



United Nations Development Programme
GLOBAL ENVIRONMENT FACILITY (GEF)

RECEIVED
UNDP
99 MAR 16 PM 2: 26
GEF SECRETARIAT

15 March 1999

Dear Mr. El-Ashry,

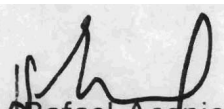
Subject: **RLA/97/G31/A/1G/99 - Establishment of a Programme to Consolidate the Mesoamerican Biological Corridor**

I am pleased to enclose the project document entitled: **RLA/97/G31/A/1G/99 - Establishment of a Programme to Consolidate the Mesoamerican Biological Corridor** which was approved by the GEF Executive Council in November 1997.

As per paragraph 29 and 30 of the GEF Project Cycle, we are submitting this project to you for circulation to the Executive Council Members for comments and, subsequently, for your final endorsement.

Thank you in advance for expediting the review and approval of this project.

Yours sincerely,


Rafael Asenjo
Executive Coordinator

Mr. Mohamed El-Ashry
Chief Executive Officer
Global Environment Facility
Room G6005
1776 G Street
Washington, D.C. 20433

1111

1111

at Nations Development Project
ORAL COMMUNITY (G)

1111

1111

1111

1111

1111

1111

1111

1111

PROJECT DOCUMENT

Establishment of a Programme for the Consolidation of the Mesoamerican Biological Corridor

(RLA/97/G31)

UNITED NATIONS DEVELOPMENT PROGRAMME

GLOBAL ENVIRONMENT FACILITY

Project of the Governments of

BELIZE, COSTA RICA, EL SALVADOR, GUATEMALA, HONDURAS, MEXICO, NICARAGUA, PANAMA

DOC

INTERGOVERNMENTAL ENVIRONMENTAL COOPERATION
(1987/88)

UNITED NATIONS DEPARTMENT OF ENVIRONMENT
GLOBAL ENVIRONMENT FACILITY
Project of the Government of
Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua

PROJECT DOCUMENT**1. IDENTIFIERS**

PROJECT NUMBER	RLA/97/G31																
PROJECT NAME	Establishment of a Programme for the Consolidation of the Mesoamerican Biological Corridor																
DURATION	6 years																
IMPLEMENTING AGENCY	United Nations Development Programme and United Nations Environment Programme																
EXECUTING AGENCY	Central American Commission for Environment and Development (CCAD)																
REQUESTING COUNTRIES	Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama																
ELIGIBILITY	Ratification of the Convention on Biological Diversity: <table><tr><td>Belize</td><td>Dec 12, 1993</td><td>Honduras</td><td>July 31, 1995</td></tr><tr><td>Costa Rica</td><td>Aug 26, 1994</td><td>Mexico</td><td>Mar 11, 1993</td></tr><tr><td>El Salvador</td><td>Sep 08, 1994</td><td>Nicaragua</td><td>Oct 27, 1995</td></tr><tr><td>Guatemala</td><td>Jul 10, 1995</td><td>Panama</td><td>Jan 17, 1995</td></tr></table>	Belize	Dec 12, 1993	Honduras	July 31, 1995	Costa Rica	Aug 26, 1994	Mexico	Mar 11, 1993	El Salvador	Sep 08, 1994	Nicaragua	Oct 27, 1995	Guatemala	Jul 10, 1995	Panama	Jan 17, 1995
Belize	Dec 12, 1993	Honduras	July 31, 1995														
Costa Rica	Aug 26, 1994	Mexico	Mar 11, 1993														
El Salvador	Sep 08, 1994	Nicaragua	Oct 27, 1995														
Guatemala	Jul 10, 1995	Panama	Jan 17, 1995														
GEF FOCAL AREA	Biodiversity																
GEF PROGRAMMING FRAMEWORK	Operational Program 3, Forest Ecosystems																

2. SUMMARY

The project will enhance the conservation of biodiversity in Central America and southern Mexico by establishing a *Programme for the Consolidation of the Mesoamerican Biological Corridor*. The MBC is a priority of the Central American Alliance for Sustainable Development and will consist of a network of protected areas and their buffer zones linked by biological corridors with a variety of uses and degrees of protection. This project will, over six years, build, integrate and initiate implementation of the basic components of the *Programme* by providing the technical assistance that will allow the governments and societies of Mesoamerican countries to jointly establish the MBC as a system integrating conservation and sustainable uses of biodiversity within the framework of economic development priorities over the medium to long term. At the end of the six-year life of this project, the *Programme* will consist of the institutional and stakeholder capacities and key structural elements, processes and products required to ensure the planning and management of the consolidation of the Mesoamerican Biological Corridor over the long-term.

3. COSTS AND FINANCING (MILLION US\$)

GEF:	Project:	10.600
	[of which administrative costs are: 0.309]	
	PDF B:	0.340
	Subtotal GEF:	10.940
Cofinancing:	DANIDA	6.000
	GTZ	1.717
	Government contributions (in-kind)	4.000
	Subtotal Cofinancing:	11.717
Total Project Costs (w/o PDF B):		22.317
Total Project Costs (w/ PDF B):		22.657

SECTION
ECT NA

DOY
EM/TH

Program
Program
for Bio

United Nations En
and American Co
Department (CAB)
R, Costa Rica, E
co, Nicaragua, P

The Commission on Biological Diversity
Dec 12, 1993 Honduras July 31, 1993
Aug 26, 1994 Mexico Mar 11, 1993
November 28, 1994
January 10, 1994

GER POCAL
GER POCAL

2. Summary

The project will
establishing a programme for the conservation of the biological diversity of the Central American region and will consist of a network of protected areas and their buffer zones linked by biological corridors with a view to the conservation of the region. This project will over the years build, improve and maintain implementation of the project that will allow the government to provide the technical assistance to jointly establish the network within the framework of the regional development programme for the region. At the end of the project, the government will have the necessary resources and products required to ensure the conservation of the biological diversity of the region.

10,000
0.310
10,000
6,000
1,117
8,000

Project
for which
HFE B
Second
DA/NI
GTS
Country

Project
Project

4. ASSOCIATED FINANCING (MILLION US\$) 7.900

Associated financing includes various initiatives aimed at improving regional cooperation for biodiversity conservation and are described in the Incremental Cost annex (Annex 2).

5. OPERATIONAL FOCAL POINT ENDORSEMENT

Country	Name	Organization	Date
Regional	Jorge Cabrera	CCAD, Executive Secretary	Aug. 25, 1997
Belize	Zenaida Moya	Ministry of Economic Development	Sept. 3, 1997
El Salvador	Cesar Funes Abrego	Ministry of Environment and Natural Resources	Sept. 10, 1997
Guatemala	Juan Francisco Asturias	National Commission for the Environment	Sept. 9, 1997
Honduras	Sergio A. Zelaya	Secretaria de Estado en los Despachos de Recursos Naturales y Ambiente	Sept. 7, 1997
Mexico	Javier de la Maza el Vira	National Institute of Ecology	Sept. 12, 1997
Nicaragua	Roberto Stadthagen Vogl	Ministry of Environment and Natural Resources	Sept. 3, 1997
Panama	Mirei Endara	National Institute for Renewable Natural Resources	Sept. 2, 1997

6. IMPLEMENTING AGENCY CONTACT

Nick Remple, Regional GEF Coordinator, Regional Bureau for Latin America and the Caribbean, UNDP,
One UN Plaza, New York, NY 10017
Tel: (212) 906 5426; Fax: (212) 906 6688; Email: nick.remples@undp.org

TABLE OF CONTENTS

Table of Contents	iv
List of Acronyms and Abbreviations	vi
A. CONTEXT	1
A.1 Description of subsector: Biodiversity in Mesoamerica	1
Geography and origin of the biological richness of the region	1
Biological richness in Mesoamerica	1
Principal ecosystems and associations in Mesoamerica	3
Areas in the region with the highest biodiversity	5
Protected areas of the region	5
Socioeconomic characteristics	8
A.2 Prior and Ongoing Assistance at the Regional and National Levels	8
A.3 Institutional Framework for Subsector and Existing Regional Strategies for Biodiversity Conservation ..	11
B. PROJECT JUSTIFICATION	19
B.1 Problems to be addressed: Threats to Biodiversity	19
B.2 Expected end of project situation	26
B.3 Target beneficiaries	28
B.4 Project strategy and implementation arrangements	29
Project Concept and Strategy	29
Implementation Arrangements	30
B.5 Reasons for assistance	33
B.6 Special considerations: Participation and Sustainability	34
B.7 Coordination arrangements	35
B.8 Counterpart support capacity	36
C. PURPOSE AND GENERAL OBJECTIVES	38
D. IMMEDIATE OBJECTIVES, OUTPUTS AND ACTIVITIES	38
Immediate objective 1: Program coordination and strategic planning	38
Immediate objective 2: Resource mobilization for the consolidation of the MBC	40
Immediate objective 3: Information and monitoring	43
Immediate objective 4: Capacity building and intra-regional exchanges	46
Immediate objective 5: Participation, public awareness and expansion	49
Immediate objective 6: Policy harmonization	51
E. INPUTS	54
F. RISKS	57
G. PRIOR OBLIGATIONS AND PREREQUISITES	58
H. PROJECT REVIEW, REPORTING AND EVALUATIONS	58
I. LEGAL CONTEXT	60
J. BUDGETS	61

TABLE OF CONTENTS

VI

1.1 Description of subject: Biodiversity is a fundamental concept and one of the biological sciences of the 21st century.

1.2 Objectives of the project: To develop a comprehensive understanding of the biodiversity of the region and to identify the threats to its conservation.

1.3 Methodology: The project will be carried out in three phases: (i) Data collection, (ii) Data analysis, and (iii) Report writing.

1.4 Project justification: The project is justified as it will provide valuable information on the biodiversity of the region and will help in the development of conservation strategies.

1.5 Project organization: The project will be organized into three main sections: (i) Introduction, (ii) Methodology, and (iii) Results and Discussion.

1.6 Project timeline: The project will be completed within a period of six months.

1.7 Project budget: The project budget is estimated to be Rs. 10,00,000.

1.8 Project risks: The project risks are low as the project is well-planned and the data collection is straightforward.

1.9 Project conclusion: The project will provide valuable information on the biodiversity of the region and will help in the development of conservation strategies.

1.10 Project references: The project references are listed in the bibliography.

1.11 Project appendix: The project appendix contains the detailed methodology and the data collection schedule.

1.12 Project glossary: The project glossary defines the key terms used in the project.

1.13 Project index: The project index provides a quick reference to the various sections of the project.

1.14 Project acknowledgments: The project acknowledgments thank the various individuals and organizations who have supported the project.

1.15 Project disclaimer: The project disclaimer states that the project is not intended to be used for any commercial purpose.

1.16 Project copyright: The project copyright is reserved by the project team.

1.17 Project contact information: The project contact information is provided at the end of the project.

K. ANNEXES.....	A-1
Annex 1	
Resolutions adopted at the XIX Central American Presidential Summit.....	A-2
Annex 2	
Incremental cost analysis	A-5
Incremental Cost Matrix:	A-12
Annex 3	
Project Planning Matrix	A-15
Annex 4	
Lessons Learned During Implementation of PDF B.....	A-22
Annex 5	
Monitoring and Evaluation plan (UNDP/UNEP).....	A-24
Annex 6	
Schedule for Review, Reporting and Evaluation of Project Activities	A-26
Annex 7	
Training Strategy	A-27
Annex 8	
Equipment Needs.....	A-29
Annex 9	
Subcontracts - Preliminary Description	A-30
Annex 10	
Terms of Reference for Project Personnel	A-36
Annex 11	
Terms of Reference for Project Steering Committee, Consultative Group, Technical Advisory Group	A-46
Annex 12	
List Of Key Contacts	A-48
Annex 13	
Preliminary Work Plan	A-51
Annex 14	
Completed, On-going and Planned GEF and non-GEF Initiatives Associated with the MBC	A-61

Annex 1	Resolutions adopted at the XIX Council Assembly (November 2000)	
Annex 2	Interim cost analysis	
Annex 3	Interim Cost Analysis	
Annex 4	Project Planning Matrix	
Annex 5	Lessons Learned During Implementation	
Annex 6	Monitoring and Evaluation Plan (M&E Plan)	
Annex 7	Table for Review, Report	
Annex 8	Training Strategy	
Annex 9	Project Needs	
Annex 10	Subsistence - Preliminary Description	
Annex 11	Terms of Reference for Project Preparation	
Annex 12	Terms of Reference for Project Implementation	
Annex 13	List of Key Contacts	
Annex 14	Preliminary Work Plan	
Annex 15	Completed On-going and	
Annex 16	and ongoing	
Annex 17	and ongoing	
Annex 18	and ongoing	
Annex 19	and ongoing	
Annex 20	and ongoing	
Annex 21	and ongoing	
Annex 22	and ongoing	
Annex 23	and ongoing	
Annex 24	and ongoing	
Annex 25	and ongoing	
Annex 26	and ongoing	
Annex 27	and ongoing	
Annex 28	and ongoing	
Annex 29	and ongoing	
Annex 30	and ongoing	
Annex 31	and ongoing	
Annex 32	and ongoing	
Annex 33	and ongoing	
Annex 34	and ongoing	
Annex 35	and ongoing	
Annex 36	and ongoing	
Annex 37	and ongoing	
Annex 38	and ongoing	
Annex 39	and ongoing	
Annex 40	and ongoing	
Annex 41	and ongoing	
Annex 42	and ongoing	
Annex 43	and ongoing	
Annex 44	and ongoing	
Annex 45	and ongoing	
Annex 46	and ongoing	
Annex 47	and ongoing	
Annex 48	and ongoing	
Annex 49	and ongoing	
Annex 50	and ongoing	
Annex 51	and ongoing	
Annex 52	and ongoing	
Annex 53	and ongoing	
Annex 54	and ongoing	
Annex 55	and ongoing	
Annex 56	and ongoing	
Annex 57	and ongoing	
Annex 58	and ongoing	
Annex 59	and ongoing	
Annex 60	and ongoing	
Annex 61	and ongoing	
Annex 62	and ongoing	
Annex 63	and ongoing	
Annex 64	and ongoing	
Annex 65	and ongoing	
Annex 66	and ongoing	
Annex 67	and ongoing	
Annex 68	and ongoing	
Annex 69	and ongoing	
Annex 70	and ongoing	
Annex 71	and ongoing	
Annex 72	and ongoing	
Annex 73	and ongoing	
Annex 74	and ongoing	
Annex 75	and ongoing	
Annex 76	and ongoing	
Annex 77	and ongoing	
Annex 78	and ongoing	
Annex 79	and ongoing	
Annex 80	and ongoing	
Annex 81	and ongoing	
Annex 82	and ongoing	
Annex 83	and ongoing	
Annex 84	and ongoing	
Annex 85	and ongoing	
Annex 86	and ongoing	
Annex 87	and ongoing	
Annex 88	and ongoing	
Annex 89	and ongoing	
Annex 90	and ongoing	
Annex 91	and ongoing	
Annex 92	and ongoing	
Annex 93	and ongoing	
Annex 94	and ongoing	
Annex 95	and ongoing	
Annex 96	and ongoing	
Annex 97	and ongoing	
Annex 98	and ongoing	
Annex 99	and ongoing	
Annex 100	and ongoing	

Annex 101

Annex 102

Annex 103

Annex 104

Annex 105

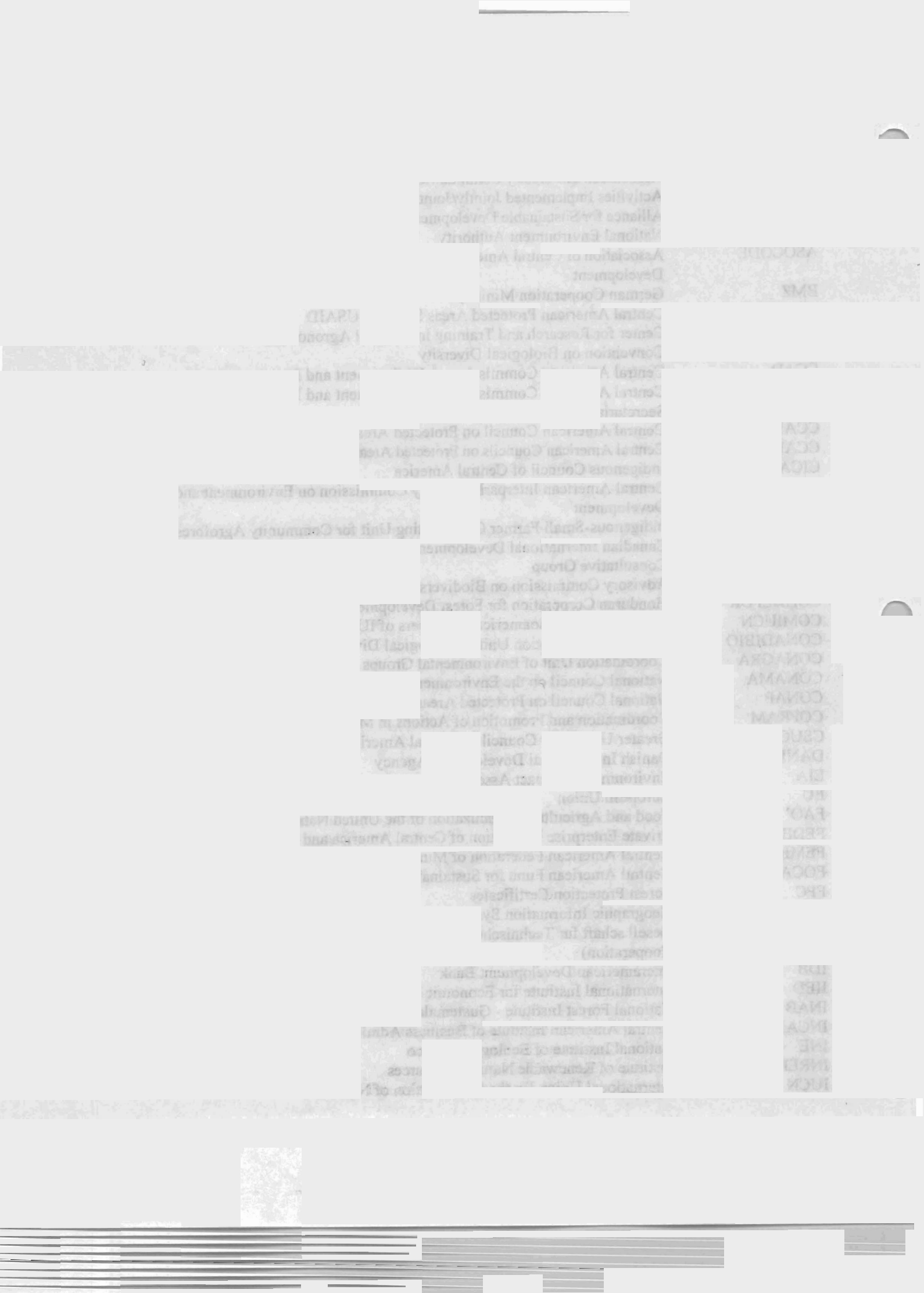
Annex 106

Annex 107

Annex 108

LIST OF ACRONYMS AND ABBREVIATIONS

ACOFOP	Association of Forestry Communities of the Peten
AIJ / JI	Activities Implemented Jointly/Joint Implementation
ALIDES	Alliance for Sustainable Development
ANAM	National Environment Authority
ASOCODE	Association of Central American Peasant Organizations for Cooperation and Development
BMZ	German Cooperation Ministry
CAPAS	Central American Protected Areas System - USAID
CATIE	Center for Research and Training in Tropical Agronomy
CBD	Convention on Biological Diversity
CCAD	Central American Commission on Environment and Development
CCAD-ES	Central American Commission on Environment and Development – Environment Secretariat
CCAP	Central American Council on Protected Areas
CCAP-AB	Central American Councils on Protected Areas and Forests
CICA	Indigenous Council of Central America
CICAD	Central American Interparliamentary Commission on Environment and Development
CICAFOC	Indigenous-Small Farmer Coordinating Unit for Community Agroforestry
CIDA	Canadian International Development Agency
CG	Consultative Group
COABIO	Advisory Commission on Biodiversity
COHDEFOR	Honduran Corporation for Forest Development
COMIUCN	Committee of Mesoamerican Members of IUCN
CONADIBIO	National Coordination Unit of Biological Diversity
CONAGRA	Coordination Unit of Environmental Groups
CONAMA	National Council on the Environment
CONAP	National Council on Protected Areas
COPRAM	Coordination and Promotion of Actions in Marginal Areas
CSUCA	Greater University Council of Central America
DANIDA	Danish International Development Agency
EIA	Environmental Impact Assessment
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FEDEPRICAP	Private Enterprise Federation of Central America and Panama
FEMICA	Central American Federation of Municipalities
FOCADES	Central American Fund for Sustainable Development
FPC	Forest Protection Certificates
GIS	Geographic Information System
GTZ	Gesellschaft für Technische Zusammenarbeit (German Agency for Technical Cooperation)
IDB	Interamerican Development Bank
IIED	International Institute for Economic Development
INAB	National Forest Institute - Guatemala
INCAE	Central American Institute of Business Administration
INE	National Institute of Ecology - Mexico
INRENARE	Institute of Renewable Natural Resources
IUCN	International Union for the Conservation of Nature



