds, about \$0.6 million of in-kind support from the regional governments, and about \$0.4 million of in-kind support from beneficiaries of subprojects. Only the latter amount was under-executed because the total funding

made available for subprojects was reduced.

Meeting the Condition for Effectiveness (that is, submitting a draft law on indigenous peoples' land demarcation and titling) took 14 months after the signing of the Grant Agreement. Subsequently, the Disbursement Condition for land demarcation activities required passage of the law by the National Assembly. Realizing the delay that this would cause, the government requested that this condition be dropped. Recognizing that these issues could be dealt with more effectively in the Bank-funded Land Administration Project, the Bank agreed to waive the condition. The Disbursement Condition for community-driven subprojects required the government to approve and constitute a National Environment Fund (NEF). Doing so proved politically difficult to implement, although the Fund was created by decree. The NEF eventually was implemented, but not in time for the project to use it as a funding mechanism. The government recognized these difficulties and requested that his condition also be waived, to which the Bank agreed. The NEF is still incipient but slowly capitalizing.

7.6 Implementing Agency:

The performance of the Project Implementation Unit within MARENA is rated as **Satisfactory**. The PIU comprised a solid and committed team of professionals who were dedicated to improving the quality of life of Nicaragua's communities in the Atlantic Coast region. Despite repeated changes at the ministerial level, project staff maintained consistency and institutional memory throughout the life of the project.

A major turning point in the project was the decentralization of project management to the Atlantic Coast region. Until that time, the project had been managed by project staff in the nation's capital. Initially, the regions did not have the capacity to absorb the responsibilities and duties associated with a project of this nature. Building the regional capacity was a key step in providing the Atlantic Coast with the ability to manage the financial resources. When the project decentralized, it became closely integrated with activities of municipal regional governments. The Regional Plans developed with project support were integrated in the National Strategic Plans. The key fiduciary and administrative oversight remained in the Managua office.

The PIU effectively managed the PROTIERRA resources for post-Hurricane Mitch activities in the Atlantic Coast regions.

7.7 Overall Borrower performance:

The overall project performance of the Borrower is rated **Satisfactory**.

8. Lessons Learned

- **Decentralize to the local level.** Decentralizing technical and administrative functions to the Atlantic Coast region was important to obtain buy-in at the regional and local levels. According to interviews during the ICR mission, until project decentralization, the project had relatively little ownership in the Atlantic Coast region. Project decentralization generated support and increased its effectiveness and impact.
- **Training pays off.** Investing in continuous, systematic training was important. Such training enabled the incorporation of local people into the project's daily operations and provided them with increased ownership of the decisionmaking. Local communities now are able to manage their own financial resources and to attract investors and donors with no outside assistance.
- **Involve local players in monitoring.** Monitoring is significantly improved when it is carried out by

local players who are trained and empowered. Involving local universities was important to provide training and continuity to the monitoring.

- **Foster local ownership at the technical and decisionmaking level.** Biodiversity monitoring was reduced after project closure. The reduction occurred due to the lack of local ownership and understanding of how this information feeds into decisionmaking. It is important to provide training for biodiversity monitoring at the technical level as well as to decisionmakers, to enable them to effectively use this information.
- **Project conditionalities are often a “double-edged sword.”** There was consensus among individuals interviewed during the ICR mission that, had there been no condition for the communal titling law, this law never would have materialized. Eventually, the project waived the Disbursement Condition for approval of the law, because there was a Bank-financed Land Administration Project better suited to take on the land-related activities. In retrospect, the communal titling law condition was a positive long-term contribution to consolidating indigenous land rights in the Atlantic Coast region.
- **Assess well political realities before setting conditions.** The other unmet Disbursement Conditionality was the approval and implementation of the National Environmental Fund (NEF). This condition was waived toward the end of the project, after which monies were available for the subprojects. The concept of having an NEF that could manage the resources for subprojects made eminent sense; however, the political difficulties of implementing this were underestimated.
- **Carry out planning in a consultative/participatory manner.** Planning instruments should be developed, validated through a consultative process, and implemented during the project’s life. Bringing all stakeholders into the process creates a sense of ownership and empowers them to use the tools in their daily decision processes.
- **Strengthened local organizations are key to success.** It is important to strengthen local organizations that represent key stakeholders and are in close coordination with civil society organizations and national, regional, and local governments. Strengthening these local organizations facilitates consensus building processes and local ownership, which lead in a structured and systematic way to the implementation of development plans.
- **Plan implementation is ultimately the most important step.** Locally designed community development plans become powerful and useful tools for strategic development. However, their implementation, through national, regional, municipal, and community participation is far more important than their design.
- **Implementation of a communication strategy is fundamental for success.** It is not enough to generate technical information and post it on the Internet. For projects such as this one, a full-fledged communication strategy needs to be developed and implemented. This approach should be wide-reaching and use different media for targeted populations, as carried out under the project.

9. Partner Comments

(a) Borrower/implementing agency:

The Vice-Minister of MARENA conveyed to the Bank the Government's comments on the ICR in a letter to the ESSD Sector Leader of the Central America Country Management Unit for Central America dated March 23, 2006. The following is a translated version of the comments.

"The Ministry of the Environment and Natural Resources (MARENA), as the executing institution, expresses its agreement with the satisfactory rating presented by the evaluation. The Ministry reiterates its commitment to contribute to the sustainability of Project results within the framework of the Mesoamerican Biological Corridor's Corazon Transboundary Biosphere Reserve Project and the Strengthening of the National Protected Area System Project.

The Government of Nicaragua, thanks the World Bank for its opportune support from project identification through its closing".

Señor
JOHN KELLENBERG
Sector Leader,
Environmentally & Socially Sustainable Development
Central America Country Management Unit
Latin America and the Caribbean Region
World Bank
Washington, D.C

**Ref: Proyecto Corredor Biológico del Atlántico de Nicaragua
P041 790/ GEF 28361-NI**

Estimado Señor Kellenberg:

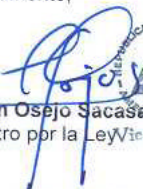

Hemos revisado el "Informe de Cumplimiento de Implementación" (ICR No:35412) del Proyecto Corredor Biológico del Atlántico de Nicaragua (P041790), financiado mediante una donación del Fondo Mundial del Medio Ambiente de US\$7,1 millones, otorgado a la República de Nicaragua.

El Ministerio del Ambiente y los Recursos Naturales (MARENA), como institución ejecutora, expresa conformidad por la evaluación "satisfactoria" que hace el informe y reitera su compromiso de aplicar las lecciones aprendidas en el proceso de implementación de los Proyectos Reserva Biosfera Transfronteriza Corazón del Corredor Biológico Mesoamericano y del Proyecto de Fortalecimiento al Sistema Nacional de Áreas Protegidas.

Asimismo, el Gobierno de Nicaragua agradece el apoyo y acompañamiento oportuno que el Banco Mundial brindó desde la formulación hasta el cierre de este Proyecto.

Aprovecho la ocasión para reiterarle nuestro agradecimiento, consideración y estima.