MARENA	Ministry of the Environment and Natural Resources - Nicaragua
MARN	Ministry of the Environment and Natural Resources – El Salvador
MBC	Mesoamerican Biological Corridor
MINAE	Ministry of Environment and Energy – Costa Rica
MINREC	Ministry of Natural Resources - Belize
NOAA	National Oceanic and Atmospheric Administration
OCIC	Costa Rican Office for Joint Implementation
ORMA	Regional Office for Mesoamerica - IUCN
PACT	Protected Areas Conservation Trust
PAGEBOCA	Support to Communal Forest Management in Central America
PROARCA	Environmental Program for the Central American Region - USAID
PROCAFOR	Regional Forest Program of Central America
ROCU	Regional Operations Coordinating Unit
ROLAC-MEXICO	UNEP Regional Office for Latin America and the Caribbean
SEMARNAP	Secretariat of Environment, Natural Resources and Fisheries
SICA	Central American Integration System
SICAP	Central American System of Protected Areas
SIGAP	Guatemalan System of Protected Areas
SINADES	National System of Sustainable Development
SITCA	Tourism Integration Secretariat of Central America
TAG	Technical Advisory Group
TNC	The Nature Conservancy
UNEP-OAS	United Nations Environment Programme-Organization of American States
USAID	United States Agency for International Development
WB	World Bank
WCS	Wildlife Conservation Society
WRI	World Resources Institute
WWF	World Wildlife Fund

Ministry of the Environment and Natural Resources
Biosphere Reserve
Ministry of Environment and Energy - Costa Rica
Ministry of Natural Resources - Belize
National Oceanic and Atmospheric Administration
Forest Plans Office for Latin American

Regional Office for Management
Protected Areas Conservation Trust
Support to Community Forest Management
Environmental Program for the Central American
Regional Forest Program of Central America
Regional Operations Coordinator
UNEP Regional Office for Latin America and the Caribbean
Secretariat of Environment, Natural Resources and Forestry
Central American Integration System
Central American System of Protected Areas
Caribbean System of Protected Areas
National System of Sustainable Development

Country Integration Secretariat
Technical Advisory Group
The Nature Conservancy
United Nations Environment Programme
United Nations Development Programme

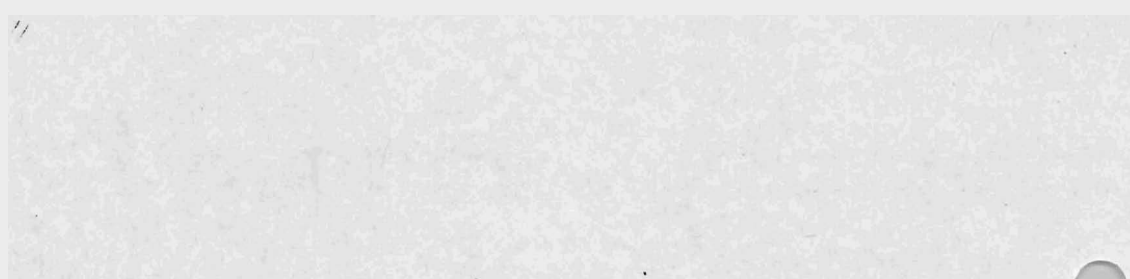
World Conservation Union
World Resources
World Wildlife Fund

WRI
WWF
WCS

WRI
WWF
WCS
WRI
WWF
WCS

WRI
WWF
WCS
WRI
WWF
WCS

WRI
WWF
WCS



A. CONTEXT

A.1 DESCRIPTION OF SUBSECTOR: BIODIVERSITY IN MESOAMERICA

Geography and origin of the biological richness of the region

1. The Mesoamerican region is comprised of the seven Central American countries - Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama - and the five southernmost states of Mexico (Campeche, Chiapas, Quintana Roo, Tabasco, and Yucatan). It constitutes a land area of approximately 768,000 square kilometers - corresponding to 0.51% of global emerged lands - harboring 7 to 8% of the earth's biodiversity.

2. This is a region of great geologic, geographic, climatic and biotic diversity. From the geographic perspective, the region possesses mountain systems which emerged 5 to 15 million years ago, including those of volcanic origin; alluvial plains (the largest being the plain running from eastern Honduras to northern Costa Rica, generally from the tertiary period), calcareous plateaus (Yucatan being the largest), and karstic highlands (principally in Guatemala and Chiapas). The volcanic mountain chain running along the Pacific coast of Central America is part of the Pacific Ring of Fire.

3. Mesoamerica is located between 8° and 23° north latitude, hence the region belongs to the intertropical world. The presence of two oceans, the narrowness of the isthmus, the existence of large mountain chains with peaks such as the Tajumulco Volcano (4,211 meters) in Guatemala, the effect of hurricanes and trade winds that come from the north, among other factors, give rise to a large diversity of microclimates. For example, average precipitation varies from 500 to more than 7,000 millimeters per year across Central America; the average temperature ranges from a minimum of 7.5 C° to a maximum of 32.5 C°.

4. From the biotic perspective, it is important to note that from the moment that the isthmus was established, species moved freely in both directions and the region became an important biological bridge between two continents. This fact and the existence of a great variety of climates and microclimates and landscape forms gave rise to the region's extraordinary biological diversity.

Biological richness in Mesoamerica

5. As a region, Mesoamerica constitutes a narrow strip of land joining the biogeographic kingdoms of the Nearctic (North America) and the Neotropic (South America). For classification purposes, this area is included within the Neotropical realm, but because it serves as a land connection with North America it has Nearctic characteristics. It acts as a bridge that filters the path of many organisms, and it is a barrier between two oceans - the Caribbean and the Pacific - for marine species.

6. The great diversity of biological organisms in Mesoamerica stems from the fact that the region serves as a narrow bridge between two continental masses - North and South America - and contains a vast variety of landscape forms, such as lakes, lagoons, mountain ranges, valleys, plains, gulfs, islands, coral reefs, caves, sandy beaches, cliffs and estuaries.

7. The natural richness of Central America becomes clear when considering that in this small land area there are 3 biomes, 20 life-zones, 33 ecoregions, more than 60 plant formations and up to 350 landscape forms ranging from cloud forests with rainfall greater than 7,500 mm to thornscrub in semiarid areas where the rainfall reaches only 400 mm. Based on the information provided by *Mesoamerican Flora*, the diversity of botanical families is particularly high inasmuch North and South American flora meet and overlap in this Region.

8. Central America, with 500,000 square kilometers, contains 18,000 - 20,000 plant species whereas the United States, with 9.4 million square kilometers, contains only 22,000 species by comparison. Moreover, Vavilov considered Mexico and Central America as one of the most important worldwide centres of crop genetic diversity for bean, corn, pumpkin (ayote), cocoa, tomato, cotton, chili, forage legumes and other species. Their conservation is particularly important to improve resistance and quality of the agricultural crops derived from these native species.

9. Diversity and number of endemic species of plants and animals is illustrated with the following specific examples. Panama has more avian species (929) than Canada and the United States combined and more plant species - about 9,000 of vascular plants - than Europe (Gentry, 1982). Belize, with a surface area of 22,965 square kilometers, contains more than 150 species of mammals, 540 species of birds and 151 species of amphibians and reptiles (PFB, 1995). Costa Rica - smaller than Denmark - is comprised of 55 distinct biotic units containing more than 365,000 species of arthropods. Nicaragua has more than 800 species of orchids divided into 150 genera in the highlands of the north-central part of the country. In the highlands of Guatemala, up to 70% of the vascular flora is endemic (D'Arcy, 1977).

10. The level of endemism in the region is high. Flores-Villela and Gerez (1989) presented an interesting comparative study between the United States and Central America regarding endemic plants and vertebrates, fish excluded. The United States covers an area of 9.4 million square kilometers containing 3,186 endemic plants and 191 endemic vertebrates, whereas Central America, with 0.51 million square kilometers, contains 4,715 endemic plants and 451 endemic vertebrates. At the country level, Guatemala possesses 8,000 species of vascular plants with approximately 1,000 of them endemic - this includes 527 orchid species of which 57 are endemic.

11. In the Guatemalan high mountains, up to 70% of vascular plants are endemic (D'Arcy, 1977; Davis, 1986). In the Talamanca mountain range, between Costa Rica and Panama a high level of endemism exists among hummingbirds (Ugalde, 1994) and in the highlands of Darien National Park in Panama - an area of 579,000 hectares - there are 15 endemic species of birds (INRENARE, 1989).

12. Endemic species can be distributed in large areas of the countries in question or in special locations. For example, the tree *Pata de Palomo* (*Quetzalia reynae*) is found only in the Montecristo cloud forest in El Salvador (Reyna, 1996); a frog species *Rana myadis* has been found only on Little Corn Island, on the Atlantic coast of Nicaragua (Cardenal, 1993, García, 2006a).

13. Many areas of endemism for birds, amphibians and reptiles are found in Central America. The Yucatan Peninsula, the highlands of Guatemala and Honduras, the Pacific coast between Honduras and northern Costa Rica, the highlands of Costa Rica, the southern Pacific coast in Costa Rica and the Darién are areas of endemism for amphibians and reptiles of the region. Likewise, the ICBP found that the main areas of endemism for Heliconiine and Ithominiine butterflies in the region are found in the highlands of Guatemala and the southern part of the Yucatan Peninsula, the Pacific coast of Guatemala and Honduras, the Pacific coast of Costa Rica (south of the Gulf of Nicoya) and northern Panama, and southern Panama (between the Canal and Darién) (ICBP, 1992).

14. According to the Smithsonian Migratory Bird Center, Central America shelters many migratory birds during a six to nine month period each year. Estimates of the number of birds crossing this land bridge indicate that each autumn between two and five million birds migrate from North America, many of them remaining in Mexico and the West Indies, a small number flying without stopping to South America, and the remainder, about one third, staying in the Central American isthmus or crossing it during the winter on the way to South America.

15. The distribution of species within the region of flora and fauna from North and South America is worth noting. The Sierra Madre in the Guatemalan western plateau is home to *Abies guatemalensis*, the fir species with the most southern distribution in the entire American continent (Greenpeace, 1996); the

basin of Lake Nicaragua is the southern limit for the gaspar fish (*Atroctosteu tropicus*) (Bussing, 1987); the sierras of Dipilto and Jalapa in the north central region of Nicaragua are the southernmost limit of the *Pinus* genus in Central America (Incer, 1996) and sloths, of South American origin, are found in Honduras (with three toes, *Bradypus variegatus*) and Nicaragua (with two toes, *Choloepus hoffmanni*) representing their southernmost distribution (Macdonald, 1984).

Principal ecosystems and associations in Mesoamerica

Marine-coastal ecosystems

16. **Mangroves:** The region's largest mangroves and those with the greatest diversity are found along the Pacific coast. Mangroves with the greatest conservation potential are found in Panama. The mangroves of the Gulfs of San Miguel and Chiriqui cover 46,000 and 44,000 hectares respectively (Tovar, 1996). Along the Caribbean coast, the largest and best-conserved mangroves are part of the Mesoamerican Coast and Coral Reef System (the largest portion located in Belize).

17. **Turtle Beaches:** The most important beaches for turtle nesting in the region for the following six (6) species are: *Chelonia mydas*: Tortuguero National Park in Costa Rica (Caribbean); *Chelonia agassizi*: several beaches in Chiapas, Mexico (Pacific); *Caretta caretta*: near Boca Paila in Yucatan (Caribbean); *Eretmochelys imbricata*: Zapatilla Cay and San Blas islands in Panama (Caribbean); *Lepidochelys olivacea*: Santa Rosa National Park in Costa Rica (Pacific); *Dermochelys coriacea*: Las Baulas National Park in Costa Rica (Pacific) (Sternberg, 1981; Boza, 1992).

18. **Coral Reefs:** The Coral Reef System along Mexico, Belize, Guatemala and Honduras, with a length of 110 kilometers, is the most important in the Caribbean coast and the second longest barrier reef system in the world. There are also coral formations in the Miskito Cays, Nicaragua, and in Bocas del Toro, Panama. The Pacific coral reefs are shorter and are not true coral barriers.

Wetlands

19. There are several important wetlands in the Mesoamerican region. Some of them have been recognized as wetlands of international importance under the RAMSAR Convention (both of fresh and salt water). Many of them are listed as protected areas: Laguna del Tigre in Guatemala; Barra de Cuero and Salado in Honduras; Los Guatuzos in Nicaragua; Palo Verde and Terraba-Sierpe in Costa Rica; Punta Patiño in Panama, among others.

Rain Forests

20. Rain forests occupy a large area along the Atlantic coast, from the Selva Lacandona in Mexico and the Peten, in Guatemala to the Darién in Panama. They are also found along the Pacific coast between southern Costa Rica and northern Panama and in the peninsula of Azuero in Panama. These forests are found from altitudes ranging from sea level to altitudes of 1,500 meters, and may receive 2,000 to 6,000 mm of rain annually. They are characterized by abundant vegetation, with trees reaching 40-50 meters in height with the dominants rising 60 to 70 meters. Some authors divide these forests into lowland tropical forests and pre-montane forests, i.e., those located from 600-800 to 1,500 meters.

21. The most common trees found are Cedro Macho (*Carapa guianensis*), María (*Calophyllum brasiliense*), Pilón (*Hieronyma archorneoides*), Cuipo (*Cavanillesia platanifolia*), Ceiba (*Ceiba pentandra*), Chicozapote (*Manilkara zapota*), Guayabón (*Terminalia amazonica*), Caoba (*Swietenia macrophylla*), and Espavel (*Anacardium excelsum*). The understory is composed of ferns, palms, lianas, bamboo, herbs, epiphytes (including orchids and bromeliads), climbers, heliconias, shrubs and other plants.

Dry Forests

22. Dry forests are principally located along the Pacific coast, although they may also be found along the Atlantic coast of Yucatan, Guatemala and Honduras. The main climatic characteristic of the dry forest is that the dry season lasts from 6 to 8 months, and they receive 600 to 1,500 mm of rain annually. The vegetation is deciduous, shorter, often thorny, and less diverse than the rainforest.

23. Some of the most conspicuous species are cactus, succulent plants (agaves) and terrestrial bromeliads. Among the tree species found are the Guanacaste (*Enterolobium cyclocarpum*), the Pochote (*Bombacopsis quinatum*), the Indio Desnudo (*Bursera simaruba*) and the Roble de Sabana (*Tabebuia rosea*). In open areas the following are abundant species: Raspaguacal (*Curatella americana*), Jícaro (*Crescentia alata*), Cornizuelo (*Acacia collinsii*) and Nance (*Byrsonima crassifolia*) (Boza, 1992; Incer, 1996; Reyna, 1996, Tovar, 1996).

Cloud Forests

24. Cloud forests are located between 1,500 and 3,300 meters and receive between 3,000 and 4,000 mm of precipitation annually. As the name indicates, clouds frequently cover them. Water condensing on the foliage maintains high humidity and favors the diversity of moss, lichen, liverwort, ferns, palms and epiphytes. The cloud forests of northern Mesoamerica contain a great variety of conifer species such as Pines (*Pinus spp.*) - about 10 species - Firs (*Abies guatemalensis*), Cypressess (*Cupressus lusitanica*) and Ahuehuetes (*Taxodium mucronatum*). In southern Mesoamerica, the only conifer species found are the Ciprecillo (*Podocarpus spp.*), though there are 6 species of Oak trees. Other important tree species found in cloud forests are the Tirrá (*Ulmus mexicana*), the Aguacatillos (*Nectandra spp.* and *Ocotea spp.*), the Liquidambar (*Liquidambar styraciflua*), the Jaúl (*Alnus arguta*), the Magnolias (*Magnolia spp.*) and the Chachaca (*Drimys granadensis*).

Pine Forests

25. Pine forests extend from Mexico, Guatemala and Belize into the central region of Nicaragua. They are found in specific locations along the Atlantic coast (crossing the cloud forest) and in large areas of central Guatemala and Honduras and in north central Nicaragua. These are open forests in shallow, acidic, low-fertility, siliceous soils with poor drainage (Archapa & Marineros, 1996). In the pine forests of the coastal areas, *Pinus caribaea* var. *hondurensis* is the predominant species with isolated examples of other trees. In the valleys and central highlands, pines form almost pure stands, in which cases the predominant species are *Pinus ayacahuite*, *P. hartewii*, *P. rudis*, *P. maximinoi*, *P. oocarpa* and *P. patula* subsp. *tecunumanni*. They are associated with oak species like (*Quercus spp.*), firs (*Abies guatemalensis*) cypresses (*Cupressus lusitanica*) and junipers (*Juniperus mexicana*). In Nicaragua, coastal pines are intersected by gallery forests where a high degree of biological diversity is found (Incer, 1996).

Subtype of ecosystems or associations

26. In Mesoamerica, there are countless subtypes or associations covering small or medium-sized areas within other ecosystems. Some of these include coastal associations growing on sand along the Atlantic coast comprised of Gramineas, Ciperaceas and Cocotero (*Cocos nucifera*); swamps of Mesquite-Nacascot (*Prosopis juliflora*-*Caesalpinia coriaria*) in the Costa Rican dry forests, the tintales (*Haematoxylum campechianum*) in the rain forests of Peten in Guatemala; forests of Palma Sabal (*Sabal mayarum*) in the rain forests of Peten in Guatemala; oak forests (*Quercus costarricensis* and *Q. copeyensis*) in the Costa Rican cloud forests; pure stands of *Podocarpus sp.* in the Altos de Campana National Park in Panama; and even areas that have suffered the effect of lava and ash deposition.

Areas in the region with the highest biodiversity

27. The Mesoamerican region has at least 20 areas of exceptional significance for the conservation of biodiversity of global importance. These are protected areas and/or groups of protected areas, currently in place or under planning, the management of which will result in the conservation of up to 75% of the region's important biodiversity. These sites range in size from 100,000 hectares to 2 million hectares.

28. The sites, many of them transboundary, are:

- Sian Ka'an Biosphere Reserve, México
- Selva Maya (Maya and Calakmul Biosphere Reserves), México and Guatemala
- Montes Azules Biosphere Reserve, Mexico
- Sierra de las Minas Biosphere Reserve, Guatemala
- Mesoamerican Coral Reef System, Mexico, Belize, Guatemala and Honduras
- Maya Mountains, Belize
- Cuchumatanes-Bisis, Guatemala
- Pico Bonito National Park, Honduras
- Platano River – Tawaska – Patuca River - BOSAWAS, Honduras and Nicaragua
- SI-A-PAZ, Nicaragua (Indio Maiz Reserve) and Tortuguero National Park, Costa Rica
- Guanacaste Conservation Area, Costa Rica
- Arenal Conservation Area, Costa Rica
- Central Cordillera Volcánica Conservation Area, Costa Rica
- La Amistad Biosphere Reserve, Costa Rica and Panama
- Osa Conservation Area, Costa Rica
- Bocas del Toro and El Cope National Parks, Panama
- Protected Areas in the Interoceanic Region of the Panama Canal, Panamá
- Darien National Park and other Protected Areas in Darién, Panamá

29. There are also other smaller protected areas, in some cases covering as few as a hundred hectares, that although small in size contain sites or habitats that hold regionally and/or globally significant biodiversity. It has been estimated that these areas protect about 15% of the region's globally significant biodiversity.

30. These protected areas are located in Central Chiapas in Mexico; the area of Manchon-Guamuchal in Guatemala; the Cerro Verde National Park in El Salvador; La Muralla National Park and Yojoa Lake in Honduras; the Masaya Volcano National Park and Lake Nicaragua in Nicaragua; the Isla del Coco National Park and the Tempisque Conservation Area in Costa Rica; and the Isla Coiba National Park and the eastern end of the Azuero peninsula in Panama.

31. Dinerstein et al. (1995) emphasized the urgent need to implement conservation measures to protect many of the ecoregions already mentioned. Of the 33 ecoregions found in Mesoamerica; the conservation status of eleven of them are considered to be in a critical state with an equal number rated as endangered. After the northern Andes, Mesoamerica is the most threatened region of this hemisphere.

Protected areas of the region

32. During the last thirty years, the countries of the Mesoamerican region have made a considerable effort to conserve the biodiversity of the region. To date, 420 protected areas have been declared. Belize has the highest percentage of its territory under some type of protected status followed by Panama, Costa Rica, Guatemala, Nicaragua, Mexico, Honduras and El Salvador. In addition, the countries of the region have made a serious commitment to declare at least 313 more protected areas with Guatemala, Honduras

and Nicaragua having the greatest potential for increasing the size of their respective protected area systems. The table below summarizes the number and land area coverage of protected areas in the region.