Atentamente,



Liliam Osejo Sacasa
Ministra por la Ley
Vice Ministra

cc: Ing. Cristóbal (Tito) Sequeira
Dr. Mario Arana
Sra. Amparo Ballivián
Lic. José Santos Mendoza
Lic. María Martha Abaunza
Archivo

Ministro MARENA
Ministro MHCP
Representante Banco Mundial en Nicaragua
Secretario General MARENA
Coordinador Proyecto CBA

(b) Cofinanciers:

(c) Other partners (NGOs/private sector):

10. Additional Information

Annex 1. Key Performance Indicators/Log Frame Matrix

Outcome / Impact Indicators:

Indicator/Matrix	Projected in last PSR ¹	Actual/Latest Estimate
Reduction in rate of forest cover loss in Cerro Silva and Wawashan from years 1 to 5 of Project	Decline from baseline.	Not achieved. Deforestation rates extremely difficult to quantify, but estimates for annual deforestation rates (% of reserve area) for closed broadleaf forests (other habitat types generally stable) 1989-1999 and 2000-2003 show increase from 3.7% to 5.9% in Cerro Silva and 1.7% to 3.9% in Wawashan. Anecdotal evidence suggests that in last three years of project -- not covered in these periods -- rates decreased to pre-project levels as project-supported measures started to come into effect.
By year 5, planning tools of regional governments reflect the ABC	Both Regional Governments have incorporated the ABC into their planning instruments.	Both Regional Governments have incorporated the ABC into their planning instruments.
High priority protected areas come under more effective management	Three major PAs to have management plans completed.	All three management plans completed, implementation of plans incipient and variable.
Indigenous communities in ABC with lands demarcated and undergoing legalization	Five by year 5 of project.	No areas have been legalized, but through the project enabling legislation has been prepared and approved and the government is working toward this goal.
Population dynamics of key indicator species	Species will be subject to natural variation but not any major anthropogenic disturbances such as declining populations or extinction. In Sept. 2004 definitively considered as being impossible to measure within the context of this project.	N/A

Output Indicators:

Indicator/Matrix	Projected in last PSR ¹	Actual/Latest Estimate
Knowledge about ABC by key decision-makers	60%	Final survey reflects 90% decision makers interviewed knowledgeable of the ABC.
Knowledge about ABC by regional population.	35%	A survey in the Atlantic Coast Region (North and South) reflected a 60% level of knowledge of the ABC of those interviewed at the community level.
Planning: Ministerial Planning Units reflect ABC in their sectoral plans	Four by Year 5.	100% Ministerial plans incorporate ABC concepts in their planning.
Planning: Local level plans incorporate ABC in their planning	50	RAAN-RAAS Natural Resources Secretariat (SERENAS) reflects 100 % sectoral plans incorporating ABC concepts.
Monitoring reports with quantitative data on forests and indicator species	2	Carried out by the Regional Environmental Monitoring Program of the Caribbean Coast of Nicaragua
Priority Biodiversity Areas: Invasions systematically recorded and reported	Functional system by end of project.	Technical Protected Area staff carried this out. Now this is an activity undertaken by SERENA.
Communities carrying out sustainable development projects (indicator reformulated in MTR) due to project influence	40	40 RAAS 24 RAAN
Legal framework for titling indigenous lands	Framework approved and functional	3 Municipalities in Solid Waste projects Framework approved

<p>in place Indigenous communities participating in management of protected areas</p>	<p>3</p>	<p>Cayos Miskitos Co-management Confederation of the Tawira and Prinzu territories 100% legalized. Wawashang 24 Communities (100%) under Community Co-management Committee, not legalized. Cerro Silva : 17 Indigenous Communities under a Legalized Communal Committee.</p>
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¹ End of project

Annex 2. Project Costs and Financing

Project Cost by Component (in US\$ million equivalent)

Component	Appraisal Estimate US\$ million	Actual/Latest Estimate US\$ million	Percentage of Appraisal
1. Public Communication and Education	1.16	0.96	82.76
2. Corridor Planning and Monitoring	5.01	4.09	81.47
3. Priority Biodiversity Areas	8.58	7.90	84.98
4. Indigenous Communities Development	2.50	2.94	117.6
5. Support to Project Implementation Unit	0.12	1.03	858.33
Total Baseline Cost	17.37	16.92	
Total Project Costs	17.37	16.92	
Total Financing Required	17.37	16.92	

Project Costs by Procurement Arrangements (Appraisal Estimate) (US\$ million equivalent)

Expenditure Category	Procurement Method ¹			N.B.F.	Total Cost
	ICB	NCB	Other ²		
1. Works	0.00 (0.00)	1.05 (0.84)	0.83 (0.66)	0.20 (0.00)	2.08 (1.50)
2. Goods	0.00 (0.00)	0.24 (0.20)	0.54 (0.47)	0.00 (0.00)	0.78 (0.67)
3. Services	0.00 (0.00)	0.00 (0.00)	2.44 (2.36)	4.50 (0.00)	6.94 (2.36)
4. Training	0.00 (0.00)	0.00 (0.00)	0.83 (0.78)	0.00 (0.00)	0.83 (0.78)
5. Subgrants	0.00 (0.00)	0.32 (0.24)	1.26 (0.95)	4.00 (0.00)	5.58 (1.19)
6. Recurrent Costs	0.00 (0.00)	0.00 (0.00)	1.16 (0.60)	0.00 (0.00)	1.16 (0.60)
Total	0.00 (0.00)	1.61 (1.28)	7.06 (5.82)	8.70 (0.00)	17.37 (7.10)

Project Costs by Procurement Arrangements (Actual/Latest Estimate) (US\$ million equivalent)

Expenditure Category	Procurement Method ¹			N.B.F.	Total Cost
	ICB	NCB	Other ²		
1. Works	0.00 (0.00)	0.32 (0.32)	0.06 (0.00)	0.20 (0.00)	0.58 (0.32)
2. Goods	0.45 (0.45)	0.05 (0.05)	0.03 (0.00)	0.00 (0.00)	0.53 (0.50)
3. Services	0.00 (0.00)	0.00 (0.00)	4.32 (4.29)	3.80 (0.00)	8.12 (4.29)
4. Training	0.00	0.00	0.92	0.16	1.08

	(0.00)	(0.00)	(0.92)	(0.00)	(0.92)
5. Subgrants	0.00 (0.00)	0.00 (0.00)	1.19 (0.80)	4.00 (0.00)	5.19 (0.80)
6. Recurrent Costs	0.00 (0.00)	0.00 (0.00)	1.25 (0.27)	0.17 (0.00)	1.42 (0.27)
Total	0.45 (0.45)	0.37 (0.37)	7.77 (6.28)	8.33 (0.00)	16.92 (7.10)

^{1/} Figures in parenthesis are the amounts to be financed by the Bank Loan. All costs include contingencies.

^{2/} Includes civil works and goods to be procured through national shopping, consulting services, services of contracted staff of the project management office, training, technical assistance services, and incremental operating costs related to (i) managing the project, and (ii) re-lending project funds to local government units.