TABLE 1
Number, Land Area and Percentage of Territory under Protected Areas in the Countries of Mesoamerica
(1997)

Country	No. of Protected Areas	Land Area (Ha)	% of the Country	Additional comments
Belize	54	1,967,000	35.1	Belize has the largest proportion of its land area under protected status with a focus on biodiversity conservation in these areas. Belize has also placed great value on the conservation of its marine resources.
Costa Rica	126	1,555,600	30.5	After Belize, Costa Rica has the greatest proportion of its territory designated as protected with the largest number of areas legally established in the region. Almost half of the protected areas correspond to IUCN categories I and II.
El Salvador	4	9,100	0.4	El Salvador has the protected areas of smallest size and thus is most interested in landscape restoration with systems that preserve agrobiodiversity.
Guatemala	48	2,061,400	19.0	Guatemala has the most important nearctic flora of the region. In addition, Guatemala boasts protected areas and biosphere reserves that include the most active and progressive indigenous participation in the region.
Honduras	42	1,070,300	9.6	The National System of Protected Areas of Honduras is comprised of 105 areas; only 67 of which are legally recognized. There is no accurate information about the size or limits of 52% of the areas, although the most important national parks have been demarcated and have staff and support for protection.
Mexico ¹	29	3,890,200	16.5	The five southern states of Mexico in the Mesoamerican region contain 6% of all of the protected areas of the country and represent unique ecosystems nationwide
Nicaragua	75	2,160,500	18.2	Although there are many legally established areas in Nicaragua, only a few of them are properly managed. There is no information about the size or limits of sixty of the 75 areas declared as natural reserves. Most of the areas are located in the Atlantic region.
Panama	42	1,966,400	26.0	Panama has ecosystems similar to Costa Rica but which are less threatened. Panama is home to the rich region of the Darién, a unique and important link between the MBC and the protected areas of Colombia.
Total	420	14,680,500	21.1	

¹ Includes only five southern Mexican states

Socioeconomic characteristics

33. The estimated population of Central America in 1997 was 34 million, a result of a growth rate of more than 3% per year since 1950. It is estimated that in the next 25 to 30 years – by approximately 2025 – the population will double.

34. According to García (1996a), the 1990 census of Mexico indicates that the five Mesoamerican states had a population of 7,103,636 with a population density of 30.1/per square kilometer. Belize has the lowest population density (0.9 per square kilometer). El Salvador has the highest population density (256 inhabitants per square kilometer). In Costa Rica and Nicaragua there is a predominance of mestizos; in Guatemala the Mayan population represents between 40 and 60% (García, 1996a) of the population. According to the United Nations Development Programme (UNDP, 1996), in 1991, 10.2% of the Central American population was composed of indigenous groups.

35. The region is experiencing a substantial decrease in its rural population. In 1980, 53% of Central America's people were classified as rural; by 1990 this had fallen to 46.2%. Estimates for the year 2030, indicate that only 28% of the population will be rural. This implies not only an increased urban population but also increased environmental pressures in urban areas (García, 1996a).

36. Moreover, according to García (1996a), the Human Development Index indicators increased during 1970 and 1985 and remained the same or decreased between 1985 and 1990 except in the case of Costa Rica where they continued to increase. However, between 1990 and 1993 the index improved throughout the region, except in Nicaragua (UNDP, 1996).

37. Gross National Product (GNP) per capita in Mexico is the highest in the region (US\$2,490 in 1990), followed by Panama, Belize and Costa Rica. For the period 65-90, the growth rate of the GNP in Mexico and Belize was 2.8 and 2.6 per year, respectively. Nicaragua and El Salvador experienced an overall drop in GNP or negative growth during the same period.

38. In general terms, structural adjustment policies during recent years have led to reduction of public expenditures and release of market constraints coinciding with an increase in both the unemployment rate and poverty, mainly for women. As a result, it can be expected that at present a larger percentage of the population is living under poverty conditions, and that this is primarily though not exclusively rural. Rural inhabitants, in turn, are exerting more pressure on natural resources: forests, soils and water.

39. Structural adjustment policies imply a cutback of State expenditures and thus a decline in the State's legislative and regulatory capacities to monitor and control the use of public property, including forests, as is presently the case in Nicaragua. Some measures to combat poverty have caused sizeable negative impacts on the forests and biodiversity of the region. For example, settlement programs in the rain forests of the Atlantic coast in some countries have led to destruction of biodiversity. It should be acknowledged that there is a historic conflict in Mesoamerica, as in other regions, over access to and ownership of natural resources and land.

A.2 PRIOR AND ONGOING ASSISTANCE AT THE REGIONAL AND NATIONAL LEVELS

Previous and recent assistance

40. From the regional perspective, the natural resources sector and particularly the biodiversity subsector have received considerable support from numerous international cooperation agencies in the specific fields of forestry, biodiversity conservation and sustainable development. Some experts contend that this support has not been as effective as had been expected because investments were dispersed and

isolated. Prior to the development of this project, international cooperation has not been geared towards actions that would serve to consolidate the Mesoamerican Biological Corridor at the *regional* level.

41. International cooperation agencies continue to show significant interest in providing support to the efforts carried out within the region on issues related to the conservation and management of biological and natural resources. As shown in Table 1 of Annex 14, in 1996 alone there were at least sixteen regional projects under implementation in Mesoamerica resulting in a total investment of US\$37.2 million. The projects were distributed thematically (forestry, biodiversity conservation and sustainable development) as follows:

4 regional sustainable development projects	US\$19,765,321
3 regional forestry projects	US\$ 7,087,000
3 regional biodiversity conservation projects	US\$ 6,040,600
1 trinational sustainable development project	US\$ 2,390,000
3 binational sustainable development projects	US\$ 900,000
1 binational forestry project	US\$ 534,000
1 trinational biodiversity conservation project	US\$ 500,000

42. Besides the projects mentioned above, in each country there are international technical and financial cooperation projects that support biodiversity conservation under implementation or negotiation. Information about these projects is given in detail in the National Reports prepared during the preparatory phase of this Project.

43. Recent regional cooperation projects within the area of environmental conservation and natural resource management have not been intentionally designed or planned to contribute to the establishment of the Mesoamerican Biological Corridor. They can be integrated into the establishment of the MBC at this stage of the project or during subsequent phases. Table 2 in Annex 14 lists the main initiatives and projects that are currently under implementation and are directly associated with the long-term vision of the Mesoamerican Biological Corridor. Some of the projects are financed through GEF resources and others by non-GEF funding sources.

44. CCAD has played an important role in furthering the impact of many of these initiatives by facilitating political support at the highest level in the region through the regulations originally developed at the Presidential Summits. CCAD has supported the development of environmental protocols at the regional level, including the Central American Conventions on Protected Areas, Biodiversity, and Forests. It has also leveraged technical and financial resources to support priority environmental projects in the region.

45. CCAD will continue to play this key role, as it becomes the new Under Secretariat of Environment of the Central American Integration System (SICA) and expands its mandate by resolution of the XIX Presidential Summit. It will expand its influence in the fields of biodiversity and environment to include issues such as Water Resources and Watershed Management, Environmental Health, Renewable Energy, Climate Change and others. What follows is a summary of recent initiatives associated with the MBC by thematic area.

Strengthening of Legal Systems

46. This project provides technical assistance in the legal field as well as training to law-makers, judges and other government officers in relation to sustainable use of natural resources. The project receives funding from PROARCA, IDB and UNEP for a feasibility study for standardization of environmental legislation in the region.

47. Another project linked to this area is the strengthening of the Network of Environmental Law Organizations (RODA). An example of the actions carried out through this project is the collection and standardization of laws protecting sea turtles in the Atlantic Coast of Costa Rica, Nicaragua and Panama. On 8 May 1998, the Presidents of Costa Rica and Panama signed a Cooperation Agreement aimed at coordinating conservation efforts. Costs of these activities are not included in the baseline because it was assumed that the main activities would be completed before starting this project.

Agricultural and Forest Management

48. The Program for Sustainable Development of Agricultural Frontiers (CCAD-European Union) provides regional support to indigenous organizations to receive training in farming and forest management. It also helps them to exchange strategic information about the economic value of forests and about best land-use practices, including the development of pilot projects and activities

49. The Regional Forest Program of Central America (PROCAFOR-Finland) and the Program for Support to Communal Forest Management in Central America (PAGEBOCA-BMZ) are two programs that support the capacity of national institutes and local groups to manage forests.

50. At present, the projects are supporting local actions, providing technical assistance to improve work methodologies, providing required equipment, etc. The latter project mentioned is also developing networks, both of government officers and leaders of organizations, to manage protected areas and communal forests.

Environmental Management and Conservation of Protected Areas

51. The Environmental Project for the Central American Region (PROARCA), funded by USAID, is aimed at improving planning and management of protected areas in Central America (CAPAS), including support to the consolidation of the MBC and sustainable management of coastal-water resources of the region (COSTAS).

52. An important component of the project is to provide technical assistance to state agencies with limited capacities in managing environmental sanitation in small cities, environmental impact assessment, etc. PROARCA has also developed consultation mechanisms at the regional level between agencies from the public sector.

53. During the second year (1997-1998), CAPAS has carried out the following activities: identification of gaps in the Central American Protected Area System (SICAP); support to a Regional Strategy of Information for Biodiversity; test of a Monitoring System for Protected Areas; support to the dissemination of the concept of ecological easements; and development of a handbook on how to fund protected areas. It has also contracted a technical study to define the potential of carbon sequestration from the MBC.

Environmental Education

54. During the next few years, the World Wildlife Fund (WWF) will develop actions to disseminate widely the concept of the Mesoamerican Biological Corridor and will contribute to training decision-makers in Central America. These actions will be supported by the BMZ from Germany.

Sustainable Tourism

55. GTZ (German Technological Cooperation) and SITCA, with headquarters in Nicaragua, will be developing a regional project to promote Sustainable Tourism.

Participatory Planning for Sustainable Development

56. The Canadian International Development Agency (CIDA) currently supports the dissemination of the objectives and goals of ALIDES and the development of related projects, i.e., developing the environmental objectives of the Alliance.

57. The main work areas include operational strengthening of the National Councils of Sustainable Development, implementation of the regional environmental agenda and the inclusion of environmental issues in other thematic areas of the Alliance (mainly in the economic agenda of the region). To achieve these objectives the project is encouraging debates and joint planning exercises between the public and private sectors.

Regional Institutional Capacity

58. As part of the expansion of cooperation between the CCAD and SIDA (Swedish International Development Agency), the regional project *Strengthening of Environmental Management in Central America* is aimed at strengthening the analytical and administrative capacity of the CCAD Executive Secretariat in order to coordinate the great number of activities derived from ALIDES' environmental policies. Moreover, the project assists the CCAD to decentralize the design and implementation processes of project activities and encourages the participation of governmental agencies and of civil society organizations in these processes.

Conservation Funds

59. The **Central American Fund for Environment and Sustainable Development (FOCADES)** will act as the regional financial mechanism aimed at financing the implementation of ALIDES and Regional Environmental Agreements. The Fund will comprise specialized accounts focused on different aspects of this Agenda. The first sub-account, capitalized with GEF funds, is aimed at financing regional projects or national projects with regional relevance in the areas of protection of international waters, conservation of biodiversity, and mitigation of climate change. An initial set of projects are proposed for funding, including, for example, a Manatee Conservation Project in the international waters of Belize, Guatemala and Honduras (Gulf of Honduras).

60. Other sub-accounts have been designed for Sustainable Forest Management (possibly funded by the EU) and the incorporation of environmental values into small and medium-scale companies (possibly funded by the IDB).

Conservation of Coastal Ecosystems

61. The **Conservation of the Coastal Ecosystems of the Gulf of Fonseca**, an initiative from the governments of El Salvador, Honduras and Nicaragua, was prepared as preliminary assistance to ensure the good management of coastal resources shared among the countries. During the second phase, which is estimated to last four years and be funded by DANIDA (Danish International Development Agency), the execution will be conducted by the three countries with technical assistance from the Wetlands Program of the IUCN Mesoamerican office.

A.3 INSTITUTIONAL FRAMEWORK FOR SUBSECTOR AND EXISTING REGIONAL STRATEGIES FOR BIODIVERSITY CONSERVATION

National Institutes

62. Through the years, each Mesoamerican country has responded to economic development priorities and to the loss of species and habitats by creating policies and programs and specific institutional structures to plan, manage and monitor land development. These national institutions, at the

ministerial level, include: MARENA in Nicaragua, MINAE in Costa Rica, MINREC in Belize, MARN in El Salvador, ANAM in Panama, SEMARNAP in Mexico, CONAMA in Guatemala and COHDEFOR in Honduras. A brief description of the institutional structure within participating countries follows.

Belize

63. The institutional framework in Belize to support biodiversity conservation and the network of protected areas is comprised of three departments that belong to different ministries. These are: Ministry of Natural Resources (the Forest Office is responsible for the administration of national forests and national parks, the general conservation of the coast and the Center of Land Information); the Ministry of Agriculture and Fisheries and the Ministry of Tourism and Environment.

64. Conservation NGOs have an important function in planning and managing protected areas. Two of them, the Belize Audubon Society and Programme for Belize, are especially important because they are directly responsible for the management and administration of specific protected areas. Some other NGOs own and/or administer small nature reserves including the Five Blues National Park, the Community Baboon Sanctuary and the Monkey Bay Wildlife Sanctuary.

65. During the last six years, the Government of Belize has shown its commitment to environmental management through the creation of the Environment Office in 1989 and the approval of the Environment Protection Law in 1992. The Government has also supported the integrated management of the coastal area and has preserved areas with high biodiversity through the creation of numerous terrestrial and marine protected areas. The Government has sanctioned the Protected Areas Conservation Trust (PACT) as a mechanism to finance reserve management. The Government has also strengthened environmental management through a number of regulations, among them the requirement that all new projects conduct an environmental impact assessment (EIA) prior to initiation. The State has also strengthened the regulatory capacity of the Environment Office, has increased the cost of fishing licenses and has implemented a fee structure for entering protected areas. Belize is currently preparing its National Biodiversity Strategy and Action Plan with funding from the Global Environment Facility (UNDP-GEF) and is embarking on a national programme to set up a Marine Protected Area Network, building on the GEF pilot-phase coastal zone management project.

Costa Rica

66. Environment Law No. 7554 defines actions for the conservation of biodiversity as one of the responsibilities of the Ministry of Environment and Energy (MINAE). MINAE has established the National System of Conservation Areas (SINAC) as a decentralized institute. SINAC joins MINAE's authority on forest, wildlife and protected area management with the objective to plan and implement processes to achieve sustainable management of natural resources.

67. SINAC is a national system composed of 10 regional subsystems called conservation areas. The Conservation Areas are geographic units that integrate protected wild areas administered by MINAE and management actions executed by SINAC. On private lands, activities are centered on the monitoring and control of environmental and natural resource actions performed principally by the private sector: land development licenses, environmental sanitation, etc.

68. The Costa Rican network of Private Reserves, established in 1995, integrates many owners of this type of reserve in the country which, in aggregate, cover about 150,000 hectares. The country has more than 300 non-profit conservation organizations that include organizations working on species or specific sites and national NGOs that support protected wildlife areas or promote projects in buffer zones and biological corridors.

69. In 1994, the Presidency of the Republic established the National System of Sustainable Development (SINADES). This agency works through ad hoc consultation commissions that advise the central government on issues identified as being important to sustainable development. The commission has government, private sector, university and civil society representatives. SINADES established the Advisory Commission on Biodiversity (COABIO).

70. COABIO is responsible for the preparation of the National Biodiversity Strategy with funds from the Global Environment Facility (GEF-UNDP) which have been assigned to INBio (National Institute of Biodiversity).

71. In relation to funding of SINAC, MINAE established the Costa Rican Office of Joint Implementation (OCIC) to guide efforts to obtain financial resources for SINAC via this mechanism. Funds generated will be used for both the purchase of lands in parks and biological reserves and to support and promote conservation actions and management of forests on private properties, mainly in buffer zones and biological corridors. Up to now, this mechanism has provided the country with several million dollars (US\$).

El Salvador

72. Part of the mandate of the Ministry of Agriculture and Livestock is to "establish, develop and administer a system of national parks and reserves to provide recreational, touristic, educational, scientific, environmental and conservation services without deteriorating natural resources". The office of the Vice-President of the Republic has directly supported the actions related to the development of the Mesoamerican Biological Corridor project.

73. Other institutes and organizations are: the National Center of Agricultural and Forest Technology, the National Center of Fishing Development, the Salvadoran Institute of Tourism, local governments and the Salvadorian Institute of Municipal Development.

74. The General Department of Renewable Natural Resources and the Ministry of Environment are the institutes responsible for biodiversity conservation and protected areas in El Salvador. However, other Government agencies and non-governmental organizations and institutes carry out activities addressed to improve, directly or indirectly, the nation's biodiversity.

75. The National Environment Strategy was prepared in 1994. It describes the principal environmental problems and presents intervention strategies. The environmental problems included in this strategy are deforestation, land degradation, degradation of water basins and water resources, degradation of coastal-sea resources, loss of biodiversity and pollution. The Government has established a National Commission which is currently preparing the National Biodiversity Strategy and Action Plan with funding from the Global Environment Facility (UNDP-GEF).

Guatemala

76. Guatemala has several laws and regulations indirectly supporting the use and conservation of biodiversity but lacks a specific law for that purpose. Environmental protection laws include the General Law of Environmental Protection (1986) and specific laws related to protected areas (1989), hunting, (1970), plant and forest sanitation (1996) and wastewater treatment, pollution and fishing (1932). The Law of Protection and Improvement of the Environment (section 19, Decree 68-86) and the Law of Protected Areas and their Regulation (Decree 4-89) are the laws most directly related to the conservation of biodiversity. In 1992, the first draft of the law on biodiversity was prepared but it remained unread within the National Commission on the Environment at that time.

77. The national institute responsible for the administration and management of protected areas is the National Council of Protected Areas (CONAP). The National Institute of Forests (INAB) has the

responsibility to manage national forests. Several conservation NGOs (Defensores de la Naturaleza, FUNDAECO, Fundación Solar, etc.) administer, protect, and develop protected public areas through agreements with the Government. They also administer their own private protected areas.

78. At present, there is a new national proposal to manage protected areas as part of conservation units. There are 13 Conservation Units composed of 20 management sub-units with a total of 216 areas (present and future) that cover 29,225 square kilometers. If implemented, 26.8% of the national territory would enjoy protected status.

79. As one of the multiple initiatives currently being implemented by the Government of Guatemala to promote compliance with international and regional conventions on biodiversity, the creation of the National Coordination Unit of Biological Diversity (CONADIBIO) is the most important. CONADIBIO is, among other things, the responsible party for the development of the National Biodiversity Strategy and Action Plan, funded by the Global Environment Facility (UNDP-GEF).

Honduras

80. The Honduran Corporation for Forest Development (COHDEFOR) is a semi-autonomous institution and the leading political organization in charge of managing forest resources (Decrees 85 and 103) and protected wildlife areas (General Law of the Environment – Decrees 104-93). The Office of Protected Areas and Wildlife which is in charge of the general management of wildlife areas in the country is also part of COHDEFOR. It also manages the use and legal development of wildlife.

81. The State Secretary within the Department of Natural Resources is in charge of the development of natural resources related to water and agrarian resources. The State Secretary within the Department of the Environment was created in 1993 and is the institution in charge of national environment issues and planning environmental policies.

82. Non-profit, non-governmental organizations - public and private - are responsible for management and protection of specific protected areas. Some of the organizations are Mopawi, Fundación Vida, Fundación Kawas, Fundación Fasquele, AMITIGRA, etc.

83. National policies related to conservation of wildlife and sustainable management of natural resources are found in the Environmental Profile, Environmental Agenda of Honduras, Environmental Action Plan and Forest Action Plan.

84. According to the plans and management policies of the Honduran Institute of Tourism, wildlife areas of the mountain range Nombre de Dios are strategic areas for the development of traditional tourism and ecotourism. The areas are located in the so-called Triangulo de Oro (Golden Triangle) that encompasses all of the Atlantic area of Honduras.

85. The National Biodiversity Strategy and Action Plan is currently under preparation with funding from the Global Environment Facility (UNDP-GEF).

Mexico

86. The environment sector of Mexico is the responsibility of the Secretary of Environment, Natural Resources and Fisheries (SEMARNAP), an agency that integrates the development of natural resources and environmental protection consistent with sustainable development. The National Institute of Ecology (INE), a SEMARNAP agency, has the responsibility of developing general ecological policy that informs environmental management. INE is responsible for both sectoral and regional issues. Some environmental management roles of INE are the ecological regulation of the nation's territory, declaration and management of protected natural areas, conservation and sustainable management of wild flora and

fauna, control of transboundary movements of flora and fauna, education and environment training and promotion of scientific and technological investigation.

87. At present, there are several institutions designing environmental policy and management with active participation of citizens or organized groups including academic institutes, NGOs, and other interest groups.

88. Among the organizations and institutes that protect biodiversity and manage protected areas in Mexico are Conservation International, Friends of Sian Ka'an, Institute of Natural History, College of the Southern Frontier (ECOSUR), Pronatura of Chiapas, National Commission for Knowledge and Use of Biodiversity, Secretary of National Defense, National Institute of Anthropology and History, Secretary of Tourism, National Population Council, Secretary of Public Education and National Council of Protected Areas.

89. In 1988, Mexico approved the General Law on Ecological Balance and Protection of the Environment. It rules on actions related to the environment, defines principles and guidelines, establishes the foundations for interaction among different levels of Government and introduces new elements of control, security and participation. The Second Title of this Law includes protected natural areas, management categories and their regulations. The strategies related to this issue are developed and systematized within the recently published Program of Protected Natural Areas of Mexico 1995-2000.

90. The National Biodiversity Strategy and Action Plan is currently under preparation with funding from the Global Environment Facility (UNDP-GEF).

Nicaragua

91. MARENA was created by Decree on 10 January 1994. This Ministry "administers and manages protected areas, reserves, and national parks of the country". The Department of Protected Areas, Fishing and Wildlife is in charge of the conservation of biodiversity. However, due to budget and technical constraints, this function takes place only in a few protected areas where MARENA is present.

92. Fundación Cocibolca is an NGO that works directly on conservation of biodiversity at the national level. The UCA School of Ecology and Natural Resources has some teachers who occasionally work as consultants conducting inventories of flora and fauna for several international agencies such as the German Cooperation Agency (GTZ), The Nature Conservancy (TNC) and Amigos de la Tierra-España (AT). Local NGOs initiating projects with biodiversity conservation components include the Fundación Esperanza Verde, Fundación para el Desarrollo Sostenible and Fundación Entre Volcanes.

93. MARENA lacks technical and financial resources to manage all the areas officially declared as protected, especially in the Pacific region. MARENA does provide some management and protection functions in the Masaya Volcano National Park and the Chococente Wildlife Refuge. The large biological reserves of the Atlantic coast (Bosawás, SI-A-PAZ and Miskitos Cays) receive technical support from several international agencies and organizations.

94. In view of these limitations, MARENA has expressed interest in delegating the management and administration of protected areas, without foregoing its regulatory role mandated by the State vis-a-vis environmental management of protected areas, to local governments and selected NGOs.

Panama

95. The National Institute of Renewable Natural Resources (INRENARE) recently became the National Environment Authority (ANAM). It is the most important governmental agency in charge of executing strategies, policies and programs of the biodiversity conservation sector. As an autonomous

agency it is housed within the sector of planning economic and social development coordinated by MIPPE.

96. ANAM (INRENARE) has a staff of more than 800 permanent officers and 269 temporary officers. Of the staff, 42% are technicians, 29% administrative and 29% provided logistical support. The responsibility to execute policies, strategies and programs for the conservation of biodiversity is based on Law No. 21, 16 December 1986, that created the National Institute of Renewable Natural Resources (INRENARE) as an autonomous agency responsible for the administration of the country's renewable natural resources. This agency has become the National Authority of the Environment and its purposes include the definition, planning, organization, conservation and development of the renewable natural resources of the country.

97. NGOs are the most effective mechanisms to promote and implement development programs with community participation in the country. The Ministry of Planning and Economic Policy coordinates the NGOs' actions through COPRAM (Coordination and Promotion of Actions in Marginal Areas). CONAGRA (Coordination Unit of Environmental Groups) was recently created. It is present in almost the entire country and is working as a channel for all actions geared to sustainable development and conservation of natural resources.

98. Some institutes and organizations related to the environment are the Technological University of Panama, University Santa María La Antigua, Smithsonian Tropical Research Institute, Gorgas Research Center and several foundations, associations and private groups.

99. It is also important to mention that there is a UNEP-GEF project at the final stage of negotiation to prepare the National Biodiversity Strategy and Action Plan that may position the country to more effectively support biodiversity conservation. In addition, in 1996 a national consultation established the basis for the creation of the National Biodiversity Commission as a local mechanism to execute conservation programs in this field.

Regional Institutional Structures

Central American System of Protected Areas (SICAP)

100. To counter the loss of biologically diverse habitat, the governments of Mesoamerica have, over the past thirty years, declared 470 protected areas (in Central America, these have been recently organized into the Central American System of Protected Areas - SICAP). This trend has resulted in 35% of the territory of Belize receiving some kind of protection, followed by Guatemala with 25%, Costa Rica and Panama, 24%, and Honduras, Nicaragua, Mexico and El Salvador, with approximately 2% each: region-wide, this corresponds to a total land area of over 18 million hectares. Nevertheless, at least 270 of these areas are considered too small to be able to realistically fulfill their purpose in terms of long-term biodiversity protection unless functionally linked to other protected areas. Half of all protected areas are not staffed, only 12% have management plans, most are poorly demarcated and barely 40 host any kind of research program. Only a few select areas enjoy the appropriate institutional and legal frameworks to further the conservation of biodiversity and long-term sustainable generation of goods and services necessary for the region's development.

101. Many individual protected areas, as well as specific national systems of protected areas, have received or are now currently receiving funding to address the problems highlighted above; this includes funding for activities in buffer zones to mitigate human pressures on the habitat and species of core protected areas. Nevertheless, funding falls short of overall biodiversity conservation needs across the region; neither SICAP nor the Mesoamerican portion of the Mexican system of protected areas include representative areas from all important ecoregions or habitats under threat; funding is unevenly distributed across the region and within protected area systems; duplication of efforts often occurs with more than one

donor agency or institution providing similar inputs to a single project area; experience gained from project design and implementation in one project is often not readily available to other projects under similar conditions; inter-sectoral collaboration may be weak or non-existent resulting in conflicting mandates and programmes working at cross-purposes; high-quality information produced as part of diagnostic exercises, scientific research and other activities is often unavailable to planners and managers; and the awareness of all strata of the region's societies regarding the value of biodiversity to economic development and human well-being is slight.

102. At the same time, there is growing recognition that a regional protected areas system - even when fully staffed and financed - will be insufficient, in and of itself, to conserve the biodiversity of Mesoamerica. Expected demographic and socio-economic trends over the coming decades will result in increasing pressures on remaining natural habitats, protected areas and their resources. For biodiversity to be effectively protected over the long-term, it must occur within a region-wide matrix of protected areas and areas of sustainable resource use managed for the region's economic development; the cardinal guiding principle of this strategy must be one of avoiding fragmentation of wildlands and the consequent isolation of protected areas as vulnerable "islands" of high biodiversity surrounded by modified landscapes.

Central American Commission on Environment and Development (CCAD)

103. Over the past decade, the countries of the region have increasingly worked together to build consensus around common environmental goals. In December 1989, the Presidents of the Central American nations signed the Central American Environmental Protection Agreement and established the Central American Commission on Environment and Development (CCAD), in which Mexico participates as an observer.

104. The CCAD is a regional entity whose purpose is to coordinate, catalyze, facilitate and promote actions related to the environment. By presidential mandate, it has been appointed to follow up the environmental commitments that were formulated within the ALIDES framework and to ensure that the environmental issues are properly addressed in all the other areas of sustainable development (economic, social, cultural and educational policies).

105. The Commission is in charge of:

- The preparation of strategies to promote environmentally sustainable development in the countries of the region and to elaborate an Action Plan that will execute these strategies;
- The approval of Internal Regulations and financial and administrative regulations required;
- The management of the Secretariat and the supervision of the administration of the Fund established by the Convention;
- The appointment of the President who will be its Legal Representative.

106. At present the CCAD is composed of governmental authorities from the environment or natural resources entities of the Governments of the seven countries, represented by ministries of the environment, natural resources or equivalent agencies and by directors from the secretaries of environment that constitute the highest decision-making agency. Mexico participates as a member-observer with other non-governmental organizations related to environmental issues.

107. The CCAD has an Executive Secretary with the main office now in San Salvador as of October 15, 1998. Its responsibility is to fulfil the resolutions given by the Commission and its President. Other functions of the Secretary are: to give technical advice to the Commission and prepare proposals for better compliance with the objectives of the Convention referenced above, coordinate and conduct technical committees, coordinate technical cooperation among the member countries and cooperation agencies,

administer funds, represent the Commission and coordinate the actions at the national level with each representative.

108. Among CCAD's main achievements to date are the elaboration and subsequent ratification of Regional Conventions (Biodiversity, Climate Change, Forests, Toxic Wastes, etc.) and the preparation of a Central American Environmental Agenda which constituted the basis for a joint regional position at the Rio Earth Summit of 1992. It is also responsible for ensuring that environmental issues are addressed at the highest political level in the region - the biannual Presidential Summits. Moreover, CCAD actively mobilizes and channels a significant stream of resources for environmental and resource-related projects and programs to the region.

109. By mandate of the Central American Presidents Summit, beginning in January 1999 the functions of the Executive Secretary will be assumed by the new Environment Department of the General Secretariat of the Central American Integration System (SICA).

Central American Councils of Protected Areas and Forests (CCAP-CCAB)

110. In June 1992, as part of the broader regional integration process dealing with environmental and natural resource policies, the Presidents of the Central American countries signed the *Central American Convention for the Conservation of Biodiversity and Protection of Priority Protected Areas*. As part of this Convention, the Central American Council on Protected Areas (CCAP) was created and charged with co-ordinating regional efforts for the development of the aforementioned Central American System of Protected Areas (SICAP) under the supervision of the CCAD.

111. In addition, in June 1992, the Presidents of the isthmus approved the *Central American Agenda of Environment and Development* as a response to the Environmental Action Plan for Latin America and the Caribbean. This document was presented as the Regional Report for Central America at the Rio Earth Summit and became the document of environmental policy for the region.

112. The Regional Convention for the Management and Conservation of Natural Forest Ecosystems and the Development of Forest Plantations was signed in October 1993. The main objectives of the convention are to: promote national and regional mechanisms to avoid change in land use of areas with forest cover and to restore deforested areas, establish a consistent system of soil classification, direct settlement policies in forest lands, and promote a process of land regulations and sustainable use options.

113. The Convention created the Central American Council of Forests (CCAB), composed of directors from the forest service of each country who are obliged to follow the convention. This Council and the Council of Protected Areas are the regional institutes that provide technical and policy instruction for the regional projects and programs related to natural resource management. They also facilitate participation from other regional sectors, demonstrated by the inclusion within CCAB and CCAP of permanent observers from regional organizations representing civil society.

Central American Alliance for Sustainable Development (ALIDES)

114. In October of 1994, the governments of Central America formed the *Alliance for Sustainable Development (ALIDES)* to coordinate short, medium- and long-term actions aimed at modifying conventional development approaches in order to ensure environmental, economic, social and cultural sustainability. As part of ALIDES, the region's governments are directed "to protect and conserve biodiversity of all species of plants, animals, and other organisms, of genetic populations within each species and the variety of ecosystems". As such, ALIDES specifically advocates the creation of a regional "*biological corridor* to strengthen the respective national systems of protected areas."

115. This Strategy is based on the definition of rights and responsibilities under the Agenda 21 framework. The objective is to become a model of sustainable development for other countries where

respect for life, a permanent improvement in the quality of life, respect for biodiversity, peace, democracy, human rights, diversity of cultures and ethnic groups are the principles that will direct the future of the region.

116. One of the main principles is related to the respect for and development of biodiversity on a sustainable basis. This aspect is considered as an action to: "Protect and conserve the biodiversity of all the plant, animal and other species, of genetic populations within each species and the variety of ecosystems". It also establishes "the integrated management of lands to secure the conservation of the biodiversity of the region for our benefit and for humanity". Its specific objective is "to restore, understand and use the biodiversity of the region and promote, among other things, the development of biological corridors and protected areas, biodiversity centers and botanical gardens". Among the commitments related to natural resources and biodiversity it mandates the establishment of the "Central American Biological Corridor to strengthen the National Systems of Protected Areas".

117. In order to strengthen the actions of ALIDES, the CCAD signed different conventions with Governments that have given support to the CCAD since 1994 under the framework of the project "Strengthening of Environmental Management in Central America in the Implementation of Environmental Commitments by ALIDES". This project is being extended to include aspects such as support to environmental education in the region, training in environmental management, systems of environmental information and institutional strengthening of CCAD (Vargas, 1996).

118. At the same time, Central American countries and Mexico established cooperative links within the CCAD framework that allowed for the inclusion of Mexico as an extraregional partner to ALIDES activities. In October 1995, a Joint Declaration between the Central American and Mexican Governments was signed during the XVIII CCAD meeting. The declaration promotes cooperation within the field of conservation, environment, and sustainable development of natural resources and identified priority actions, including support to the Mesoamerican Biological Corridor.

119. Moreover, the Central American and Mexican Presidents agreed in February 1996 (Tuxtla II) to promote national efforts and regional cooperation to develop actions aimed at conserving and using natural resources sustainably and protecting the environment. The action plan includes a chapter on Environment, Natural Resources and Fisheries, with one of the priority areas being biodiversity conservation.

120. Based on this framework, several coordinated actions took place with the Mexican Government in June 1996, with officers from the Secretary of Environment, Natural Resources and Fisheries discussing the initiation of actions established by the San Jose Declaration. In July 1998, during the joint Tuxtla III declaration, the eight Presidents agreed to "continue with cooperative activities to establish the Mesoamerican Biological Corridor".

B. PROJECT JUSTIFICATION

B.1 PROBLEMS TO BE ADDRESSED: THREATS TO BIODIVERSITY

Proximate and underlying causes of biodiversity loss

121. The biodiversity of Mesoamerica is seriously threatened by several factors, the most crucial of which may be deforestation. According to available information this may reach 400,000 hectares per year, equivalent to a loss of 50 hectares of forest per hour. If this rate remains the same, by the years 2005-2010, only fragments of protected and non-protected wild areas will survive, and these fragments may vanish altogether by the year 2015.

122. Destruction of natural resources has negative impacts on water resources, soils, fishing resources and biodiversity. For example, between 1970 and 1989 Costa Rica lost natural resources of a value equivalent to the net domestic product of the country (Solórzano and others, 1991). The loss of forests has affected all countries at about the same order of magnitude: in Honduras the deforestation rate is 2.1% per year and in Nicaragua deforestation varies from 100,000 to 150,000 hectares per year (Boza, 1994).

123. The current environmental and resource situation results from the implementation of unsustainable development policies. This has created a non-viable development model, a fact that has been demonstrated in recent studies (Pasos et al, 1994). These policies should change radically, especially those related to investments and their withdrawal, the objective being to eliminate unsustainable practices and to develop policies that will value in monetary terms natural assets as real instruments of socioeconomic development.

124. Deforestation, forest fires, land and water pollution, massive and indiscriminate fishing, hunting and selective extraction of plant and animal products are the main causes of the extinction of the biological richness of the region. Forest fires occur with more frequency along the Pacific coast due to the existence of a dry season that lasts from 6 to 7 months. Fires may be started to clear the forest for farming purposes. They also start by accident, i.e., they are set to eliminate mature cane but spread due to the lack of supervision or strong winds of the region between November and April (Boza, 1994).

125. The wildlife of the region is disappearing at a high rate due to capture for food, trade, to obtain fur, leather and feathers; for medicinal or ritual purposes; as living specimens for zoos, biomedical investigation and as pets; sport hunting; the destruction of habitat and the effect of forest fires, sedimentation and pollution (Redford & Robinson, 1991). Most of these impacts also apply to plants, although the destruction of habitat and selective extraction are the main causes of the extinction of many species. Two bird species, very important in the region, the quetzal (Pharomachrus mocinno) and the Scarlet Macaw (Ara macao) are endangered because of the loss of their habitats, and capture for their feathers and for use as pets.

126. Ugalde & Godoy (1992) mention two other causes that threaten protected areas in the region: development projects such as tourism complexes along the beaches; natural or man-made disasters; lack of coordination and clarity regarding jurisdiction of protected areas as well as drug trafficking, illegal extraction of plants and animals and the illegal exploitation of mining resources.

127. The insufficient number, the small size and the lack of representation of protected areas; fragmentation and isolation of wildlife areas and the effects of climate change on biodiversity may have provoked the disappearance of the paramos (Tosi, Watson & Echeverria, 1992). The small size of protected areas has also been mentioned by Ugalde & Godoy (1992) who reported that 70% of Central American areas measure less than 10,000 hectares.

128. Isolation and fragmentation of ecosystems is a crucial factor in the region that must be considered. National parks and reserves are individually located over the expanse of eight countries which, according to Carr, Lambert & Zwick (1994), are becoming islands of wildlife and biodiversity surrounded by altered landscapes.

129. Given increasing pressures in rural areas (expansion of the agricultural frontier; large-scale agro-industrial investment), biodiversity will be most effectively protected through a multisectoral strategy aimed at integrating biodiversity conservation with economic development within a regional land-use planning framework. This framework will be designed around the criteria and requirements for biodiversity conservation and rural economic development with the aim of creating, over time, a regional network of protected areas and their buffer zones, linked through biological corridors. This network, when taken as a whole, will constitute a regional biological corridor extending from southern Mexico to eastern Panama.

Specific problems to be addressed by the Project

130. There are several important issues to address at the strategic level regarding regional efforts to conserve biodiversity: strategic planning, resource mobilization, information dissemination and monitoring of threats, capacity building for planning, management and administration of biodiversity resources, public education and awareness raising, and the harmonization of environmental policies and laws.

Strategic Planning

131. Mesoamerica does not currently possess a regional strategic analysis on the state of biodiversity. Each country has made some progress in this area and, in some cases, countries have prepared conservation strategies, national biodiversity studies, and environmental profiles and ecological evaluations of key sites. However, at the regional level, no economic, social, political, or financial analysis of conservation and sustainable use of biodiversity has taken place nor has national information been integrated into a comprehensive whole.

132. The only regional environmental study was published in 1986 by the International Institute for Environment and Development (IIED-Leonard). It includes analysis of forest loss and wildlife but fails to address larger biodiversity issues. An updated version of the State of the Environment and Natural Resources in Central America was published in July 1998. It was prepared by CCAD-SICA, IUCN, WRI, WB, USAID, UNEP, MacArthur and Ford Foundations and the Swedish Government.

133. It will be necessary to carry out several activities to analyze current trends and status of biodiversity loss and conservation, elucidate the causes of ecosystem destruction, and develop future scenarios regarding the accompanying long-term environmental consequences. It will also be important to establish recommendations and strategies to strengthen national and local conservation programs, initiate restoration activities, and strengthen existing mechanisms to promote the conservation of biodiversity at the regional level.

134. A partial though insufficient analysis regarding the state of protected areas management of the Central American System of National Parks and Protected Areas was carried out during 1996-97. At that time, the CCAB-AP and IUCN-ORMA conducted a workshop in each one of the seven Central American countries to analyze management issues vis-à-vis protected areas that are central components of the MBC.

135. The main outcome of these meetings was the presentation of national reports that described the management situation of each nation's protected areas including location, size, legal situation, land ownership, personnel, protection, attention to visitors, management plans and other prepared documents, development of facilities, general knowledge of the ecosystems and biodiversity, main threats and urgent needs. In order to complete this study, the five Mexican States that belong to the Mesoamerican region need to conduct an analysis of their protected areas.

136. The lack of uniform management policies for the national systems of protected areas and for the strategic areas of forests that border them or that are located in the interconnections among the protected areas has contributed to ineffective management for biodiversity conservation in Mesoamerica. The lack of a regional unifying umbrella program that could address or promote solutions to this problem has caused confusion amongst national and international technical and financial cooperants who are trying to support the protection of natural and cultural resources of the region. As a result many of the benefits and services that biodiversity could provide to rural inhabitants, recreationists, ecotourists and researchers have not been fully realized.

137. A very important need of the region is to strengthen the institutes and national and regional organizations, public and private, to improve their capacity to undertake and execute the functions required for the development of programs for the conservation of biodiversity and to improve their

management capacity for technical and financial international cooperation. Institutional strengthening and the integration of NGOs to protect wildlife areas have already been proposed at the Seminar on Bilateral Cooperation with NGOs in the Field of Protection of Conservation Areas held in Costa Rica in 1994 (Valdebenito, 1994).

138. Very often the services at national parks or protected areas are provided by institutes at an institutionally low hierarchical level forming part of a larger forest department. They have few trained staff, little equipment and inappropriate facilities to carry out their jobs. Consequently, these institutes do not have the capacity to carry out the vast job of administering, protecting and managing hundred of thousands of hectares - sometimes up to 15% of a country's land area - under national parks, biological reserves, wildlife refuges and other similar reserves.