Project Financing by Component (in US\$ million equivalent)

Component	Appraisal Estimate			Actual/Latest Estimate			Percentage of Appraisal		
	Bank	Govt.	CoF.	Bank	Govt.	CoF.	Bank	Govt.	CoF.
1. Public Communication and Education	0.84	0.12	0.20	0.75	0.01	0.20	89.3	8.3	100.0
2. Corridor Planning and Biodiversity Monitoring	1.41	0.10	3.50	1.09	0.05	2.96	77.3	50.0	84.6
3. Priority Biodiversity Areas	3.50	1.08	4.00	2.76	0.99	4.15	78.9	91.7	103.8
4. Indigenous Communities Development	1.25	0.25	1.00	1.90	0.01	1.02	152.0	4.0	102.0
5. Support to Project Implementation Unit	0.10	0.02	0.00	0.60	0.43	0.00	600.0	2150.0	0.0
TOTAL	7.10	1.57	8.70	7.10	1.49	8.33	100.0	94.9	95.7

Annex 3. Economic Costs and Benefits

Annex 4. Bank Inputs

(a) Missions:

Stage of Project Cycle	No. of Persons and Specialty (e.g. 2 Economists, 1 FMS, etc.)		Performance Rating		
	Month/Year	Count	Specialty	Implementation Progress	Development Objective
Identification/Preparation					
	23 Jan. 1996	2	BIOLOGIST(1); FORESTER(1)	S	S
	23-27 Feb. 1996	3	TASK MANAGER (1); BIOLOGIST(1); ECONOMIST(1)	S	S
	27 May 1996	2	BIOLOGISTS(2)	S	S
	15-27 April 1996		BIOLOGISTS(2)	S	S
	20-26 June 1996	1	INDIG. EXPERT(1)	S	S
	24-27 July 1996	1	SOCIAL EXPERT(1)	S	S
	15-22 Aug. 1996	5	FORESTER(1); BIOLOGISTS(3); INST. EXPERT(1)	S	S
Appraisal/Negotiation					
	23-30 Sept. 1996	5	BIOLOGISTS(2); INST. EXPERT(1), SOCIAL EXPERT(1), INDIG. EXPERT(1)	S	S
	Nov. 96	1	SOC. EXPERT(1)	S	S
	9-17 Dec. 1996	4	TASK MANAGER (1); BIOLOGIST(1); INDIG. EXPERT(1); FORESTER(1)	S	S
	10-17 Feb. 1997	1	TASK MANAGER (1)	S	S
	14-21 April 1997 (Appraisal)	7	TASK MANAGER (1); NATURAL RES. ECON(1); LAWYER(1); SOC. EXPERT(1); FORESTER (1); INST. EXPERT(1); FUNDS EXPERT(1)	S	S
Supervision					
	July 1997	3	TASK MANAGER (1); BIODIVERSITY SPECIALIST (1); ENV. ECONOMIST (1)	S	S
	August 1997	2	TASK MANAGER (1); BIODIVERSITY SPECIALIST (1)	S	S
	11 Dec 1997	2	BIODI SPECIALIST(1); INDIG. SPECIALIST (1)	S	S
	June 1998	2	TASK MANAGER (1); INDIG. SPECIALIST (1)	S	S
	04 Dec 1998	10	TASK MANAGER (1); GENERAL SUPERVISION (2); INDIGENOUS ISSUES (1); LEGAL ISSUES (1); PROMOTION STRATEGY (1);	S	HS

			FINANCIAL CONTROLS (1); NDF COFINANCING (1); LEGAL AND PROMOTION (1); INSTITUTIONAL ISSUES (1)		
Feb 1999	1		TASK MANAGER (1)	S	HS
08 Dec 1999	5		TASK MANAGER (1) BACK-UP TASK MANAGER (1); SOCIOLOGIST (1); ANTHROPOLOGIST (1); LAND SPECIALIST (1)	S	HS
19 Jan 2000	1		TASK MANAGER (1)	S	HS
April 2000	1		TASK MANAGER (1)	S	HS
08 Sept 2000	1		INDIG. SPECIALIST (1)	S	HS
11 Dec 2000	7		TASK MANAGER (1); ECONOMIST (1); COMMUNICATIONS-FAO/CP (1); ENV. FUND (1); INFO. MGMT. (1); INDIG. SPECIALIST (1); PLANNING-FAO/CP (1)	S	S
August 2001	1		TASK MANAGER (1)	S	S
05 Oct 2001 (MTR)	5		TASK MANAGER (1); AG. ECONOMIST (1); SOC. COMM. SPEC. (1); INST. SPEC. (1); INDIG. SPECIALIST (1)	S	S
Feb 2002	1		TASK MANAGER (1)	S	S
26 Jul /2002	1		TASK MANAGER (1)	S	S
Oct 2002	5		TASK MANAGER (1); PROCUREMENT SPEC. (1); DISBURSEMENTS(1); FIN. MGMT (1); GEF COORD.(1)	S	S
05 Dec 2002	3		TASK MANAGER (1); SOCIOLOGIST (1); ECONOMIST (1)	S	S
April 2003	1		TASK MANAGER (1)	S	S
15 July 2003	1		TASK MANAGER (1)	S	S
25 Feb 2004	2		TASK MANAGER (1); SOCIOLOGIST (1)	S	S
Oct 2004	2		TASK MANAGER (1); SOC. SPEC.(1)	S	S
May 2005	1		TASK MANAGER (1)	S	S

ICR

20/01/2006	I	ENVT. ECONOMIST(1)	S	S
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(b) Staff:

Stage of Project Cycle	Actual/Latest Estimate	
	No. Staff weeks	US\$ ('000)
Identification/Preparation	16	42.7
Appraisal/Negotiation	18	48
Supervision	180	530
ICR	5	21
Total	219	641.7

Annex 5. Ratings for Achievement of Objectives/Outputs of Components

(H=High, SU=Substantial, M=Modest, N=Negligible, NA=Not Applicable)

	<u>Rating</u>				
<input checked="" type="checkbox"/> <i>Macro policies</i>	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input checked="" type="radio"/> NA
<input checked="" type="checkbox"/> <i>Sector Policies</i>	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input checked="" type="checkbox"/> <i>Physical</i>	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input checked="" type="checkbox"/> <i>Financial</i>	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input checked="" type="radio"/> NA
<input checked="" type="checkbox"/> <i>Institutional Development</i>	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input checked="" type="checkbox"/> <i>Environmental</i>	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<i>Social</i>					
<input checked="" type="checkbox"/> <i>Poverty Reduction</i>	<input type="radio"/> H	<input type="radio"/> SU	<input checked="" type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input checked="" type="checkbox"/> <i>Gender</i>	<input type="radio"/> H	<input type="radio"/> SU	<input checked="" type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input type="checkbox"/> <i>Other (Please specify)</i>	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input type="checkbox"/> <i>Private sector development</i>	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input checked="" type="checkbox"/> <i>Public sector management</i>	<input type="radio"/> H	<input type="radio"/> SU	<input checked="" type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
<input type="checkbox"/> <i>Other (Please specify)</i>	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA

Annex 6. Ratings of Bank and Borrower Performance

(HS=Highly Satisfactory, S=Satisfactory, U=Unsatisfactory, HU=Highly Unsatisfactory)

6.1 Bank performance

Rating

- | | | | | |
|---|--------------------------|------------------------------------|-------------------------|--------------------------|
| <input checked="" type="checkbox"/> Lending | <input type="radio"/> HS | <input checked="" type="radio"/> S | <input type="radio"/> U | <input type="radio"/> HU |
| <input checked="" type="checkbox"/> Supervision | <input type="radio"/> HS | <input checked="" type="radio"/> S | <input type="radio"/> U | <input type="radio"/> HU |
| <input checked="" type="checkbox"/> Overall | <input type="radio"/> HS | <input checked="" type="radio"/> S | <input type="radio"/> U | <input type="radio"/> HU |

6.2 Borrower performance

Rating

- | | | | | |
|---|--------------------------|------------------------------------|-------------------------|--------------------------|
| <input checked="" type="checkbox"/> Preparation | <input type="radio"/> HS | <input checked="" type="radio"/> S | <input type="radio"/> U | <input type="radio"/> HU |
| <input checked="" type="checkbox"/> Government implementation performance | <input type="radio"/> HS | <input checked="" type="radio"/> S | <input type="radio"/> U | <input type="radio"/> HU |
| <input checked="" type="checkbox"/> Implementation agency performance | <input type="radio"/> HS | <input checked="" type="radio"/> S | <input type="radio"/> U | <input type="radio"/> HU |
| <input checked="" type="checkbox"/> Overall | <input type="radio"/> HS | <input checked="" type="radio"/> S | <input type="radio"/> U | <input type="radio"/> HU |

Annex 7. List of Supporting Documents

CarlBro International. Marzo 2003. Plan de desarrollo comunitario de Kilómetro 43. Municipio de Puerto Cabezas Región Autónoma Del Atlántico Norte. Nicaragua. Versión final

CarlBro International. Julio 2004. Corredor Biológico Del Atlántico. Componente de Planificación y Monitoreo. Informe Final. Nicaragua.