139. The environmental degradation of the region has provoked an alarming reduction - in some cases almost the extinction - of some ecosystems, mainly in areas more hospitable to human settlements. Some of the most affected ecosystems are the dry forests of the Pacific coast of the Region, from southern Mexico to northern Costa Rica with an additional extension to the Azuero peninsula in Panama; some mangroves and some wetlands, also located along the Pacific coast; pre-montane rainforests where some cities and even some capitals of Central American countries are located; and some pine forests that frequently suffer from destructive forest fires.

140. Currently, there has been positive experience regarding the recovery of some of these ecosystems. For example, in Guatemala and Honduras projects to restore pine forests are located in the central region of each country. In Costa Rica, the Guanacaste Conservation Area has regenerated dry forests of the Pacific coast. It is clear that in the near future duplication of these first successes will be required and investigations begun to better understand these practices so that the principles can be applied to the restoration of other types of ecosystems and associations. Thus, it is important to identify the extent of the problem of ecosystem and habitat degradation, select the areas that require restoration projects, analyze the incorporation of activities of joint implementation into the restoration projects, study institutional and technical capacities in each country and the possibilities of international technical and financial cooperation to support ecosystem restoration projects in the region, and finalize a strategy and action plan to address the issue programmatically.

Resource mobilization

141. The global significance of biodiversity is insufficient per se to most decision-makers to justify the formulation of policies, the approval and implementation of environmental laws, the development of programs and the allocation of financial resources by governments. Equally important is the calculation of the economic value of all goods and services supplied by wildlands such as water, energy, recreation, ecotourism, medicinal plants and carbon storage (Boza, 1994). At the same time, the economic value of cultural assets such as the Maya ruins throughout the forests of the Yucatán Peninsula, Guatemala and the west of Honduras must be included.

142. In this respect, Camino (1993) claims that tropical rainforests offer many products and functions for which markets and commercialization systems must be created so they can be assigned a value and a price or so that their value may be expressed as a *compensation* for those who produce them or as *taxes* for those who enjoy them. Products and functions that must be valued include food, raw material, energy development, water supply, transportation, protection, promotion, recreation, climate stability, genetic reserve and scientific function. Fortunately, the science of environmental economics has progressed to the point where it is possible now to place a monetary value on water basins for the fresh and permanent water they produce, or on a mangrove forest or a coral reef for their roles in the protection of coasts against natural events and as nurseries to commercial fish species.

143. In addition, because forests, and particularly protected areas, supply environmental services to society, consumers of those services should provide compensation to these areas through the agencies in charge of their administration and protection. For example, electricity institutes that use water produced by the water basins located in a national park should pay a service fee to national parks to support the protection of these basins. The maintenance of water basins should be included in the bill paid by water consumers. The same philosophy must be applied to consumers of the other environmental services.

144. The agencies responsible for the management of protected areas must have better access to the available information on financial mechanisms such as those outlined above to ensure that they will directly receive the funds for the environmental services paid for by other institutions or consumers. This will subsequently allow these agencies to make investments in the protection and development of parks and protected areas.

145. Taking into account what has been discussed above, a study is urgently needed to demonstrate the value of environmental services supplied by the forests of Mesoamerica, particularly those situated in protected areas. Concurrently, each of the eight countries of the Region should draft a bill authorizing the collection of funds for environmental services and to guarantee that these funds will be received by the agency or agencies responsible for the conservation of forests, watersheds and protected areas.

Information and Monitoring

146. Although widely spread throughout various national and international organizations and national governments, existing technical information about the region's biodiversity includes rapid ecological evaluations that have been performed for certain protected areas, (Iremonger & Sayre, 1994), books about the arborescent flora of certain regions or countries (Croat, 1978; Brokaw, Mallory & Alcorn, 1990), theses regarding the ecology of some areas (Guzmán, 1986), country guides referring to ecology and natural history (D'Arcy & Correa, 1985; McDade *et al*, 1994), and assessments of certain species. (Fleming, 1986).

147. However, no document currently exists which brings together existing information in one source book for this part of the world. This atlas would include brief descriptions of all living organisms (where the information exists) of present or potential interest for the following reasons: 1) raw material for medicines or chemical or industrial products; 2) because they are rare species, endemic or endangered; 3) or because they are attractive for ecotourism and for sustainable uses of other kinds. Furthermore, observations about the conservation status of the species and other useful aspects for conservation or recovery purposes should be included.

148. The systems of ecological classification that have been developed up to this point to inform conservation efforts are inapplicable to Mesoamerica due to reasons of scale (BSP, 1995; Dinerstein *et al*, 1995). In the latest assessment (Dinerstein, *et al*, 1995), for instance, Belize appears with just two ecoregions, wetlands and pinewoods although the country has 31 major types of vegetation and several subtypes or associations. (Iremonger & Brokaw, 1995). Furthermore, wetlands of the Atlantic coasts of Honduras, Nicaragua and Costa Rica are present as mangroves, a fact that leaves out the large diversity of habitats currently in existence. Similarly, the assessment describes Central America with only 17 ecoregions, a classification of insufficient detail if the enormous ecological complexity known in the region is taken into account. A system of ecological classification adaptable to the large diversity of ecosystems and associations of the region, and to their size, which is relatively small if compared with the continental mass of North and South America, is needed and its development should not be postponed.

149. In order to speed the solution to this problem, it is necessary to start monitoring and preparing rapid ecological evaluations and studies of the existing ecosystems in each park and reserve, or in units of protected areas situated in the same region. A rapid ecological evaluation consists of making a rapid inventory of mammals, birds, reptiles, amphibians, fish, invertebrates in general, and plants (either trees

or forest species and of wetlands), and all other taxa that may be of some interest. Enumeration of species according to families is presented together with information about natural communities, their preferred habitat, their present status (abundant, rare, endangered, etc.), and must include any other information considered useful for conservation purposes.

150. Existing ecosystem studies provide an analyses and detailed descriptions of major ecosystems and the associations that exist within a certain protected area or within a group of areas. Some of the most typical ecosystems in Mesoamerica are wetlands (including a great number of associations depending on elements such as salinity and water storage), dry forests, cloud forests, paramos, coral reef and rain forests (also presenting some associations depending on rain, topography, exposure to wind and other environmental factors).

151. These studies, in addition to providing an inventory of the ecosystems and existing associations, should include as detailed a description as possible for each ecosystem, an analysis of its representativeness and a study of its fragility and present and potential threats.

Capacity Building and Regional Exchanges

152. Most officials responsible for the management of protected areas lack the capacity required to perform their duties at a professional level. The main reasons are: 1) although many of the protected area officers graduated from technical schools specialized in agronomy, geography, nature-related tourism, etc., they have not received specialized instruction on the management of national parks or reserves for biodiversity conservation; 2) although many protected area officers have received training in biology most courses given on wildlife-related topics are much too broad and fail to provide comprehensive training on protected area management and planning for wildlife; and 3) because of regular staff turnover and low salaries, the officers that have received some training are forced to seek more lucrative employment elsewhere, including work as tourist guides, among other related activities. To address these problems, training is urgently needed not only for government staff of protected areas but also for the staff of conservation NGOs related to administration, research, development and use of protected areas.

153. The region's protected areas are of great importance at the national, regional and global levels because of the goods and services they provide. In order to sustain these benefits over the long term, in addition to an investment in capacity building, the protected areas require appropriate facilities to more effectively serve visitors - recreationists, tourists and researchers - and to efficiently manage biodiversity of the protected areas for conservation. These facilities would include information booths to provide information to visitors and to collect entrance fees, housing for permanent or temporary staff members, a center for visitors where they can enjoy displays on natural resources and for cultural activities; interpretive trails with descriptive labels translated into other languages, areas for dining and camping with sanitary facilities; biological stations to accommodate researchers; and signs, dioramas and other exhibits with information and interpretation services. Moreover, equipment and materials are needed to permit staff to execute their conservation mandate.

154. In spite of these shortcomings, protected areas are still perceived as effective tools for conservation of biodiversity in the Mesoamerican region. However, any conservation strategy must take into account the biodiversity that lies outside of these areas (Gilmour, 1994). The purpose of a buffer zone is to maintain biodiversity outside of the core area and to simultaneously broaden species habitat in the region through the promotion and implementation of biodiversity friendly and sustainable activities.

155. A buffer zone should be seen as an area that supports a diversity of land uses located around a protected area's strictly controlled core zone and that separates the core zone from more intensive land use systems located at the periphery of the buffer zone.

156. Some of the sustainable buffer zone activities that might be promoted and strengthened are the certified management of natural forests, agroforestry, shade coffee, organic cocoa, conservation easements, natural private reserves, extractive reserves, watershed protection for flood control and/or power generation, management of indigenous territories, agroforestry and tree nurseries for native species.

157. There are a number of buffer zones in the region where the compatibility between conservation and restoration of biodiversity can be demonstrated. As such, this project will promote, through regional exchanges and pilot projects, sustainable activities in buffer zones that are not well managed or developed and that are located next to important reserves important for biodiversity conservation and that hold potential for ecotourism and scientific research.

158. Tourism is an activity that has provoked great interest in the region, particularly ecotourism. For this reason a motion for promotion of regional tourism was approved during the XVIII Summit of Central American Presidents, held in Montelimar, Nicaragua, in May 1996 (Solis, 1996). This plan encourages investments and incentives in ecological tourism and the promotion of Central America as a tourist destination.

Public Involvement and Awareness

159. In Mesoamerica, conservation education is at the initial stages of development. Although there has been some progress in this regard in every country, and many education projects have been implemented by conservation NGOs, a more sustained and comprehensive public awareness effort is required to achieve the necessary impact on the practices, customs and awareness of the public, and regional decision-making, vis-à-vis conservation of biodiversity. Protected area staff need to develop more sophisticated programs of biodiversity education for young people to stimulate their understanding and involvement in conservation activities, workshops, and other related activities.

160. In order to improve biodiversity conservation education in the region, this project will introduce biodiversity issues into the syllabus of schools, produce teaching materials and strengthen training programs for environmental journalists.

161. Although general knowledge about the richness of biological diversity in the region exists, available documentation on this topic in a user-friendly format is insufficient to make the case for the value of biodiversity conservation to public officials, decision-makers, academics, and other interested parties. This information gap curtails the application of appropriate management policies and the development of national and regional strategies for biodiversity conservation and limits the ability of officials to negotiate international cooperation on a more informed basis.

162. The strengthening of participation by conservation NGOs is justified by the fact that in all the Mesoamerican countries these organizations play an important role as both fund-raisers to support protected areas and as managers of systems of private natural reserves. In addition, in many countries of the region, NGOs fulfill many State functions including the management, development and direct protection of some national parks and legally established reserves. The project will also support grassroots leaders (farmers, indigenous populations and Afro-American groups) interested in participating in the protection of their surroundings (often within or around protected areas).

Policy Harmonization

163. With respect to legislation, it is important to note that the *Convention on Biological Diversity*, approved during the United Nations Conference on the Environment and Development, held in June of 1992 in Rio de Janeiro, Brazil, and the *Convention for the Conservation of Biodiversity and Protection of Priority Wildlife Areas in Central America* have been ratified in the first case by all the countries of

Mesoamerica, and in the second, by all Central American countries. Although in Central America there are other legal instruments regarding environmental issues, these two conventions are the most important in relation to conservation of biodiversity.

164. These conventions are general frameworks that require more specific laws for effective application at the regional level. It has been recommended that the integration of the protected areas of Central America be strengthened by a specific protocol to the Central American Convention on Biodiversity (Ankersen, 1994). Some of the issues that have not been included in the Central America Convention which may require a protocol are management guidelines, harmonization of legislation, procedures for studies on cross-border impacts, financial mechanisms, criminal aspects and conflict resolution (Ankersen, 1994). As well, in order to achieve real effectiveness of the two international conventions, the protocol should be ratified by Parliaments in each country of the Region.

165. Currently, the legislation on protected areas and conservation of biodiversity varies from country to country. While some countries have made much progress with respect to the creation of institutions and the establishment of regulations that ensure the integrity of protected areas and their appropriate administration and development, in other countries environmental legislation requires revision and updating. For example, in some countries agrarian legislation requires deforestation so the owner may have the right to register the property. This incentive to destroy biodiversity is a clear threat to conservation. The approval of a regional protocol would serve as a template for harmonization of conservation legislation in Mesoamerica.

166. In relation to environmental policies vis-à-vis protected areas, management policy for natural and cultural resources varies from country to country. In general terms, there are no management policies, defined as such, in any country of the region. Although the governmental agencies in charge of the administration of protected areas make decisions about their management, their decisions are based on the best judgement of the protected area officials but not on policies previously defined and officially approved.

167. Finally, there is insufficient knowledge of the biodiversity existing in the region as well as in each of the protected areas of the system. Although some of the national parks and equivalent reserves have been established for over thirty years, with a great many in existence for over ten, the information about biodiversity is limited to a very few specific investigations that have been carried out. Information on ecosystems and existing vegetation associations in each protected area is also limited.

B.2 EXPECTED END OF PROJECT SITUATION

168. At the end of the six-year life of the project, the MBC Programme will consist of:

- a representative, Regional Operations Coordinating Unit capable of coordinating, planning, monitoring, evaluating, and mobilizing resources for the long-term establishment and maintenance of the Corridor;
- a Strategic Action Plan for the long-term consolidation of the Corridor at both national and regional levels. Over the course of the project, three Strategic Action Plans will be produced (years one, three and six) reflecting priority activities required for the effective establishment and operation of the Programme. Consequently, these Strategic Action Plans will reflect an iterative and sequential process of "adaptive management" involving regional stakeholders;
- appropriately harmonized national and regional policy frameworks to support consolidation of the MBC system and its national and local expressions;
- an information and monitoring system to ensure ongoing, systematic generation and access to relevant information regarding the status of the MBC, its biodiversity, the economic development of its human communities, bilateral and multilateral support to conservation and development projects

in the MBC, legal and policy analyses and reforms, as well as capacity building programmes and initiatives;

- a capacity building sub-programme to strengthen the region's principal stakeholder groups and the existing cadre of planning, management and operational personnel in the different productive and conservation sectors, and to catalyze the incorporation of biodiversity and MBC themes into formal and non-formal educational programmes at both national and regional levels;
- an awareness raising and outreach sub-programme aimed at increasing the knowledge and awareness of civil society and governments of the value of biodiversity to the region's sustainable development;
- concrete mechanisms for the participation of stakeholder groups in national and regional planning, management and monitoring of MBC development and sustainability;
- a series of key regional products derived from the priorities identified in the Strategic Action Plans aimed at: a) jump-starting MBC consolidation efforts and activities at a programmatic level, b) gaining knowledge and experience of key problems and potential solutions of regional significance to the MBC, and c) at maintaining and broadening political and popular support for the MBC. This would include a region-wide Ecosystem Restoration Strategy, recovery of indigenous knowledge of biodiversity and its uses, regional analysis of international trade in biodiversity resources, regional analysis of tourism and positive and negative effects on biodiversity, etc.

169. Based on the success indicators identified for the proposed regional activities, the following outcomes are expected at the end of the six-year life of the project:

- Improved conservation status of Mesoamerican biodiversity through support to the consolidation of protected areas.
 - Increased knowledge and data collected about the species and ecosystems of the Region.
 - Increase in the level of public awareness of the value of goods and services provided by forests and protected areas.
 - Contribution to the recovery of degraded ecosystems in specific areas of the region.
 - Strengthened institutions and organizations involved in the administration, protection and management of the Mesoamerican System of Protected Areas, including cooperation in cross-border management of Protected Areas.
- An official document on Management Policies for the Mesoamerican System of Protected Areas.
- The protocol for the Convention on Biological Diversity and to the Central American Convention on Biological Diversity prepared and under the ratification process.
 - A study, based on IUCN's work and other information-gathering initiatives, on the status and management capacity of protected areas in Mesoamerica edited, published and distributed.
- An updated study on the biodiversity conservation status in Mesoamerica published and distributed.
- A system of ecological classification for Mesoamerica prepared, published and in use.
 - A summary about the existing biodiversity in the region, with a brief version for public dissemination prepared and published.
 - Primary and Secondary school syllabi modified and officially accepted on biodiversity conservation and related subjects.
 - Teaching material on biological education and biodiversity conservation for teachers published and distributed.
 - 1,600 teachers trained in methodologies for biodiversity education and the use of the teaching material.
 - 200 Journalists and communicators educated on global and regional environmental issues.
 - 150 dissemination actions in mass media in the 8 countries of the region to increase the knowledge of the public, decision-makers and other involved actors.

Improvement of the capacity to manage, administer and protect natural resources, of at least 300 people: resource managers in the protected areas and forests, communal leaders, municipal authorities and staff conservation NGOs.

- A regional study to show the economic value of environmental services from the forests and protected areas prepared and published.
- A bill of law to internalize environmental services from the forests and protected areas in the majority of participating countries drafted and approved.
- A regional strategy to recover ecosystems, prepared, published and under the process of approval.
- Functioning regional network of information on biodiversity, protected areas and landscape recovery at the CCAD.

B.3 TARGET BENEFICIARIES

Global level

170. The Mesoamerican region corresponds to only 0.51% of world's land area, and yet is estimated to contains about 7% to 8% of the planet's known biodiversity. This is a conservative estimate given that knowledge about total species numbers existing in the tropics is elementary. Implementation of direct and indirect conservation actions will result in greater biodiversity being conserved, with targeted studies providing increased knowledge of its functions and interrelations, as well as its uses for the production of goods and services for society. Moreover, the biodiversity of Mesoamerica will benefit from the application of measures and joint actions that will permit the conservation of migratory species and ecosystems with cross-border distributions. Furthermore, at the global level there will be a decrease in carbon dioxide emissions through the retention of carbon accumulated in forest biomass that covers the Region and from the multiple initiatives to plant forests within deforested areas of the MBC.

Regional and national levels

171. The Central American Commission on Environment and Development, CCAD, the Central American Council of Protected Areas and Forests, CCAB-AP, diverse government agencies and institutes, as well as organizations involved in natural resources management at the regional level, will all benefit from the enhancement of their management capacities through project-related training efforts, the implementation of the MBC, and through their involvement in the multiple projects that will originate from the MBC agenda. This regional project will provide assistance to regional organizations related to the development of ALIDES and the MBC, including organizations from SICA, conservation and sectoral organizations, and farmer and indigenous organizations at the regional level.

172. Furthermore, this project will give priority in supporting organizations which are responsible at the national level for the dissemination of sustainable management principles and conservation concepts embodied in the corridor, and who are involved in planning, design and promotion of multiple local activities for the construction of the MBC. Thus, this project will support national authorities entrusted with forests and protected areas in the development of the MBC.

Local resource users

173. The development of the MBC will contribute to conservation activities, sustainable use of biodiversity, and landscape restoration which will decrease the vulnerability of resource users to natural disasters and will ensure environmental integrity, both key to securing the sustainability of their production activities.

B.4 PROJECT STRATEGY AND IMPLEMENTATION ARRANGEMENTS

Project Concept and Strategy

174. The idea of creating a Biological Corridor in the region was presented in 1992 at the Central American Convention on Biodiversity. The Central American Council of Protected Areas was asked to develop a Mesoamerican System of National Parks and Protected Areas "as an effective Mesoamerican biological corridor" (CCAD, 1992a). Subsequently, at the Central American Alliance for Sustainable Development, approved in 1994, the development of biological corridors and protected areas was recognized as the best way to protect Central American biodiversity, and the Presidents of the Mesoamerican countries committed their administrations to establish the Central American Biological Corridor (IICA, 1994).

175. In 1994, the University of Florida, under the Paseo Pantera Project, published a report regarding the feasibility of establishing a biological corridor in Central America (Carr, Lambert & Zwick, 1994). The report depicted a virtually unbroken corridor, mainly along the Caribbean coast. The concept of biological corridors appeared as a mechanism to provide greater viability to the conservation of species found in wild areas with the purpose of facilitating species' natural movement from one protected area to another or between areas of an ecosystem. This would allow seasonal migrations, altitudinal and latitudinal migration, and the flow of genetic material among isolated populations of the same species (dispersion).

176. An important limiting factor for the realization of the corridor concept in the region was the lack of scientific information regarding species ecology. However, given the importance of biodiversity conservation in the region, decisions cannot be delayed due to a paucity of information about species ecology. Practical experience on the demarcation of smaller biological corridors in the region will serve as a guide. As an example, the Talamanca-Caribe Biological Corridor project can be a useful guide to how participation of the local community in the planning and start-up process can be accomplished. The project's strategy has been to establish strategic alliances with political, social and economic actors of the area as part of developing a framework for the implementation of the corridor (García, 1996a).

177. In 1996, the CCAD, with GEF funding (UNDP), developed a preparatory phase of the Mesoamerican Biological Corridor project. The objective of this phase was to plan the extension and modification of existing protected areas, the creation of new protected areas and the design of biological corridors to connect protected areas when needed and feasible. As a result of this project, each one of the seven countries produced technical reports (Archaga & Marineros, 1996; Castañeda, 1996; García, 1996b; Godoy & Cardona, 1996; Incer, 1996; Reyna, 1996; and Tovar, 1996). This project document is based on the outputs and processes engendered by the preparatory phase.