Global Environment Facility. June 1997. Nicaragua, Atlantic Biological Corridor Project (Report No. 16535-NI). Project Document. Washington, DC.

Nicaragua, Republica de. Septiembre, 1987. Estatuto De Autonomía De Las Dos Regiones De La Costa Atlántica De Nicaragua, Ley No. 28

Nicaragua, Republica de. Noviembre 1993. Plan de Acción Ambiental. Ministerio de Economía y Desarrollo.

Nicaragua, Republica de. 2005. Proyecto Corredor Biológico del Atlántico. Colección de reportes, informes, presentaciones y videos. CD y DVD.

Nicaragua, Republica de. 2005. Proyecto Corredor Biológico del Atlántico. Informe Final.

Nicaragua, Republica de. 2005. Proyecto Corredor Biológico del Atlántico. Resultados y Productos

Programa de las Naciones Unidas para el Desarrollo. 2005. Informe de Desarrollo Humano 2005. Las regiones autónomas de la Costa Caribe ¿Nicaragua asume su diversidad?. 1ª. ed.. Managua.

R.S. Olson, et al. 2001. The Storms of '98: Hurricanes Georges and Mitch: Impacts, Institutions Response, and Disaster Politics in Three Countries. Natural Hazards Research and Applications Information Center. Special Publication 38. Natural Hazards Research and Applications Information Center Institute of Behavioral Science University of Colorado.

World Bank. 1994. Project Appraisal Document for a Proposed Second Economic Recovery Credit (P-6340-NI).

World Bank. December 2002. Implementation Completion Report (PPFI-P9710 IDA-29180 TF-29203) on a Loan/Credit/Grant in the amount of SDR 20.9 million (US\$30 million Equivalent) to the Government of Nicaragua for a Rural Municipalities Project.

Additional Annex 8. Borrower's Summary ICR



MINISTRY OF THE ENVIRONMENT AND NATURAL RESOURCES

ATLANTIC BIOLOGICAL CORRIDOR PROJECT

RESULTS AND PRODUCTS

**CONTENT
RESULTS AND PRODUCTS
ATLANTIC BIOLOGICAL CORRIDOR**

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ANNEX I: ACRONYMS

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Presentation

The Government of Nicaragua, through the Ministry of Environment and Natural Resources (MARENA), has implemented the Atlantic Biological Corridor Project, with the support of the World Bank. It was executed with funds of the Global Environment Facility (GEF). The project was executed in a close relationship with both Autonomous Regional Governments of the Caribbean Coast of Nicaragua, who were strengthened with basic technological tools for strategic planning in the sustainable use of natural resources.

The decentralization of the processes, technically as well as administrative toward both Autonomous Regions, meant qualitative and quantitative leaps forward in the project's executions, because besides generated a capacity training of high performance to local staff; incorporate them into administrative and technical procedures along the process. Thus, allowing the increase of the building capacities and technical- cultural exchange. These efforts increase the goals sequences and increase significantly the participation levels and therefore the project appropriation.

Capacity training generated by ABC has contributed in forming a great number of local indigenous technical staff, now in possession of powerful tools for conservation and sustainable management of biodiversity. On the other hand, Law 445 and the demarcation and land title issues supported by ABC are contributing to indigenous people to assure their rights on ancestral land and consolidating the land tenure.

A special emphasis was given to the communities' development plans, which were executed right from their own knowledge and environments. They became a powerful useful tool for strategic development. However it is not enough just to publish them, but to guarantee their implementation through national, regional, municipal and community participation.

The planning instruments for regional, municipal and local development that were elaborated and officialized by the ABC project have started to be applied. Probably in the future will influence in getting a major improvement in regional management with an imprinting of environmental emphasis on political decisions, in both regional as well as local governments. The positive impact and its social sustainability will be appreciated in the medium term as the proper planning carries on by the political decision makers would contribute to poverty alleviation and turn to diminish one of the major focus of pressure on natural resources and environment at the Caribbean Coast of Nicaragua.

In Conclusion, the ABC initiative has been one of best Central Government's efforts on natural resources conservation, developed through a strategic program that combines regional, municipal and local levels, that provides production alternatives in buffer zones, contributing to end the advancing of the agriculture boundaries, combining efforts with indigenous communities to delimit and title their lands.

This document summarizes the main results and products that Nicaragua's Government has carried out through the Ministry of the Environment and Natural Resources, as a contribution to the development process of the Caribbean Coast of Nicaragua.

1. - DESCRIPTION OF THE PROJECT

The Atlantic Biological Corridor project (ABC) has the objective of promoting the integration of a Biological Corridor along the Caribbean Coast of Nicaragua, assuring the conservation and the sustainable use of the biological resources on that region. It is the contribution of Nicaragua to the Mesoamerican Biological Corridor (MBC). The ABC consisted on strategic planning of the use of the land and a very good array of laws and politics in order to promote the sustainable management of natural resources and biodiversity in the area of the Caribbean of Nicaragua, throughout the integration of necessities, priorities and decisions of the different sectorial agencies of the Nicaragua Government, the regional and local governments, the multi-ethnic communities, and the private sector.





2.- COMPONENTS AND THEIR RESULTS

2.1 COMPONENT I: Communication, Dissemination and Public Awareness

The purpose of this component was to communicate and to disseminate the concept of the ABC to the international, national and regional levels, improving the coordination levels, the organization and the execution capacities of the different decisions makers, at the national and regional levels. The general population of Nicaragua has known the concept and importance of the ABC. The main activities of this component were; the dissemination of information, diffusion of technical and cultural activities as a strategic issues to assure a visibility of the corridor as a concept of sustainable use of the biological resources of this region.



2.1.1 - RESULTS AND PRODUCTS: Communication, Dissemination and Public Awareness

The most important result in this component, was the contribution to increase the level of knowledge and appropriation of the Atlantic Biological Corridor, as a part of the Mesoamerican Biological Corridor, at the international, national and regional level, particularly in both Autonomous Atlantic Regions RAAN and RAAS, strengthening the institutional performance of the Central American Commission of Environment and Development (CCAD), the Ministry of the Environment and Natural Resources (MARENA), and the Autonomous Regional Governments. The ABC has been known by the key actors of these regions, and known by the general public in Nicaragua. Likewise, it achieved the assimilation of the concept of biological corridors and their importance in the sustainable development. In addition, it was achieved at the national level, the execution of the communication strategy and dissemination of the ABC concept, through a national and regional massive campaign of promotion in RAAN and RAAS in local languages, which included programs in TV, videos, advertising spots, presentation results, seminars, announcements and written material.

Four national conferences on the ABC were carried out, including the MBC with journalists at the national level. The design and constant up to date of the Web page of the ABC, contributed to the increase in the level of information and appropriation of ABC concept and importance. All the

information generated by the project is available to guide political actions of the decision makers and by general public. This information it is on line in the Web page (www.cbanic.org). It is considered in both regions that at least 90% of the key decisions makers regional governments, regional council, local governments, government delegation, nongovernment organizations, know and use the information generated by the ABC. On the other hand, the ABC concept knowledge of the local population is considered 50% in the RAAN and 55% in RAAS, especially due to the work carried out in the last two years. In addition, also it is inferred according to the rating programming in TV and radial programs that at least 15% of the whole populations of teachers to national level know the concept of ABC.

2.2 COMPONENT II: Planning and Monitoring of the Corridor

Their objectives were oriented to the promotion of the local institutional capacities in planning and a sound management of the natural resources, and to give the opportunity to establish a database and a registration of the biological population on the places of local interest through a process of participative planning that in a short term, would allow the definition of the ABC, and in a medium term, would provide an instrument of priority of tendencies and provide the coordination of activities to the sustainable development and conservation of the biological diversity inside and around the ABC.

2.2.1 RESULTS AND PRODUCTS: Planning and Monitoring of the Corridor

This component achieved positive results, never before seen in the Atlantic coast of Nicaragua, such as a planning process with a massive participation of the local indigenous communities had been carried out. The results of that planning process functioned as baseline to design and implement the municipal development plans, and the strategic development plans of both Autonomous Regions. This process culminated with the incorporation of both strategic plans to the National Development Plan of Nicaragua, which has a futuristic vision for the next 10 years. This has provided an historical framework in the relationships Pacific-Caribbean regions of Nicaragua, being the ABC project the leader of this process, offering technical and financing assistance, with basic studies and land classification that served as modern information for the regional strategic planning process. In addition, the conservation interests, particularly the biological corridor concept as sustainable development, has been integrated in the different regional policies. Now the politic organizations and key leaders have enough capacity to guide and participate in the integration of the ABC concept in the whole procedures of planning process.

Also, this component contributed through technical assistance, the approval of the Nicaragua forest policy, being approved by the executive No.50-2001 in La Gaceta, Official Newspaper (May 11 the 2001). In a same way, it was approval the fishing, transport and infrastructure policies

Capacity training to both Regional Governments and ABC personnel in planning methodologies, were carried out constantly in both Autonomous Regions. These sessions included different key actors from institutions, Regional Governments Secretaries, Regional Councils; having a main objective that of creating cleared perspectives, concepts, concrete lines of actions that would contribute to improve the Regional Governments capacity to function efficiently, as well as strategy- planning in order to achieve sustainable development. In this context, ABC Project contributed in that process by facilitating highly specialized technical assistance in regional planning, focused mainly on institutional organizations tasks and the clear identification of environmental planning instruments with emphasis on administrative and economical

components.

The staff personnel of regional institutions were intensely trained in strategic regional planning, methods development for a broader participation of technical staff of both Autonomous Regional Governments North & South. These recipients obtained highly technical concepts as working tools for achieving better planning schemes.

The working process to achieve one document on Regional Strategy for the Atlantic Coast was also assisted by the ABC. However, both Regional Governments decided to present two strategies, one for the North Region and one for the South Region. Thus, the ABC Project facilitated the processes by assisting the local staff with technical professionals to help them with both documents. At the same time, ABC also contributed by forming the round- conference working tables made up of key sectors that were involved in preparing the consultation draft documents to the Donors Community. As a result of these efforts, the Regional Strategy for Development for both RAAN & RAAS was officially presented to the Consultative Group (Donors Meeting).

Studies on sectors, such as, Fishing & Marine Resources, Forestry, Tourism, Production Systems, Territorial Planning, and Municipal Planning were created with highly technical-scientific levels incorporating the ABC concept. These studies were also approved by the main actors of both Autonomous Regions, which also served as input in the creation of the Regional Strategy of Sustainable Development.

The ABC map was redefined. Also, a historical analysis on vegetation cover changes (land use) and biophysical characteristics of the entire Atlantic Coast was elaborate. Thus, it is a major achievement because it represents useful technical tool for planning and monitoring with the help of an updated technical- scientific instrument. However, this map shows that the agriculture frontier advancements continue even inside protected areas.

Community planning represents the importance and major positive impact to the local level that the project contributed to. Besides helping in facilitating an entire highly participative process a combination of participation and capacity training in situ, as well as, training in service aimed at 60 local technicians, which also enriched and contributed in creating new skills within the communities. In this context, eighty nine (89) Community Planning Programs were created that help the communities with a management tool for socio-environmental and economical aspects in orienting future investments in areas that are priorities. Moreover, those programs represent a local development strategy, becoming the basis for obtaining financial assistance from other donors towards the municipal and national governments.

Another important achievement was the creation and establishment of Regional Committees for Planning in both Autonomous Regions. They were integrated by Council Representatives and Regional Government, Mayor Offices, sectorial entities, universities, communities organizations and civil society in general. This in turn functions as a forum with a special space for consultation and facilitating society's participation allowing actors to analyze and evaluate policies, laws, programs, projects, actions and options that strengthened multisectoral organizations of both Autonomous Regions aimed at the socio-economic, environmental and cultural development, improving analysis capacities, providing answers and solutions to decision makers towards the regional human development and that of municipalities.

The Regional Environmental Information System (SIAR) & Regional Monitoring were among the

first indicators on decentralization that ABC Project supported. Also, an interinstitutional agreement was reached & signed between MARENA and the Caribbean Coast University of Nicaragua (URACCAN) in Bluefields and Puerto Cabezas. Besides, designated key actors representing these institutions established with members of the National System of Environmental Information (SINIA) a strategic working agenda facilitated by ABC Project that in a short term would create an organized administrative structure that includes the majority of key actors involved in biodiversity monitoring in the Caribbean Coast. Information regarding the design and creation of distribution of data may be obtained in the SIAR web page (www.siar.org).

A significant result was that of designing the decentralized Environmental Regional Monitoring of the Caribbean Coast of Nicaragua, supported by the signed agreement between local universities (URACCAN & BICU), FADCANIC and MARENA-ABC. In addition, ABC supported the functioning of an environmental monitoring consensus processes like that of the interinstitutional agreements that aided in accepting the environmental regional monitoring of the Atlantic Coast of Nicaragua.

2.3 COMPONENT III: Biodiversity Prioritized Areas

This component was designed to contribute in the long term to the biological sustainability of the ABC. Its goal was subordinated to the conservation of big areas of pristine or intact habitat connected for corridors relatively very well conserved. The main focuses of this component were: a) to strengthen the management and protection capabilities of the areas legally declared as Protected Areas inside the context of decentralization of the administration of Protected Areas of the Atlantic Regions, b) to promote the conservation and protection of the biodiversity outside of the legally Protected Areas, influencing the characteristics of the land use to a better management practices

2.3.1 RESULTS AND PRODUCTS: Biodiversity Prioritized Areas

General Department of Protected Areas in MARENA was supported with technical staff responsible for coordinating the process of administration of protected areas in both RAAN & RAAS within the methodology framework of ABC. In addition, the work plan for park guards was designed and supported in MARENA- RAAS, along with basic equipment and uniforms. Also, through constant capacity training they elevated their levels of knowledge in both theory & practical tools on protected areas administration.