178. The Mesoamerican Biological Corridor (MBC) thus constitutes a central development concept for the sub-region, integrating conservation and sustainable use of biodiversity within the framework of sustainable economic development. The agreement to establish the MBC was formally approved in February 1997 by the Ministries responsible for natural resources and environmental affairs in Central America and officially endorsed by the Presidents of the region in their XIX Summit Meeting of July 1997.

Link with national biodiversity conservation initiatives

179. In the past and currently, a large number of national initiatives, and a lesser number of regional ones, have or are supporting the general goals of the MBC (see section A.2). However, with the exception of the Paseo Pantera project and the partial exception of a preliminary CCAD-UNEP-OAS initiative - subsequently incorporated into this proposal - none explicitly addressed or addresses the long-term establishment of the Corridor as a *regional system* integrating conservation and development. With development and conservation initiatives expected to continue in the future, unless a regional programmatic

184. Project implementation will largely be based in the eight countries participating in this Programme with a very basic and lean regional structure co-ordinating the implementation of in-country activities. This regional structure, called the **Regional Operations Co-ordinating Unit (ROCU)**, will be established as the primary technical, operational and managerial support arm for the Programme. It will respond to the Executive Secretary of CCAD or its equivalent in SICA and will be responsible for contracting, technical backstopping, fund management, procurement, disbursement, programme administration and monitoring. It will consist of a Regional Project Co-ordinator (also referred to as ROCU Coordinator), supported by four technical experts (3 paid for by GEF and 1 by GTZ) and administrative support staff. The majority of project activities will be implemented through subcontracts to national or regional entities or individuals. ROCU will formulate Terms of Reference for subcontracts, lead bidding and selection procedures, coordinate subcontracting to ensure synergy and complementarity among activities, monitor implementation of subcontracts, and evaluate their products.

185. The work of ROCU will be supervised by a **Project Steering Committee** with the following constituents: the ROCU Coordinator, representatives of CCAD, CCAB-CCAP, CTA of the GTZ-MBC initiative, the Technical Advisory Group, UNEP, UNDP, World Bank, and the Consultative Group.

186. ROCU will also benefit from advice and support from a Technical Advisory Group and a Consultative Group. The **Technical Advisory Group (TAG)** will consist of international, regional and national experts either related to relevant natural resource institutions and conservation groups or with high-level expertise regarding critical themes of the project (for example, reform and harmonization of policies, development of incentives, financial resource mobilization strategies, strategic planning, communications and outreach). TAG will provide strategic advice and technical support and assistance to ROCU in fulfilling project implementation. The **Consultative Group (CG)** will comprise a much broader group of concerned stakeholders namely, representatives of regional groups including NGOs, indigenous and farmer organizations, private sector associations, and Municipal Authorities. Members of the CG will provide advice and concrete suggestions on priorities and ways of advancing the goals and objectives of the MBC Programme while taking into account stakeholder concerns.

National operational and decision-making structure

187. At the country level, the main operational link between ROCU and CCAD on the one hand and in-country activities on the other, will be a **Regional Liaison Officer** in each of the eight participating countries (5 supported through GTZ resources and the remaining 3 through GEF resources). The Regional Liaison Officers will serve as national focal points and provide technical and operational support to the **National MBC Commissions**. These Officers will not only work with the National MBC Commissions, but also with a **National Inter-ministerial Coordinating Group** (Forest, Protected Areas, and Water Resource Agencies/ Departments/ Administrations), **Donors Group** (IDB, WB, USAID, EU, DANIDA, GTZ), and an **Advisory Group** (NGOs, indigenous associations, municipal authorities, agro-exporting corporations and such). The purpose of these groups will be to provide a ready and accessible means for participatory planning and the identification of synergies across various initiatives.

B.5 REASONS FOR ASSISTANCE

188. This project is within the scope of the Forests Operational Program of the GEF. It is also within the priorities set by the CBD under Article 8, and particularly under Annex 1. The project uses the incremental costs approach to obtain added global biodiversity benefits to those of existing and planned national efforts in the region (see Annex 2). Maximum protection of the unique biodiversity of Mesoamerica requires national efforts, such as the ones currently being made with GEF and other financing and those planned, but also regional efforts to ensure that geographical continuity effects are also obtained: *a continuous conservation system extending throughout the region* has greater conservation power than the sum of isolated local or national efforts. Countries are aware of this important biodiversity management principle, but cannot fund such a regional endeavor out of their own limited resources. Therefore, to maximize the biodiversity benefits of such a large conservation initiative in Mesoamerica, the support of GEF is needed.

Reasons for UNDP participation as an Implementing Agency

189. The United Nations Development Program (UNDP) is interested in supporting regional efforts to attain the principles of sustainable development. Therefore, it considers the MBC Programme a priority activity contributing to this goal in the region. UNDP has an institutional presence in all 8 countries where this strategic program will be implemented thus providing lower-cost administrative management than the costs paid by the organizations and consulting firms. In relation to monitoring and evaluating the project, UNDP will have a leading role in administrative and financial aspects.

Reasons for UNEP participation as an Implementing Agency

190. The United Nations Environment Programme (UNEP) has a thematic interest in the MBC strategic programme, as well as a programmatic focus in supporting cross-border management of fragile ecosystems. Through its regional office in Mexico City, and through its Central American members, UNEP will offer technical assistance in achieving the objectives of the information component (the design of CORRENET, strategies to develop information products, and the use of advanced technology for data analysis). It will also provide assistance to the education and policy harmonization components (promotion of national legislation to guarantee the functioning of environmental services and the negotiation of conventions). Furthermore, UNEP will specifically execute training for teachers in the region, as well as the preparation of the biological education directory and handbook.

Reasons for GTZ participation as an implementing agency

191. GTZ, the German Technical Cooperation, is a UNDP-UNEP partner in issues related to the strengthening of investments in the construction of the MBC at national level. It will help to maintain the strictest technical focus and will help in the coordination of different institutes at the national level.

Reasons for Danida assistance

192. Danida will provide assistance based on its long-standing interest in rural development and issues affecting the well-being of women, campesino groups and indigenous communities. Danida recognizes the central importance of grassroots participation to the stability of the MBC consolidation efforts, and as such, will help promote and maintain the participation of these key stakeholder groups.

B.6 SPECIAL CONSIDERATIONS: PARTICIPATION AND SUSTAINABILITY

Participation

193. The preparation of this project has involved a large number of people who have participated through various meetings, workshops and consultations at the regional, national and local level. Many leaders, governmental and non-governmental officials, representatives from academic organizations, and from indigenous and farmers organizations have participated in these fora. These meetings have taken place over a period of more than 2 years, with the participation of more than 500 individuals the most recent ones occurring between April and August of 1998 with the Directors of Services or Departments of Protected Areas from the 8 countries.

194. National consultations took place in 1996 in Guatemala, Belize, Honduras and Panama while most recent regional meetings took place in Panama and Guatemala. A detailed map of the region was produced within the framework of this preparatory phase of this project. This map defines the different parts of the Biological Corridor, and classifies them in terms of their potential contribution to its consolidation, with objectives ranging from protection to multiple and sustainable use with better practices in zones of multiple use and interconnections. All of this reflects the integration of eight national maps created by experts of the region.

195. During these meetings, participants considered the weaknesses of the agencies and institutions in charge of the administration of protected areas and natural resources, and determined their requirements and financial needs. They identified stakeholder groups interested in the co-administration of protected areas and in the promotion of more sustainable agroforestry practices in buffer zones. Furthermore, they identified the negative impacts that result from the application of specific policies to the administrative efficiency of institutions responsible for planning and managing natural resources, and a wide variety of activities at the local, national and regional level important for establishing and strengthening protected areas, and for mitigating the human impact on biodiversity through sustainable uses. They also identified further opportunities for participation by local stakeholders in the development of the Mesoamerican Biological Corridor.

196. Stakeholder participation in the **Programme for the Consolidation of the Mesoamerican Biological Corridor** will be systematically promoted and structured through the establishment of National MBC Commissions, a Consultative Group of regional stakeholder organizations, and formation and operation of multistakeholder thematic commissions to analyze key issues for the success of the consolidation of the MBC system and to provide recommendations to achieve them.

197. Stakeholder participation will be systematically promoted through the activities of the Programme's awareness-raising, outreach and participation sub-programme. At the same time, their participation will be improved by strengthening their analytical, conceptual, planning and proposal development and monitoring skills through the Programme's capacity building sub-programme.

198. The Mesoamerican Biodiversity Forum (mediated by regional organizations), and the electronic fora on CORRE-NET, will provide widely accessible public venues for continuous discussion of the scope, objectives, and activities of the Programme and the MBC. At the same time, regional stakeholder groups will be assisted in establishing and improving internet connectivity and in improving their access to and generation of information for CORRE-NET. In the Paris Conference of October 1998, an agreement was reached between donors, governments and NGOs to establish a Group of Friends of the MBC at the international level that will also promote the participation of NGOs and other parties not attending.

Sustainability

199. Sustainability of the *Programme* overall is significantly bolstered with the foregoing emphasis on stakeholder participation, the development of planning, management, monitoring and resource mobilization capacities of the Regional Operations Coordinating Unit, CCAD (Environment Secretariat), the CCAP, and the National MBC Commissions, the National Departments of Protected Areas in the entire region, and by the recent Ministerial and Presidential Resolutions calling for the establishment of the *Programme* (see Annex 1 for Presidential Resolution). This was also seen in its continued support at the III Meeting of Presidents of Tuxtla that took place on 17 July 1998 in San Salvador. Financial sustainability of the *Programme* itself will be actively sought through proposals to SICA for the development of appropriate economic instruments and financial mechanisms (e.g., scaled fees for environmental services). Programme sustainability will be enhanced through the assistance of a high-level Technical Advisory Group, comprised of national, regional and international technical experts and institutions.

Other Considerations

200. The formulation and execution of this project also includes the following special considerations:

Sustainable Development of Buffer Zones and Biological Corridors. Sustainable development of buffer zones adjacent to protected areas is mentioned in Article 8 of the Convention on Biological Diversity. This clause states that “every Contracting Party, in as far as is possible and as may be advisable: e) will promote appropriate and sustainable environmental development in zones adjacent to protected areas, with a view to increasing the protection of these zones” (United Nations, 1992).

Promoting Conservation Education. The development of this activity coincides with Article 13 of the Convention on Biological Diversity. This Convention states that the Contracting Parties will promote and foment the understanding of the importance of biological diversity conservation, as well as its dissemination through means of information, and the inclusion of these matters in educational programs (United Nations, 1992).

Development of Research Program to Build the Knowledge Base on Biodiversity of Selected Protected Areas. Knowledge about the biodiversity of habitats and species from a national park, or an equivalent reserve, has the enormous benefit of constituting a tool of great importance for defending this protected area against development projects that may endanger its integrity. Such knowledge is also beneficial for demonstrating the global importance of the site at the time of negotiating international technical and financial cooperation.

Assessment and Internalization of Costs for Environmental Services in Protected Areas of Mesoamerica. This study will determine and establish an economic value for environmental services that the protected areas and forests of the region offer, not only at the national level, but also at the regional and global level. It will also propose the application of legal and financial means that permit compensating these areas for supplying these services.

B.7 COORDINATION ARRANGEMENTS

Coordination with regional initiatives

201. The project will coordinate with the following initiatives in order to better realize the long-term vision of the establishment of the Mesoamerican Biological Corridor.

Priority initiatives supported by the BMZ-GTZ from Costa Rica, DANIDA from Managua, the EU from the PFA in Panama, and by USAID-PROARCA from Guatemala.

- All GEF-financed initiatives in biodiversity conservation.
- Activities by IUCN to conclude the study on the State of Protected Wild Areas of Mesoamerica.
- The National Aeronautics & Space Administration of the United States (NASA), for the systematic acquisition of updated satellite images of the Mesoamerican Region, on the basis of the collaborative convention signed between the CCAD and NASA.
- The Environmental Journalists Network for their full involvement in dissemination actions.
- Regional organizations representing farmers and indigenous organizations (CICAFOC, CICA, ASOCODE, etc.).
- Coffee, rubber, cocoa and cardamon growers, forest guilds, and other organizational requests that bind private producers.

B.8 COUNTERPART SUPPORT CAPACITY

CCAD Institutional Capacity

202. The Central American Commission on Environment and Development (CCAD), responsible for the coordination of Environment and Natural Resource Ministries, will serve as the counterpart for this Project. It enjoys a solid political, legal and organizational base that can offer suitable technical and administrative support for facilitating the execution of this Project at the Regional level. In addition, CCAD has an Executive Secretary (provided by the Environmental Office of the General Secretary of Integration, SICA), with a technical unit in biodiversity, environmental legislation and information matters for conservation.

203. The seven member countries provide technical support and expertise to CCAD. In particular, these countries have assigned nationals to the CCAB and CCAP as forest directors. CCAD has already participated in other projects that are currently being executed in a decentralized manner as a regional counterpart. These projects are related to such issues as biodiversity, environmental sanitation, management of watersheds, policies and legal framework agreements, development of the marine and coastal zone, and other environmental issues. CCAD, therefore, is the most appropriate counterpart for this Project.

Belize

204. The Office of Conservation from the Ministry of Natural Resources will be the national counterpart of the project. At present funding of protected areas in Belize comes principally from the Department of Fisheries and Forests budget entries, as well as from international economic assistance. Belize has made a lot of progress with PACT resources as well. Marine reserves and archeological sites can charge entry fees to visitors and use these funds to cover recurrent costs of management and operations. Private reserves can also charge such fees.

Costa Rica

205. SINAC will contribute its technical and operational capacities in the form of counterpart personnel, vehicles, installations, and communication systems. SINAC will provide office space and telecommunication facilities as required. SINAC will also facilitate transport of personnel to conservation areas, as well as the required transport for project execution at the field level. Also SINAC's geographic information system will be available to the Project for the recording and analysis of information referring to biological corridors.

206. National counterpart support also includes the financial resources to be applied to the corridors through the mechanism of Forest Protection Certificates (FPC). Prioritization of the allocation of

resources for forest conservation represents, perhaps, the greatest institutional support for the consolidation of the proposed corridors.

El Salvador

207. The Mesoamerican Biological Corridor Project will be embedded within the National Environmental Strategy. This will assure it the highest priority within private and public organizations related to the conservation and sustainable development of natural resources. National counterpart support contributions will come from the Natural Resources Head Office of the Ministry of Agriculture, with a strong link to the new Ministry of Environment.

Guatemala

208. The National Council on Protected Areas (CONAP) will be the national Project counterpart. CONAP will offer office space, technical and secretarial support and, possibly, the use of the equipment and supplies. As soon as other support for the Guatemalan System of Protected Areas (SIGAP) is in place, CONAP will offer development of pilot activities in the construction of local corridors.

Honduras

209. COHDEFOR, the Department of Protected Areas and Wildlife, as Project counterpart in Honduras, will contribute some human resources and technical equipment to facilitate the execution of the Project. COHDEFOR has regional offices -- La Ceiba, Yoro, and Bonito Oriental -- that will also provide basic operational support so that Project activities can be initiated without much delay.

Mexico

210. The Government of Mexico will support the Mesoamerican Biological Corridor Project from its resource allocations for protected areas. Counterpart support includes professional and administrative personnel, office space in the capital (National Institute of Ecology) as well as in the five southern states that are part of the MBC, supplies, and office as well as field equipment. The National Institute of Ecology will be the institution acting as official counterpart for this Project. However, a great number of other institutions and organizations will also participate in diverse ways in the development of this Project.

Nicaragua

211. The national counterpart for the Project will be the office of Fish, Fauna and Protected Areas of the Ministry of the Environment and Energy (MARENA). The National Committee on Biodiversity in Nicaragua has only recently been created and is in the process of becoming a fully functional entity. MARENA has taken on the responsibility for ensuring that this Committee is fully operational when project activities commence. Also, MARENA will have overall responsibility for overseeing the progress of the Project.

212. MARENA has worked with several international projects, and are currently acting as the national counterpart to several international cooperation projects in the field of conservation and sustainable use of natural resources. With some trained personnel in natural resources management and conservation and offices in Managua, MARENA will be able to provide some counterpart support to the project.

Panama

213. The National Environmental Authority of Panama (ANAM), formerly the National Institute of Renewable Natural Resources (INRENARE), will serve as national counterpart to the Project. ANAM

can provide counterpart support from its pool of technical staff, equipment, research work, and GIS facilities.

C. PURPOSE AND GENERAL OBJECTIVES

214. The principal objective of this project is the establishment of a *Programme for the Consolidation of the Mesoamerican Biological Corridor*. Consolidation of the MBC is expected to be a long-term, multi-dimensional process. This project will, over six years, build, integrate and initiate implementation of the basic components of the *Programme*, as detailed below, by providing the technical assistance that will allow the governments and societies of Mesoamerican countries to jointly establish the MBC as a land-use planning system integrating conservation and sustainable uses of biodiversity within the framework of economic development priorities over the medium to long term.

215. This functional system will be the result of the formation and consolidation of national and locally based initiatives in pursuit of biological conservation and connectivity. The general strategy of this project is to provide essential services and information at the regional level to ensure a coherent approach across national boundaries through identification of gaps in programmatic coverage, identification and dissemination of best practices, effect economies of scale for monitoring, information dissemination and training, present a regional programme approach to stimulate and leverage donor interest, and establish similar levels of technical and institutional capacity across the region.

D. IMMEDIATE OBJECTIVES, OUTPUTS AND ACTIVITIES

IMMEDIATE OBJECTIVE 1: PROGRAM COORDINATION AND STRATEGIC PLANNING

216. Consolidation of a fully functional MBC is a long term process which will require a technical Regional Operations Coordinating Unit (ROCU) representative of the principal themes and stakeholder concerns on which the success and sustainability of this initiative will depend. As such, the coordinating group will respond to the SICA Environment Secretariat (presently, CCAD) and liaise directly with Ministries of Natural Resources and Environment, Protected Areas Agencies, National MBC Commissions (comprised of representatives of the principal stakeholder groups, including the national directors of ongoing GEF and other related projects), and all projects providing support to the construction and consolidation of the MBC.

217. ROCU's principal responsibilities will be coordination, planning, management, monitoring and resource mobilization for the effective fulfillment of the Programme's principal components and objectives as described in detail below. For this purpose, the regional coordinating group will be directly responsible for the formulation of periodic Strategic Action Plans which will define the priority activities - in each of the Programme's components - required to achieve the short and medium term goals leading to the overall, long-term consolidation of the MBC. The Strategic Action Plans, while continuing to embody the Programme's components, will be adapted to reflect progress made in MBC consolidation and changing circumstances at local, national, regional and global levels.

218. Under this component, the project will establish ROCU based on a competitive, consensus-based process, provide its members with analytical and conceptual training regarding the scope and objectives of the MBC, build their capacities to effectively fulfill their planning, managerial, coordinating, and monitoring responsibilities, and establish the group's basic operational infrastructure.

Output 1.1 Functional Regional Operations Coordinating Unit (ROCU) ascribed to the CCAD-ES as Executing Agency. ROCU will coordinate, plan, monitor and evaluate Programme establishment and implementation over the long term. It will respond to the regional organizations of SICA and relate directly to the coordination of the MBC in each country, especially the National MBC Commissions.

Activities:

- Contract ROCU's General Director, the Regional Technical Team (4 technicians), and administrative support staff (4 people).
- Design and implement eight training workshops for the ROCU members, including workshops regarding ALIDES, SICAP, natural resources-related institutional frameworks in Central America, and other specific issues related to different project components.
- Establish ROCU infrastructure (including identification, purchase and assembly of communications equipment, etc.)
- Develop administrative capacities, including review, adaptation and development of bid procedures for subcontracts.
- Select technical staff to liaise effectively, at the national level in each one of the eight countries, with the Programme and develop coordination mechanisms with other national or regional initiatives related to this project.
- Establish formulation and monitoring procedures for the implementation of subcontracts.
- Develop the evaluation strategy and indicators for the performance of ROCU.

Output 1.2 High level Technical Advisory Group (TAG) to assist ROCU in the execution of its functions including the development and monitoring of subcontracts. TAG will be composed of international, regional and national experts either related to relevant natural resource institutions and conservation groups or with high-level expertise regarding knowledge, protection and sustainable use of biodiversity.

Activities:

- Draft and agree on TAG's Terms of Reference and operational responsibilities.
- Identify and select key parties to compose the TAG.
- Appoint and establish the TAG.

Output 1.3 Consultative Group to provide ROCU with perspectives and advice from regional stakeholder groups. The CG will be composed of representatives of regional stakeholder groups, including farmers, indigenous peoples, NGOs, the private sector, and municipal authorities.

Activities:

- Draft and agree on CG's Terms of Reference and operational responsibilities.
- Identify and select key parties to compose the CG.
- Appoint and establish the CG.

Output 1.4 Steering Committee composed of the ROCU Coordinator and one representative each from: the CCAD, CCAB-CCAP, the Technical Advisory Group, UNEP, UNDP, World Bank, the GTZ-MBC initiative, and the Consultative Group.

Activities:

- Draft and agree on Steering Committee Terms of Reference and operational responsibilities.
- Select Steering Committee representatives.
- Draft and agree on schedule of meetings and general operational modalities.
- Draft and agree on agenda for first meeting of the Steering Committee.

Output 1.5 Consensus-based conflict resolution mechanisms.

Activities:

- Analyze conflict potential around the establishment of the MBC at local, national and regional levels (economic, social, environmental; between projects and priorities; between institutions; between agendas, etc.).
- Analyze and identify different existing and potential land-use options for the MBC (biodiversity conservation, ecotourism, shade coffee or cacao, fire and flood prevention, hydroelectric power generation, landscape recovery, etc.).
- Identify conflict resolution mechanisms (public fora, discussion groups, arbitration, etc.) at local, national and regional levels, including specific communication channels to structure and facilitate dialogue and the dissemination of resulting agreements.
- Monitor development of conflicts relevant to the consolidation of the MBC and analyze patterns and outcomes for lessons learned.

Output 1.6 Strategic Action Plans for the MBC – the first by the end of the first year (initiation plan), the second by the end of the third year (stabilization plan), and the last by the end of the fifth year (sustainability plan), including elements for the strengthening of the CCAB-AP.

Activities:

- Establish a methodology for participatory Plan development and implementation.
- Identify and analyze thematic and geographic priorities to be taken into account in the development of the Plans.
- Initiate participatory development of the Strategic Plans.
- Publish and distribute the Strategic Plans regionally and internationally.
- Promote adoption of the Plans by CCAD-SICA.
- Develop and implement the Monitoring Strategy for the Plans, including progress and success indicators.
- Evaluate development and implementation of the first and second plans.

Output 1.7 Regional strategies focusing on different conservation priorities and themes are identified and formulated in close consultation with regional stakeholder groups and within the framework provided by the Strategic Action Plans.

Activities:

- Participatory formulation of a regional strategy for the conservation and sustainable use of biodiversity in protected areas and buffer zones to be presented to the CCAD for regional adoption.
- Participatory formulation of a regional strategy for the conservation and sustainable use of biodiversity in fresh and coastal/marine waters to be presented to the CCAD for regional adoption.
- Participatory formulation of a regional strategy for the restoration of biodiversity on degraded lands to be presented to CCAD for regional adoption.
- Participatory formulation of a regional strategy to facilitate the creation of biological corridors on private lands to be presented to CCAD for regional adoption.
- Participatory formulation of a regional strategy to promote, where appropriate, community co-management of protected areas and to stimulate the establishment and management of protected areas and buffer zones to be presented to CCAD for regional adoption.

IMMEDIATE OBJECTIVE 2: RESOURCE MOBILIZATION FOR THE CONSOLIDATION OF THE MBC

219. The capacity to mobilize and orient financial and technical resources towards agreed strategic priorities from a regional perspective is key to the full consolidation of the MBC. This will require training of the ROCU and the CCAD-ES, the Central American Council on Protected Areas, the Central American Council on Forests, and the Ministries of Environment and Natural Resources of the eight countries participating in this project as well as of those institutions and stakeholder groups which have or will have responsibility for the establishment of the MBC (identification of demands and financial gaps, potential sources of financing, including training and technical assistance to those institutions that develop and suggest new proposals to funding sources). This component will also establish and maintain a database on cooperation in the region, country by country, including projects, initiatives, critical issues, and technical and financial resources available or required for the future.

220. In parallel, this component will also include technical assistance and training to policy and decision makers regarding the identification, development and application of economic instruments (e.g., taxes, users' fees, preferential credits) to generate resources and/or promote alternatives to current production practices consistent with the goals of the MBC, as well as financial mechanisms to ensure channeling of resources to support conservation and sustainable uses of biodiversity and landscape recovery.

Output 2.1 Operational training-of-trainers program for ROCU, counterpart Government Agencies, National MBC Commissions, officers from the CCAD, CCAP-AB, and regional stakeholder groups on strategies for the mobilization of resources, criteria for the formulation of proposals, development and presentation of proposals.

Activities:

Identify MBC priorities and stakeholder groups to be covered by the training-of-trainers program, through consultation with primary regional stakeholder groups.

Design the training-of-trainers program on development of proposals and mobilization of financial resources, including indicators to monitor successful skills acquisition.

- Programme, implement, monitor and evaluate training-of-trainers activities.
- Review training evaluations and identify adaptations required to improve training programme.

Output 2.2 Resource mobilization training material and guidelines developed and disseminated to stakeholder groups essential to establishment of the Corridor, including counterpart government agencies for the project, those organizations forming the National Commissions of the MBC, and other regional stakeholder groups.

Activities:

- Develop materials and methods for use by stakeholder trainers.
- Design and reproduce materials.
- Disseminate the materials to stakeholder groups and organizations through their trainers.
- Monitor and evaluate the use of the materials by stakeholder groups and organizations.

Output 2.3 Roster of local, regional and international experts accessible electronically for the design and formulation of project proposals and the development of economic instruments for MBC construction.

Activities:

- Identify existing expert rosters in local, regional and extra-regional organizations.
Integrate relevant expertise from existing rosters and organize by MBC-appropriate themes.
- Incorporate the expert roster into CCAD's Corre-net.
- Publicize the expert roster through stakeholder groups.

- Manage the roster, including periodic updating, surveys of client satisfaction, analysis of demand and supply of expertise, and monitoring of use.
- Evaluate the expert roster.

Output 2.4 Database of cooperation projects and other MBC initiatives, including those supported with national and international funding.

Activities:

- Design the database.
- Record national and regional initiatives supporting the MBC.
- Map external cooperation within the MBC in conservation and sustainable uses.
- Identify geographic and thematic gaps, as well as specific opportunities for funding.
- Incorporate database into Corre-net.

Output 2.5 Portfolio of potential economic instruments and financial mechanisms aimed at sustaining biodiversity conservation and sustainable use, as well as biodiversity friendly economic activities in buffer zones and corridors.

Activities:

- Identify ongoing research and experience with development of economic instruments and financial mechanisms for conservation and sustainable production, and compilation of experts, institutions and relevant studies, documentation and information, as appropriate, with special emphasis on experience in the sub-region.
- “Map” experiences with economic instruments and financial mechanisms in the Mesoamerica region.
- Identify performance evaluations of economic instruments and financial mechanisms, and identify lessons learned.
- Based on information resulting from activities under other components and outputs, identify strategic areas or sites for preliminary identification of potential economic instruments applicable to biodiversity conservation and sustainable use.
- Compile a portfolio of the potentially most viable economic instruments and their areas of application, and prepare a report describing regional experience with economic instruments and the options available to address key issues of MBC consolidation.
- Design the database.
- Incorporate into Corre-net.
- Publish and disseminate the report.

Output 2.6 Series of multisectoral dialogues, debates and exchanges regarding the role of economic instruments in resource generation to sustain consolidation of the MBC, including modification of production systems and enhancement of conservation practices aimed at regional stakeholder groups and decision-makers.

Activities:

- Use information generated from activities under other components and outputs to identify principal financing needs of MBC consolidation over short, medium and long-term scenarios.
- Formulate an in-depth report on MBC consolidation financing requirements and opportunities, with geographical and institutional disaggregation.
- Identify representatives of regional stakeholder groups and decision-makers (including representatives from CCAD, CCAB, CCAP, CICAD, SICA, PARLACEN and different sectoral ministers) to be invited to participate in multisectoral dialogues and seminars and distribute background information.

- Design, develop and implement dialogues and seminars with technical content based on findings and recommendations of Output 2.5, whose goal would be to identify proposals for economic instruments and elicit commitments to policy review.
- Monitor general application of knowledge acquired during seminars and training events.

Output 2.7 Long-term plan for the mobilization of resources to support the construction of the MBC.

Activities:

- Based partially on the information and experience gained from the implementation of activities under this and other components and outputs, collect, analyze and disseminate lessons learned in Mesoamerica regarding mobilization of resources for conservation and sustainable rural development.
- Through workshops, seminars, consultations and interviews, define priorities for funding – including regional, sub-regional and cross-border funding opportunities - and develop a long-term resource mobilization strategy for MBC consolidation.
- Develop a resource mobilization plan emphasizing short, medium and long-term goals and actions at the regional level; the plan will include systematic support for the development of national, regional and local proposals based on MBC consolidation priorities and will support the channeling of proposals to appropriate funding sources.

IMMEDIATE OBJECTIVE 3: INFORMATION AND MONITORING

221. The MBC *information system* – Corre-net – will be designed specifically for the Mesoamerican Biological Corridor to allow efficient access to the large amount of existing data and information about the MBC, its biodiversity, conservation and development programs, and technologies, institutions and organizations involved. Information available will include maps, satellite images, ethno-botanical information, biodiversity inventories, and ecoregional and vegetation classification material. As well, it will provide examples of best practices and lessons learned regarding conservation and sustainable use of biodiversity (e.g., participatory or co-management schemes, agroforestry systems) mainly in the Corridor areas but not restricted to them. Examples will be included which reflect both positive and negative experiences, in order to extract the corresponding lessons. In addition, it is envisaged that Corre-net will contain an educational “tool box” for use by different users in activities related to the Corridor: fire control, how interpretive trails are made, establishment of agroforestry systems, sustainable forestry methods, co-management of protected areas, etc.

222. The majority of this information will not reside in the system itself, but rather will be accessible through electronic links to institutions and organizations which have relevant information and maintain databases and web sites. Information will be accessible to a wide range of users including government officials, civil society organizations, academic institutions, community groups and institutions, private enterprise, communications media, donors and other development and conservation actors. The formats in which the information will arrive to the final users will depend on access to equipment and on their capacities (Internet, CD-ROM, diskettes, audio/video, etc.).

223. Key regional stakeholder groups will be assisted in establishing connectivity, developing their own web sites, where appropriate, and building the capacities of constituents to generate and access Corre-net information and other information sources such as the Clearing House Mechanism of the CBD Secretariat and the World Conservation Monitoring Center.

224. At the same time, MBC Quarterly Reports will be produced to enhance the quality of participation of the wide variety of stakeholders in the MBC consolidation process. This Report will consist of

information regarding the benefits and progress of the MBC at local, national and regional levels, barriers to its successful consolidation with identification of means to their removal, lessons learned and best practices from projects both within the region and elsewhere, and other issues. While the content of the Report will remain the same, its presentation, including translation, will reflect the different stakeholder groups being targeted (Government, NGOs, sectoral representatives, communities and other stakeholder groups) and their capacities to access information.

225. **Monitoring** of the development of the MBC will constitute a key activity of the regional coordinating group which will enable it to effectively manage the *Programme* and the fulfillment of the corresponding Action Plans. Information generated by monitoring activities will be stored on Corre-net, by making appropriate use of Geographic Information Systems (GIS), and other relevant databases. For standardized in-situ monitoring at local and national levels, decentralized monitoring methodologies will be designed based on extensive stakeholder participation.

Output 3.1. Operational MBC information system (Corre-net) accessible through electronic networks (Internet).

Activities:

- Design Corre-net and develop strategy and plan for progressive construction by linking databases and webpages.
- Design and installation of MBC Webpage.
- Purchase and install supplementary equipment to maintain the MBC Web site.
- Review, improve and maintain the MBC Web site, on an ongoing basis.
- Design, prepare and disseminate the bimonthly bulletin about the MBC by email and place on the Web site.

Output 3.2 Mesoamerican Biodiversity Information Network (REDBIO – Red de Información sobre Biodiversidad en Mesoamerica).

Activities

- Design the technical network and establish national technical committees.
- Create electronic links between the organizations that generate the information and regional and national hubs.
- Strengthen the national hubs, identify information processes, and train managers of databases.
- Create a compendium of biodiversity and MBC information specific to each country and link to the regional hub and its databases.
- Advertise and disseminate strategically the regional compendium and other elements of national information on Corre-net.

Output 3.3 Portfolio of selected programmes and projects focusing on identification of best practices and lessons learned regarding the consolidation of protected areas and the sustainable management of natural resources.

Activities:

- Identify positive and negative experiences related to protected areas, buffer zone management and the sustainable use of natural resources.
- Identify positive and negative experiences with agroforestry systems, including their direct and indirect effects on biodiversity conservation, drawing from existing reviews on the subject (e.g., CATIE-IFPRI-WB-UNDP: *Costs, Benefits and Farmer Adoption of Agroforestry: Project Experience in Central America and the Caribbean*, 1995).

- Identify and systematize successful experiences in water management and energy development and direct or indirect effects on biodiversity conservation.
- Identify and summarize lessons learned and extract implications for programming in favor of MBC consolidation.
- Incorporate material into Corre-net.

Output 3.4 Portfolio of information products related to protection of biodiversity, sustainable use of natural resources, and opportunities for ecological restoration (including thematic maps, satellite images, catalogues of biodiversity, etc.).

Activities:

- Formulate an Information Strategy, including a diagnosis of regional and national facilities to develop technical products for information dissemination.
- Design dissemination products based on the systematized and collected information on databases and reports of the MBC at the national/regional level (publication of maps, satellite images, reports about regional biodiversity, etc.).
- Produce dissemination material regarding economic, social and environmental values of the MBC, including the creation of a *Biodiversity/Environmental Atlas of Mesoamerica*.
- Develop, update and publish a *Report on the State of Biodiversity in Mesoamerica*.

Output 3.5 Educational “tool kit” for different users aimed at facilitating practical activities related to the Corridor: fire control, construction of interpretive trails, integration of biodiversity elements into agricultural systems, etc.

Activities:

- Identify potential users, analyze demand for prospective tools, and undertake an initial identification of the contents of the tool kit.
- Design the set of “tools”, including their structure.
- Develop each “tool” of the box (see annex of subcontracts and consultation).
- Integrate into Corre-net (web page and email) and disseminate to key institutions and stakeholder groups related to the consolidation of the MBC.

Output 3.6 Enhanced connectivity of key regional groups and stakeholders.

Activities:

- Promote connectivity to Corre-net and the Mesoamerican Biodiversity Information Network, by members of the CCAD, CCAP and other regional stakeholders.
- Identify strategic partners requiring technical support and training about the Internet and how to access information in Corre-net and the national centers for biodiversity information.
- Where necessary, provide key equipment to regional stakeholder groups and institutions, or, where possible, identify extra-budgetary funding for purchase of equipment for key stakeholder groups.
- Provide technical training to regional stakeholder groups in the use of electronic information and communication systems.

Output 3.7 Standard criteria and indicators to quantify trends and status of protected areas and the state of biodiversity in general in the Mesoamerican Biological Corridor.

Activities

- Preliminary identification and design of the system of criteria and indicators, including ecological and socio-economic dimensions.

- Hold national and regional consultations regarding criteria and indicators to be used.
- Identification of priority areas and sites for monitoring and characterization of some individual corridors with the support of local and national initiatives.
- Test the criteria and indicators on a pilot basis.
- Evaluate and assess the efficiency of criteria and indicators, and suggest improvements for wider application.

Output 3.8 Introduction and use of technologically advanced and economically appropriate tools, such as satellite imaging and GIS databases to collect and analyze monitoring information.

Activities:

- Design and install a regional Geographic Information System of the MBC at ROCU.
- Establish collaborative agreements with NOAA, NASA and similarly sponsored remote sensing initiatives to monitor changes in the use of the land within the MBC.
- Review existing databases with the aim of reviewing and updating vegetation, ecoregion, and waterbody maps in Mesoamerica.
- Prepare maps and other related graphics identifying MBC-friendly production systems within the Corridor.
- Operationalization of a regional program to detect land-use changes (expansion of the agrarian frontier).
- Provision of information to early warning programmes for fires, floods and other threats in the Mesoamerican region.
- Introduction of important information on threats (mining and oil licenses, regional road projects, development of tourist complexes, construction of megahydroelectric plants, expansion of the agrarian and livestock frontier, etc.) and changes in land-use in the MBC in Corre-net.

Output 3.9 Decentralized monitoring mechanisms to involve local populations in participatory monitoring of the areas they know and live in areas of the MBC.

Activities:

- Identify critical areas of the MBC where local communities can play an important role in monitoring land-use changes and other criteria identified by the project's monitoring strategy.
- Approach select number of communities and organizations in these critical areas.
- Undertake a participatory analysis of monitoring objectives and needs.
- Analyze with communities criteria and indicators for stakeholder monitoring.
- Formulate agreements for community monitoring of the MBC.
- Establish reporting, dissemination and communication channels.
- Pilot application of the analytical and participatory monitoring system in some pilot areas (strategic and border basins).

IMMEDIATE OBJECTIVE 4: CAPACITY BUILDING AND INTRA-REGIONAL EXCHANGES

226. Successful consolidation of the MBC will depend on the ability of its stakeholders to effectively adopt, replicate and sustain policies and practices consistent with conservation and sustainable use principles and the region's decentralization and devolution policies. As such, under this component the project will develop a capacity building sub-programme aimed at the principal regional stakeholder groups such as the Central American Federation of Municipalities (FEMICA), Indigenous Council of Central America (CICA), Association of Central American Peasant Organizations for Cooperation and Development (ASOCODE), Committee of Mesoamerican Members of IUCN (COMIUCN), Federation of

Private Sector Entities of Central America and Panama (FEDEPRICAP), the Central American Councils on Forests and Protected Areas (CCAB and CCAP), etc. Priority will be given to groups with broad coverage, representation, credibility and the willingness to train their constituents.

227. The capacity building sub-programme will identify best practices in agroforestry systems and alternative production practices for buffer zones and biological corridors (including eco-labelling), sustainable uses of species and ecosystems, co-management of protected areas, participatory analytical and decision making processes, conflict resolution, marketing of non-timber forest products, recovery and application of traditional knowledge, and other topics to be determined on the basis of demand and consistency with the Strategic Action Plans. Rather than targeting stakeholders directly at the local level, this sub-programme will complement existing national or regional initiatives by adopting a training-of-trainers strategy aimed at building the capacities of the regional stakeholder groups who, in turn, will be responsible for the training of their constituents.

228. In parallel, the sub-programme will organize a series of intraregional exchanges among stakeholder groups with the aim of sharing their experiences regarding methods, practices, and technologies related to conservation and sustainable uses of biodiversity in the context of the Strategic Action Plan. For example, farmers familiar with a specific agroforestry system used in biological corridors in one area of the MBC will host farmers from another area to exchange views regarding issues related to productivity, marketing, labor requirements, etc. Another example might be that technical staff from a relevant institution in one area of the MBC would meet community stakeholders in another to exchange views regarding co-management of local protected areas.

229. The capacity building sub-programme will also target the formal educational sector with the aim of incorporating biodiversity and sustainable use themes and issues into existing curricula at different levels. SISCA and the Ministries of Education will be invited to work with UNEP in this activity.

Output 4.1 Short to medium-term strategy and plan for training of trainers.

Activities:

- With expert and regional stakeholder groups, develop MBC education priorities, strategy (short- and medium-term) and plan, with resource requirements and phasing.
- Based on selection of potential trainers by stakeholder groups, undertake training-of-trainers on basic conservation and sustainable use principles, pedagogical methods, regional environmental agreements and policy frameworks, etc.

Output 4.2 Mesoamerican Biological Corridor training network.

Activities:

- Based on analysis of stakeholder demand, identify and prioritize specific topics to be addressed within regional stakeholder groups, e.g., biodiversity friendly agroforestry systems; ecotourism development; co-management of protected areas; economic valuation of ecosystem goods and services; regional/municipal planning for conservation and sustainable use, etc.
- Identify training providers and centres of expertise in the region and internationally with expertise in the identified priority topics and assess capacities and costs related to technical training in specific fields.
- Negotiate agreements with selected regional institutions or centres for training of trainers.
- On the basis of subcontracts, effect training of trainers and monitor application of knowledge and skills acquired.
- Monitor and evaluate training-of-trainers programme.

- Promote associations and MOUs between regional universities, institutions and networks with each other and with extra-regional universities and institutions to form aMBC training network.
- Establish MBC training network.

Output 4.3 Material on best practices (methodologies, practices, tools, experiences, etc.) in conservation and sustainable use of natural resources and biodiversity and alternative production systems consistent with the buffer zones and interconnections (biological corridors).

Activities:

- Develop teaching material for trainers regarding management of agroforestry systems - including coffee, cocoa, or shade-grown cardamom - organic agriculture, or examples of best practices in use of gallery forests and harvesting of non-timber forest products.
- Develop teaching material regarding best practices for land and resource use.
- Develop teaching material regarding biodiversity conservation and co-management of protected areas and buffer zones.
- Translate, where needed, teaching material into indigenous languages for printed, visual and aural materials.