Physical infrastructures were built in MARENA Delegation in Puerto Cabezas (219 mts²), a multiuse building for Waspám (570 mts²), Regional Information System Office in Bluefields (179 m²), and the refurbishing of Protected Areas Administrations office in Bluefields, Capacity Training & Library Center in Puerto Cabezas and five (5) Park guard houses, the refurbishing of the Multiuse Building in Waspám, Regional Delegation of MARENA.

It is worthy of mentioning that ABC Project supported MARENA'S Minister in lobbying to other key Ministries in approving the National Environmental Fund (FNA) and its regulation, which was approved through the October 15th/ 2001 Decree published in the official newspaper called La Gaceta – Diario Oficial. The FNA is a financial mechanism for capturing and allocating financial funds destined for environmental management mentioned in the National law of the Environment (1996) functioning ever since contributing to institutional developments for environmental

management in Nicaragua.

Through a highly participative process the Territorial Planning Proposal for Waspám Municipality was drafted along with Policies & Laws frame work for programs and related projects. On the other hand, capacity training was supported for local counterparts in RAAN & RAAS. The Waspám Mayor office officially approved the Strategy Plan, which is now a management tool for guiding programs in the municipality being a major achievement of ABC in RAAN.

Current analysis of Cayos Miskitos, Cerro Silva, Wawasháng, Waspám and priority communities were created. In addition, a participative process was held with key actors as to establish the protected areas limits. At the same time, management plans, execution schemes on those plans, co-management proposals database, communities development plans for each protected area, options and /or alternatives were validated. In addition, conservation status on connectivity between Wawasháng and Cerro Silva, biodiversity assessments (ecosystems, vegetation formations and wildlife presence), as well as, socio- economical and cultural values aimed at conservation were evaluated.

It is worthy mentioning that ABC project contributed by providing support to the Autonomous Governments on the creation of Natural Resources Secretariats (SERENA). Specifically for RAAS, funds were facilitated to strengthen the new office until reaching its first operations. The funds were in small quantities, but qualitatively were of significance since SERENA offices work in efforts to capture funds and to continue ABC project, as well as to carry out decentralization of administration tasks on behalf of protected areas with biodiversity components.

As a result of the communities development plans elaboration, a total, of 22 small projects of conservation and sustainable development of natural resources were executed. 9 of those, were carried out in the Southern Atlantic Autonomous Region (RAAS) and 13 ones in the Northern Atlantic Autonomous Region (RAAN). In the same context, 64 communities were benefited, 40 located in RAAS and 24 in RAAN. The objectives were focused on production systems strengthening, agro forestry system, rural tourism, fishing, biodiversity conservation, and municipality operations strengthening, specifically public environmental health. Also, as a result of those efforts on small projects implementations, several families raised their standard of living around core zones of protected areas, buffer zones, and interconnection areas; implementing sustainable production practices related to biodiversity conservation. In addition, capacity training was provided communities' personnel in the introduction of environmentally friendly technologies for agriculture production.

A major significant result was that of getting local nongovernmental organizations (NGOs) deeply involved in co-management of the small projects. In order to achieve that level of involvement, it was necessary to strengthen NGOs in technical and financial execution, creating better opportunities to manage funds in an efficient manner that may be captured from donors that require the same or higher control mechanisms on their contributions.

A relevant and significant result was that of creating the Regional Committees of small projects for both Autonomous Regions, which have the mandate to provide follow-up revisions and decisions, making on projects executions. Besides, these entities are also taken into consideration as actors in follow-up tasks and executions of yet additional investments programs for both regions. For instance, the Socio-Environment & Forestry Development Program (POSAF Fase II) funded by the IDB, is a concrete example of the above.

2.4 COMPONENT IV: Indigenous Communities Development

The objective of this component was to guide the promotion and development capacities of the indigenous communities, to focus in its fundamental problems related with the land tenure, and promoting the sustainable management of their natural resources. In the process, the communities were strengthened to a better system of organization respecting other traditional forms of organization. Particularly through this component, there were promoted actions focused on the security of the land, supporting the regional governments to design and adopt procedures for the regularization of the land tenure of the indigenous communities.

2.4.1 RESULTS AND PRODUCTS: Indigenous Communities Development

The MARENA- ABC project has promoted a series of integration policies for indigenous people into the national regulation systems, all of them aimed at recognizing and respecting territorial rights. The Political Constitution of 1987 and Autonomous Regional Atlantic law opened significant opportunities and new chances for these people to achieved complete control on land rights and natural resources management. Later in 1995, the constitutional reform enriched even further constitutional norms that deal with indigenous matters by introducing new concepts such as “ethnic, social, political pluralism for indigenous people”, terms that are now accepted in many countries and that have brought new sense to better ethnical groups treatment.

In this context, MARENA-ABC project support in major way the consultation and validation process for the Indigenous Communities Territorial Demarcation Law, right from the Bill phase in the Caribbean Coast and BOSAWAS. The Executive Branch introduced it in October 1998 and by 2000 the Bill was drafted on both regions RAAN & RAAS known as “Law on the Communal Property Regime of Indigenous People & Ethnical Communities of the Atlantic Coast, Bocay, Coco, Indio and Maiz rivers”.

In addition, ABC supported Regional Governments (RAAN & RAAS) in the process of Demarcation of Indigenous Lands, through workshops with Regional Councils, Indigenous Communities, drafting institutional normative and administrative procedures in the Demarcation and Land Title for Indigenous territories. Also, organization and operational support was provided to the National Commission for Demarcation and Title (CONADETI) and to the Intersectorial Commission of Demarcation and Title (CIDT) within the context of the Law 445 framework “Law on Communal Property Regime of Indigenous People & Ethnical Communities of the Caribbean Coast, Bocay, Coco, Indio and Maiz rivers”. Also, several ordinary and extraordinary meetings were held for the CIDT in RAAN and RAAS, in order to analyze the Demarcation request solicited by Indigenous Communities. In addition cartographic information and database on geographical information system for indigenous people of both RAAN and RAAS were created. Also, a database bank updated for advances on land demarcation and title land issues for RAAN & RAAS, were facilitated. During these processes, technical assistance by ABC was given to locals in creating the structure for community participation on management of the Cayos Miskitos

natural reserve in RAAN. Financial aid was also given to this process. In this context, technical maps for RAAN & RAAS were elaborated. With all this support the local communities started their own proposal for co-management, local constitutional organization draft, functions manual and responsibilities of its members.

It is also worthy of mentioning that ABC Project supported in obtaining the legal status of 24 indigenous organizations in RAAN and 5 organizations in RAAS, all with capacity trainings in social, administrative, technical, financial, land tenure legalization, natural resources management and biodiversity conservation aspects. This process was supported with training in topics such as; environmental and communities related conflicts solutions, indigenous leadership (community oriented), autonomous rights, basic indigenous rights, demarcation and land title issues according to Law 445, sustainable management of natural resources belonging to the communities (policies and environmental laws); bookkeeping, management and administration of natural resources of indigenous communities according to Law 445, women rights issues, community organizations with gender issues and sound economical management of household backyards.

In conclusion, the local organizations, indigenous communities and ethnical groups are better trained in managing natural resources and a healthy environment, as well as contributing in the creation of a proposal on territorial land planning of the autonomous regions with an updated modern information on studies and diagnostic evaluations aimed at planning & development of local regions.

2.5 COMPONENT V: Coordinating Project Office

The focal point of this component was to strengthen the administrative and financial issues for the effective execution of the project. The results were satisfactory since the execution of the operative plan was achieved; and during the process, the internal and external factors that impacted during its execution, were minimized and some practical solution to solve the problems were achieved. The training process to the personal of both regions about administrative and technical decentralization of the ABC project, according with the procedures of the World Bank and Nicaragua's government, were another key factor of great relevance.

2.5.1 RESULTS AND PRODUCTS: Coordinating Project Office

Stemming from the disaster inflicted by hurricane Mitch in October 1998 an extra component was added, that is the Emergency Assistance Program aimed at alleviating damages caused by hurricane Mitch in the Caribbean Region. The program consisted of restoring, reactivating, improving and transforming the socioeconomic infrastructure destroyed and/or damaged by the hurricane. With that objective in mind, the Central Government of Nicaragua in agreement with the World Bank reassigned to MARENA \$ 1.0 million USD from the funds originally destined to that component, which benefited 90 communities of indigenous people and farmers.

The ABC Project actively supported with technical assistance, the creation and fund raising of the Nicaragua/Honduras Corazón Transboundary Biosphere Reserve. With those efforts it was achieved the establishment of a technical group in coordinating tasks and financial aid through the World Bank for the PDF A. On the other hand, the ABC project has actively participated in getting UNESCO to consolidate and approve such a project (Nicaragua/Honduras Corazón Transboundary Biosphere Reserve Project). The elaboration of that project has enhanced the

local capacities in biodiversity management and natural resources, which in turn also contributes to the sustainable development on both countries and to the long-term sustainability

On the other hand, personnel in both regions were trained in administrative procedures and accompanied them also in decentralization techniques of the ABC project.

3. ASSESSMENT OF THE DEVELOPMENT OBJECTIVE, THE DESIGN AND QUALITY OF INITIAL STAGE

The global environmental objective was to promote in a long term, the integration of a biological corridor in key areas of the Caribbean of Nicaragua, conserving the valued global areas of the biodiversity. The Caribbean Coast of Nicaragua is biologically an extremely rich area in ecological regions and ecosystems of global importance; it is a critical link to the Mesoamerican Biological Corridor in Central America. It took in consideration the strategy of the country, and specifically the necessities of the Caribbean Coast, as well as the World Bank strategy to the establishment of the Mesoamerican Biological Corridor. The ABC contributed to the development of a framework of regional planning for the conservation and biodiversity management, at the same time contributed to the development policies, planning strategies tools and monitoring, to strengthen the regional, local governments and local organizations to manage the natural resources and the biodiversity.

The Atlantic Biological Corridor Project, contributed to the central government, regional governments, local organizations and communities acquired knowledge and practical tools, of environmental management, to develop a strategic planning process that guided them in a medium term to achieve sustainable development. In addition, the ABC contributed to those less fortunate families of the indigenous communities, in order to increase their incomes and at the same time protect the environment through the execution of natural resources small projects. However, although all these efforts, the indicators of diminishing or reverting the deforestation rate especially in the prioritized areas of biodiversity (protected areas) was partially achieved. This was because the historical analysis of changes in the land covering demonstrates that the deforestation rate and the agricultural frontier advancement have been intensified. This is because of the peace process that started in the nineties; the national government gave land parcels to the people of the former army around and inside the protected areas. This created developing agricultural poles, so that there were ideal conditions for bigger population to settled up in legally or illegally. On the other hand, because of the economic crisis of the country, the national and regional government didn't have enough funds for real protection of those areas.

The original design of the project didn't suffer a substantial revision, neither in their objectives nor on the proposed results, that was a revision only at the level of indicators, which had certain adjustments as product of the medium term evaluation, where it was concluded that some of them had been advanced less than was expected in terms to achieve a solid framework to reach the objectives of the project. This situation was basically because 28% of the funds project were conditioned for the approval of the law that regulates the regime of land property of the indigenous communities, and to the approval and operation of the Environmental National Fund (FNA). The Nicaraguan Government did not achieve both situations on time, so this created an obstacle for the execution of some activities. These factors were outside of the control of the project and of MARENA itself.

Due to the tardiness in the execution of the preconditions made by the World Bank to the Nicaragua Government, it was necessary to request an extension of the closing date of the

project. In order to implement the III and IV components, there was a modification especially to the established preconditions (the agreement was to execute the small subprojects without the fully operational status of the Environment National Fund). It can be inferred that although MARENA possessed good execution capacity, the established preconditions didn't depend entirely on MARENA, so that there was some tardiness in reaching some of the defined goals.

The execution quality of the project in the beginning of the implementation had a series of restrictive aspects, mainly because of the project centralization in Managua coordinating office, and lack of qualified personnel in both Autonomous Atlantic Regions. In addition, the political conditions of both regional governments delayed an effective appropriation. Also the continued changes of local authorities, made certain delays in some processes because it was necessary to repeat many times to the administrative and technical governmental staff the ABC concept and its strategy, limiting the executing capacity of the project coordinating office. However in the last three years of execution of the project, due to a crucial process of decentralization, carried out by the project coordinating office, the execution level increased. The training plan to the local personnel generated great capacity building. Thus, it is considered 90% in the achievement of the project results and indicators.

4. - SUSTAINABILITY

The planning instruments for regional, municipal and local development that were created and made official by the ABC project have started to be applied. Probably in the future it will influence in getting a major improvement in regional management with an imprinting of environmental emphasis on political decisions, both regional as well as local. The positive impact and its social sustainability will be appreciated in the medium term as the proper planning carries on by the political decision makers that would contribute to poverty alleviation and turn to diminish one of the major focus of pressure on natural resources and environment at the Caribbean Coast of Nicaragua.

The National Environmental Fund approval, as a tool that contribute to channeling resources will allow once it functions, that financial funds coming from different sources aimed at environmental management of Nicaragua will earmark money in a more efficient way in the Environmental Policy of Nicaragua, thus avoiding duplication of efforts and contradictions between the Environmental Policy of Nicaragua and actions coming from different projects and institutions.

Having included the Regional Development Plans of RAAN & RAAS into the National Strategy on Development established by the Government of Nicaragua with a long term vision, contributes to the proper use of development guidelines on natural resources management in the Caribbean Region and that in turn be considered as priorities through conservation clusters and sustainable use.

Capacity training generated by ABC has contributed in forming a great number of local indigenous technical staff, now in possession of powerful tools for conservation and sustainable management of biodiversity. On the other hand, Law 445 and the demarcation and land title issues supported by ABC that are contributing to indigenous people have assured their rights on ancestral land and consolidating the land tenure.

The management plans approved by local authorities (Councils & Local Commissions) serve as

the strategic base for planning in a correct way to manage of natural resources, promoting conservation on vast areas of the corridor and also allowing proper orientation to future investors.

The implementation of 22 small projects on strengthening productive systems, agro forestry systems, community- based tourism, fishing and biodiversity conservation, have strengthened the productive base and natural resources conservation in local communities having a strong positive impact on permanent incomes to the recipient communities, which contributes to diminishing the destruction of natural resources.

The Environmental monitoring network, the SIAR and the ABC monitoring plan have created a sustainable process based on the basic local institutions that carry that job such as the universities. The information created by the ABC has had important results in strategic areas, since those tools have been used in establishing the municipal development plans, investments plans, regional and local plans. Besides several communities plans have been taken into consideration and financed by other organizations contributing to the ABC project consolidation.

The institutionalization of strategic macro guidelines established by the ABC Project, added to the technical staff that worked for ABC, now working in the Regional Governments Offices, contributes to the continuation of main actions on conservation under the Biological Corridor concept.

ANNEX I: ACRONYMS

ABC	Atlantic Biological Corridor
BICU	Bluefields Indian Caribbean University
CCAD	Central American Environment and Development Commission
CONADETI	National Commission of Title and Demarcation
CIDT	Commission Intersectorial of Demarcation and Title
DGAP	General Direction of Protected areas
INAFOR	National Forest Institute
FADCANIC Nicaragua	Foundation for the Development of the Atlantic Coast of Nicaragua
FNA	National Environment Fund
GEF	Global Environment Facility
MARENA	Ministry of the Environment and Natural Resources
MBC	Mesoamerican Biological Corridor
NDF	Nordic Development Fund
NGO	Nongovernment Organization
PRODEP	Property Land Management Project
RAAN	North Atlantic Autonomous Region
RAAS	South Atlantic Autonomous Region
SIAR	National Environment Information System
SINAP	National System of Protected Areas
SINIA	National System of Environmental Information

Additional Annex 9. Map A1 - Natural Habitats of Nicaragua (IBRD-28754)



NICARAGUA ATLANTIC BIOLOGICAL CORRIDOR PROJECT (GEF) NATURAL HABITATS OF NICARAGUA

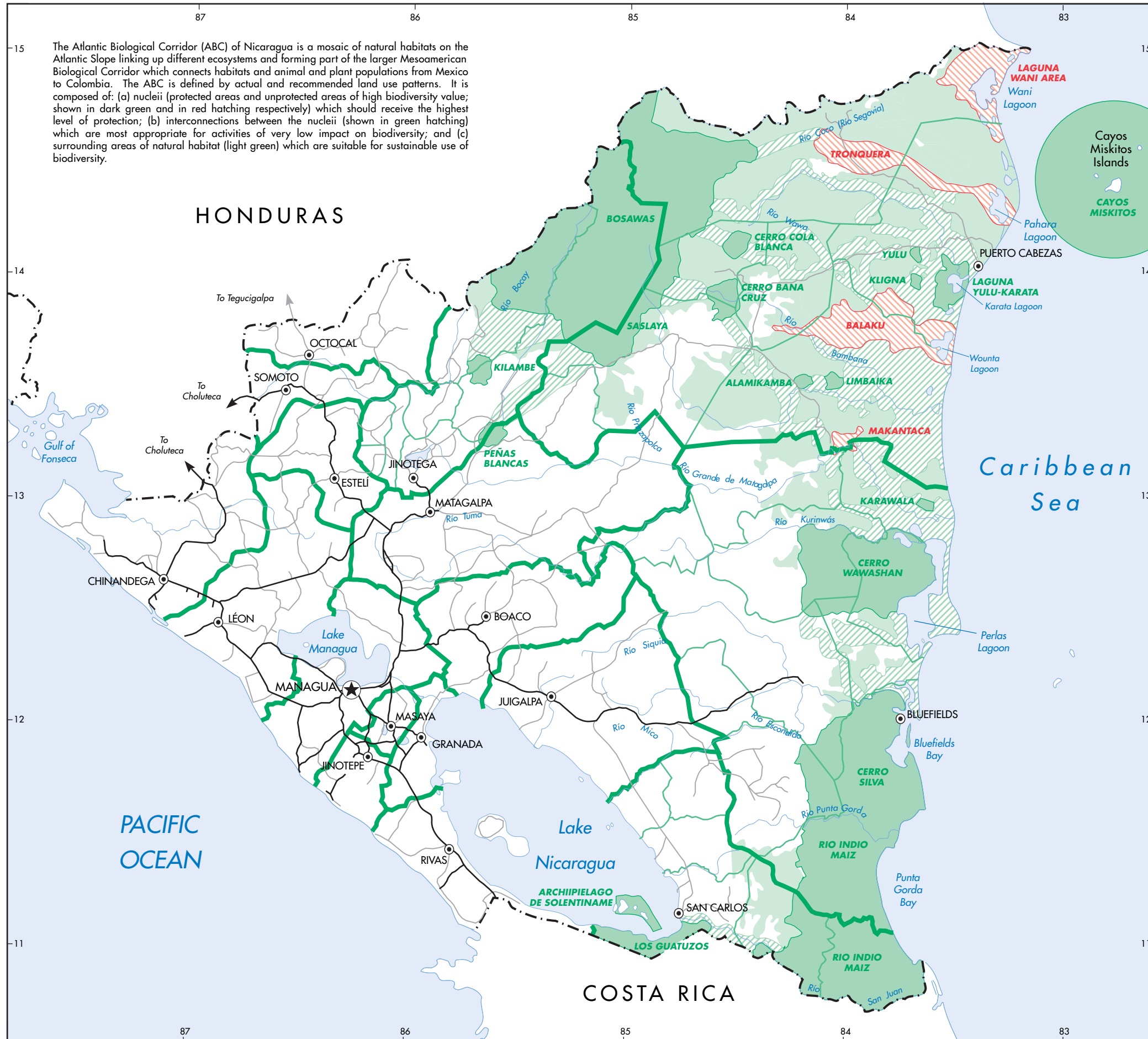
- MID ALTITUDE PINE/OAK FOREST
- TROPICAL BROADLEAF FOREST
- LOW ALTITUDE PINE SAVANNAH
- COASTAL WETLANDS
- CONVERTED HABITATS
- PAVED ROADS
- UNPAVED ROADS
- DEPARTMENT CAPITALS
- NATIONAL CAPITAL
- MUNICIPAL BOUNDARIES
- DEPARTMENT OR AUTONOMOUS REGION BOUNDARIES
- INTERNATIONAL BOUNDARIES
- AGGRESSIVE AGRICULTURAL FRONTIERS

0 20 40 60 80 100
KILOMETERS

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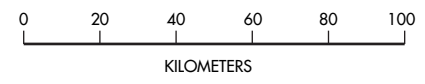
Additional Annex 10. Map A2 - Atlantic Biological Corridor Project (IBRD-28756)



The Atlantic Biological Corridor (ABC) of Nicaragua is a mosaic of natural habitats on the Atlantic Slope linking up different ecosystems and forming part of the larger Mesoamerican Biological Corridor which connects habitats and animal and plant populations from Mexico to Colombia. The ABC is defined by actual and recommended land use patterns. It is composed of: (a) nuclei (protected areas and unprotected areas of high biodiversity value; shown in dark green and in red hatching respectively) which should receive the highest level of protection; (b) interconnections between the nuclei (shown in green hatching) which are most appropriate for activities of very low impact on biodiversity; and (c) surrounding areas of natural habitat (light green) which are suitable for sustainable use of biodiversity.

NICARAGUA ATLANTIC BIOLOGICAL CORRIDOR PROJECT (GEF)

- PROTECTED AREAS
- UNPROTECTED AREAS:
- HIGH BIODIVERSITY VALUE AREAS
- INTERCONNECTIONS (VERY LOW IMPACT HUMAN USE)
- NATURAL HABITATS (LOW IMPACT HUMAN USE)
- PAVED ROADS
- UNPAVED ROADS
- DEPARTMENT CAPITALS
- ★ NATIONAL CAPITAL
- SELECTED MUNICIPAL BOUNDARIES
- DEPARTMENT OR AUTONOMOUS REGION BOUNDARIES
- INTERNATIONAL BOUNDARIES



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