Output 4.4 Roster of regional experts in conservation and development fields.

Activities:

- Identify experts residing in the Mesoamerican region in MBC-related fields e.g., protected areas planning, valuation of ecosystem goods and services, conflict resolution, sustainable uses of biodiversity, etc.
- Define criteria to maintain basic standard and quality of the roster.
- Develop a roster of experts by field.
- Include roster and information on Corre-net.

Output 4.5 Short- and medium-term strategy and plan for regional counterpart exchanges, e.g., between farmers, technicians, administrators, etc.

Activities:

- With regional stakeholder groups, develop an exchange strategy for the entire region including identification of principle issues to be addressed, efficient logistical operations and management, products to be generated, documentation, monitoring and evaluation procedures.
- Elaborate and monitor biannual plans of regional exchanges

Output 4.6 Series of regional exchanges to improve knowledge of stakeholder groups regarding counterpart experiences in the region.

Activities:

- Develop counterpart exchanges for congressmen and municipal officials.
- Develop counterpart exchanges for agrarian producers.
- Develop counterpart exchanges for forestry officials and forest producers.
- Develop counterpart exchanges for protected areas officials.
- Develop exchanges for indigenous leaders.

Output 4.7 Report enumerating and describing lessons learned from the sub-programme of regional exchanges.

Activities:

- Systematize regional exchanges.
- Evaluate regional exchanges and sub-programme.
- Evaluate adoption of best practices based on participation in exchanges.

Output 4.8 Consensus-based proposals for most efficient way to include teaching material about the MBC in formal education programs.**Activities:**

- With participation from relevant experts and national and regional authorities from education, agriculture, natural resources and environment ministries, establish a Task Force whose goal is the incorporation of biodiversity material into school curricula.
- Review education programs from primary and secondary schools in the eight countries.
- Prepare a draft proposal to modify education programmes.
- Undertake extensive consultations and elicit comments on the proposal.
- Prepare final proposals for modification of education programs to include concepts and examples of the MBC.

Output 4.9 Teaching material for courses to be included in primary and secondary school programmes.**Activities:**

- Develop teaching guides, aids and other material regarding biodiversity, protected areas, sustainable uses, and the MBC.
- In consultation with Ministries of Education and textbook publishers incorporate biodiversity issues and themes into current texts.
- Identify funding needs and potential public and private sponsors to offset expenses of preparation and publication of materials, aids, guides and texts.
- Incorporate educational material, as appropriate, into Corre-net.

Output 4.10 Training of primary and secondary teachers in biodiversity and MBC-related concepts and issues.**Activities:**

- Identification of training needs and opportunities in current institutions for teacher development.
- Production of material to be used in teacher development institutions and curricula.
- Training of teachers in biodiversity and MBC-related issues.
- Establishment of Ministerial Forum on Education and the MBC.

IMMEDIATE OBJECTIVE 5: PARTICIPATION, PUBLIC AWARENESS AND EXPANSION

230. The successful consolidation and long-term sustainability of the MBC will depend on popular support for its objectives at regional, national and local levels; in the context of profound rural poverty and pressing national needs for economic development, it is imperative that the MBC initiative be seen as a regional effort to achieve a biodiversity-friendly landscape where conservation and economic development are integrated rather than an initiative to exclusively preserve biodiversity in protected areas. Under this component, the project will a) establish a sub-programme aimed at raising the awareness of the general public and the principal stakeholder groups regarding the scope, objectives and potential benefits of the MBC to sustainable development, and b) establish or strengthen mechanisms for stakeholder participation at the national and regional levels in the planning and monitoring of the Programme's objectives and activities.

Output 5.1 A regional awareness raising strategy designed to reach different sectors and interest groups over the short-, medium- and long-terms.

Activities:

- With stakeholder representatives, undertake participatory design of the regional awareness raising strategy, including implementation and resource requirements.

Output 5.2 Workshops for mass media representatives regarding achievements, objectives and benefits of the MBC for biodiversity conservation and sustainable development.

Activities:

- Develop a roster of media personalities, journalists and organizations at the regional level involved in the public dissemination of information related to sustainable development.
- Organize and implement six regional workshops with experts in written press, publishing houses, radio and television in Mesoamerica to inform about the objectives and achievements of the MBC and to promote media attention to the MBC.
- Develop mailing or contact list for dissemination of MBC project reports.
- Undertake in-depth training of the members of the Central American Environmental Journalists Network in biodiversity and MBC-related issues, especially through participation in regional exchanges and other project-related events.
- With relevant indigenous and campesino stakeholders, develop a regional sub-strategy for the Central American Radio Network to allow it to effectively disseminate information regarding MBC issues with focus on utilization of indigenous languages, as appropriate, and biodiversity friendly production systems and techniques.

Output 5.3 Series of products adapted to different audiences, for diffusion by the mass media through regional and international broadcasting to be complementary to national MBC-related media initiatives.

Activities:

- Identify potential private or public sector sponsors to cost-share media campaign.
- Identify key themes or messages to be broadcast.
- Develop a regional sub-strategy for production and dissemination of MBC material on public and private TV channels, including sponsorship by the private sector.
- Design and produce eight 5-minute programs about the Mesoamerican Biological Corridor for regional (Spanish) and international (English) broadcasting.
- Develop six 30-second "jingles" about the MBC for at least 5 countries of the region.

Output 5.4 National multisectoral MBC Commissions to establish and/or confirm regional and national MBC priorities and to act as official national counterparts to the regional Programme for the Consolidation of the Mesoamerican Biological Corridor.

Activities:

- Develop a minimum set of criteria for the establishment of national commissions or MBC support groups.
- Develop draft Terms of Reference of the national MBC commissions, especially in reference to their interactions with the regional Programme.
- Foster the establishment of national MBC commissions.
- Ensure communications channels through Corre-net.
- Schedule and prepare regional meetings with Commission representatives to ensure coordination of Programme activities, with special emphasis on the development of Strategic Plans.

Output 5.5 Systematic stakeholder participation in regional Programme issues related to biodiversity, natural resources and the environment with the aim of reaching consensus regarding regional priorities.

Activities:

- Schedule, prepare and implement a systematic series of meetings with regional organizations of civil society (CICA, CICAFOC, ASOCODE, etc.) to ensure communication, flow of information, participation in planning, implementation and monitoring of MBC-related activities, etc.

Output 5.6 Operational Regional Forum on Mesoamerican Biodiversity to encourage open debate on different perspectives and priorities, and build consensus on Programme priorities and objectives.

Activities:

- Develop and implement a permanent Regional Forum on Mesoamerican Biodiversity using electronic media and Corre-net, with annual stakeholder conferences in different countries. The Forum will contain scientific/academic presentations, an advocacy section, a section on private sector opportunities, a section on indigenous experience, etc.
- Implement annual or biannual Mesoamerican Presidents Meetings on the consolidation of the MBC.
- Implement four multi-ministerial meetings to discuss sustainable development challenges and opportunities in priority areas of the MBC.
- Establish specific bi- or trinational forums regarding management of shared ecosystems including mountains, forests and water bodies of importance to the MBC.

Output 5.7 Thematic multisectoral, working groups at the regional level for analysis of key issues critical to the long-term consolidation and sustainability of the MBC (e.g., trade in non-timber products; ecotourism development, valuation of ecosystem services, ecological restoration, etc.) and corresponding reports.

Activities:

- With representatives of key regional stakeholder groups, identify strategic MBC themes for further discussion and analysis.
- Form multisectoral thematic working groups.
- Analyze and discuss key issues and produce regional reports for presentation to the Regional Forum.
- Organize a special thematic group to discuss and provide recommendations regarding regional follow-up to the Convention on Biological Diversity and its application to the MBC.
- Organize a special thematic group to discuss and provide recommendations regarding regional follow-up to the UN Convention on Climate Change and its application to the MBC.
- Organize a special thematic group to discuss and provide recommendations on in-situ conservation of biodiversity within the Convention on Wetlands of International Importance (Ramsar).
- Organize a special thematic group to discuss and provide recommendations on biodiversity conservation opportunities within free-trade negotiations in Mesoamerica.
- Design, prepare, publish and disseminate a report on *The State of Mesoamerican Biodiversity and the status of the MBC*.
- Integrate various findings and recommendations into Corre-net.

IMMEDIATE OBJECTIVE 6: POLICY HARMONIZATION

231. Consolidation of MBC will inevitably require harmonization of sectoral policies and incentive/regulatory frameworks. Since sectoral policy directly affects productivity and economic development no single country should feel at a disadvantage from reforming policy aimed at achieving

global benefits. Consequently, the emphasis placed on policy harmonization is warranted not only from an ecosystem management perspective but also from a socio-economic and political standpoint. Activities under this component will feed the ongoing, established regional policy formulation and integration process by identifying the key issues and sectoral activities affecting biodiversity conservation and sustainable use, as well as providing viable recommendations for policy reforms and adoptions by SICA.

Output 6.1 Comparative analyses and systematization of issues and key actions identified by the CCAD, the CCAB-AP and MBC National Commissions affecting conservation and sustainable use common to MBC countries, as well as recommendations to address them.

Activities:

- Analyze regional priorities for updating policies related to the establishment of the MBC.
- Develop proposals on policies and legislation related to Protected Areas and Indigenous Peoples in the MBC.
- Develop a policy formulation program on territorial planning access to land and the MBC.
- Develop a proposal for a regional policy on Clean Production Systems as they affect biodiversity.
- Develop other policies, as appropriate, based on analyses and recommendations of thematic multisectoral and other groups.
- Integrate findings into Corre-net.

Output 6.2 Reviews of existing resource-related legislation, commissioned by the regional coordinating group with recommendations for sectoral policy reform.

Activities:

- Undertake participatory development of the protocols to the regional Central American Conventions on wildlife and biodiversity.
- Organize regional exchanges of expertise, parliamentarians, and other key stakeholders on development of national laws for conservation of biodiversity, including threatened species of flora and fauna.
- Organize regional exchanges of expertise; parliamentarians, policy makers and other key stakeholders regarding the development of national laws to ensure the operation of environmental services in geographic and thematic priority areas of the MBC.

Output 6.3 Participatory proposals to standardize the criteria, legal frameworks and incentives for the conservation and sustainable use of biodiversity in Mesoamerica.

Activities:

- Define criteria and draft proposals for policies to develop Forest Certification for biodiversity conservation in the region.
- Define criteria and draft proposals for enabling legislation and implementation of biological corridors at the local level.
- Define criteria for and draft proposals for regional policies on Efficiency and Effectiveness Assessments in Protected Areas Management.
- Develop other criteria and proposals for policies, as a result of other project or non-project activities.
- Integrate this information into Corre-net.

Output 6.4 Participatory analysis of policy proposals, reviews and recommendations with the corresponding Ministries, the CCAB-AP, MBC National Commissions, and stakeholder groups at the regional level.

Activities:

- Establish permanent communication between CCAD, SICA and regional stakeholder groups and institutes to discuss policies for natural resources and environment.
- Design and implement workshops with selected stakeholder representatives and institutions to discuss policies for natural resources and environment.
- Design and implement workshops with private sector representatives regarding regional economic development and the MBC.
- Design and implement regional workshops for analysis of policies with CICAD lawmakers.
- Design and implement workshops with other stakeholder groups, as opportunities arise.

Output 6.5 High level policy review workshops and regional meetings for the analysis of proposals, reviews and recommendations.

Activities:

- Organize international meetings regarding the MBC (donors, foundations, international NGOs, multilateral secretariats, etc.)
- Develop bi- or trilateral meetings to increase the effectiveness of the planning and management of shared watersheds, as well as crossborder biological corridors.
- Design and develop meetings with religious leaders at a regional level to promote biodiversity conservation.
- Organize workshops to assess options and policies regarding regional position in international forums (Summits, etc.) related to the conservation of biodiversity.

Output 6.6 Enhanced application of biodiversity-relevant law and incentives in each country of the region.

Activities:

- Develop information centers on biodiversity legislation and incentives with strong links to the CCAD, CICAD, judicial entities, and Central American private organizations related to this issue.
- Undertake widespread dissemination of Mesoamerican Environmental Legislation related to the MBC.
- Provide technical assistance for the correct application of biodiversity-related law and incentives in Mesoamerica (codes, procuraduria, defensorias).
- Undertake training of enforcement personnel on application processes of environmental law in Mesoamerica (procedural law).
- Integrate Mesoamerican legislation and information about incentives into Corre-net.

Costa Rica Government	114,830
<i>Equipment</i>	
Costa Rica Government	8,000
<i>Vehicles</i>	
Costa Rica Government	53,000
<i>Facilities</i>	
Costa Rica Government	12,000
<i>Funding</i>	
Costa Rica Government	140,000
SUBTOTAL COSTA RICA	327,830
EL SALVADOR	
<i>Personnel</i>	
El Salvador Government	250,000
<i>Equipment and Machinery</i>	
El Salvador Government	24,000
<i>Material and Supplies</i>	
El Salvador Government	120,000
<i>Miscellaneous</i>	
El Salvador Government	27,000
SUBTOTAL EL SALVADOR	421,000
GUATEMALA	
<i>Personnel</i>	
Guatemala Government	200,000
Municipal Governments	100,000
<i>Other services</i>	
Guatemala Government	100,000
<i>Material and Supplies</i>	
Guatemala Government	100,000
<i>Miscellaneous</i>	
Conservationist NGOs	40,000
SUBTOTAL GUATEMALA	421,000
HONDURAS	
<i>Personnel</i>	
Honduras Government	188,160
Other institutes and organizations	57,280
<i>Equipment</i>	
Honduras Government	43,200
<i>Miscellaneous</i>	
Honduras Government	43,920
SUBTOTAL HONDURAS	332,560
MEXICO	
<i>Personnel</i>	
Mexico Government	791,703
<i>Operations</i>	
Mexico Government	112,500
<i>Miscellaneous</i>	
Mexico Government	201,250
SUBTOTAL MEXICO	1,105,453
NICARAGUA	
<i>Personnel</i>	
Nicaragua Government	201,000

Central American University	108,000
<i>Miscellaneous</i>	
Nicaragua Government	43,600
Central American University	28,000
SUBTOTAL NICARAGUA	380,600
PANAMA	
<i>Personnel</i>	
Panama Government	82,410
<i>Equipment</i>	
Panama Government	72,700
<i>Facilities</i>	
Panama Government	52,700
<i>Miscellaneous</i>	
Panama Government	47,740
SUBTOTAL PANAMA	255,550
TOTAL COUNTERPART CONTRIBUTIONS	4,072,024

E.2 UNDP/UNEP/GEF INPUTS

234. UNDP/UNEP/GEF resources will cover inputs necessary for planning, implementing, managing and monitoring activities both at the regional and national level. A detailed budget listing the various inputs is provided in Section J, page 61.

E.3 GTZ INPUTS

235. The GTZ regional project in support of the Biological Corridor will provide salary equivalent to 36 months of an expert located at the CCAD Executive Secretary. GTZ will also provide five technical experts (at the same salary) to be located in Panama, Costa Rica, Nicaragua, Honduras and Guatemala. The estimated amount for permanent staff is US\$624,000 over three years (January 1999 to December 2001). Additionally, GTZ will provide short-term experts for a total of \$245,000 during the first three-year phase of the Project.

236. GTZ will also provide up to US\$120,000 for administrative and vehicle expenses and US\$280,000 for seminars, meetings, courses and workshops during the 36 months of support. GTZ will assist in acquiring communications equipment and vehicles for a total of \$100,000.

237. Finally, GTZ will provide the equivalent of 18 months of an international expert - on a part-time basis - to act as a link between the CCAD/UNDP/UNEP Project on the one hand and GTZ and its multiple projects on technical and financial assistance in Central America on the other. Total counterpart contribution from GTZ is estimated at US\$ 1.7 million.

E.4 DANIDA INPUTS

238. Danida has agreed to provide US\$ 6.0 million to three specific areas associated with the project: (i) promotion of farmer and indigenous participation in the planning and management of MBC consolidation, especially those communities or groups living in protected areas or in prospective corridor or "interareas" (US\$ 3.4 million); (ii) local level sustainable development demonstration projects i.e., principally projects aimed at generating income to offset those activities deemed detrimental to biodiversity and consolidation of the MBC (US\$ 1.8 million); and (iii) analysis and strengthening of the role of women in MBC consolidation (US\$ 0.4 million). Activities in these three areas will be defined and mainstreamed into the production of specific project outputs as described under Section D, above, based

on a participatory methodology involving these stakeholder groups. Programming of these activities will occur as part of the process of strategic planning and as part of those outputs involving regional exchanges and capacity building, participation and awareness raising, and monitoring.

F. RISKS

239. This will be an innovative and complex project, involving eight countries. The success of the project will depend on many factors, the majority of which can be addressed through the adequate formulation and management of the *Programme*. Those outside the project's control are outlined in the Project Planning Matrix (see Annex 3) and discussed below. Project design has been done in such a way that the risks associated with project components are of insufficiently high probability to consider aborting the MBC Programme initiative. It is, however, critical to monitor and assess their potential influence and impacts during the course of implementation, as part of the project's overall monitoring strategy (see below).

240. Among the foremost assumptions for project success is continued government support, at both national and regional levels, for the development of the MBC system. Presently, the establishment of the MBC constitutes a formal regional priority, which to become an institutional and programmatic reality will require policy and decision making at the national and local levels which faithfully reflect MBC objectives. The Programme will be designed to foment and sustain government and stakeholder support to the MBC by demonstrating the economic benefits of this strategic approach in terms of more sustainable production of ecosystem goods and services, the attraction of both internal and external financial support to conservation and development initiatives in the MBC through a coordinated approach, and the development of economic instruments aimed at generating resources to offset the costs of ecosystem protection and to ensure equitable distribution of the benefits associated with biodiversity conservation.

241. As such, a threat to the consolidation of the MBC would be a public perception that the Corridor is only about conservation of protected areas. It will be fundamentally important, for the sustainability of the initiative, to make the public (particularly in critical Corridor areas) aware that the MBC system aims at striking a balance between protecting and using biological resources sustainably for economic development. Governments, media, and peasant and indigenous associations will all need to play a disseminating role regarding the advantages of an operational Corridor system. In addition, there is a need for the National MBC Commissions to be perceived as representative, transparent, credible and neutral (i.e., not dominated by any one sector).

242. It is expected that internal and external financial assistance to the MBC will be attracted by the benefits of supporting an innovative, high-visibility, impact-oriented initiative designed to: produce quantifiable and measurable outputs; eliminate duplication of efforts through periodic gap analyses and reporting; identify successful initiatives and best practices based on monitoring of conservation and development activities in the MBC for further support; and assist governments and stakeholders to produce well-designed proposals for financial support.

243. An additional assumption relates to the role and functions of CCAD within the Central American Integration System (SICA), which until now has channeled substantial government and donor interest towards the Corridor. In the context of restructuring SICA, CCAD will assume a more prominent role - converting to an Environment Secretariat - thereby corroborating the project's assumption in regard to long-term institutional stability for environmental governance. While transitional adjustments could potentially affect the pace of project implementation, adaptive measures will be factored into annual operational workplans.

244. After examining the Project Documents of the national level MBC projects, it can be inferred that there are no probable or imminent risks at the national level that may drastically threaten the overall implementation of this regional project. Indeed, the programme will be designed to support national initiatives and minimize the risks to MBC consolidation at the national level. However, attention must be paid to potential issues which could appear in each country such as policy changes in the productive sectors affecting biodiversity, the effect of economic, fiscal and credit policies on MBC consolidation; the effect of public budgetary reductions as a result of adjustment programs, with priority then given to payment of internal and external debts over programs to protect natural capital and the development of sustainable uses of biodiversity.

G. PRIOR OBLIGATIONS AND PREREQUISITES

245. This Project document establishes CCAD-SICA's and the counterpart Governments' actions to be undertaken at the start-up of the Project and during its implementation. The main prior obligation identified is to provide the technical and administrative personnel and the physical space required at the level of each country to host national-regional links. UNDP and UNEP will sign the Project document and will provide assistance only if the prior obligations mentioned above have been complied with to their satisfaction.

246. One of the most important prerequisites is that once the Project Document has been signed by the parties, UNDP – on a no-objections basis by CCAD - will appoint the Regional Coordinator who will need the approval of its constituent members in each country. These agencies will appoint the national-regional links in support of National Coordinators of the MBC. The CCAD-SICA Executive Secretary, after signing the Project Document, will proceed to initiate actions before Central American Governments to establish transparent processes of selection of candidates for the implementation of Project subcontracts at the national and regional levels.

247. UNDP and UNEP will sign the Project Document and will provide their assistance subject to the compliance or probable compliance with the prerequisites mentioned before. If one or more of the prerequisites are not complied with, UNDP and UNEP may, at their discretion, suspend or end their assistance.

248. The project *Establishment of a Programme for the Consolidation of the Mesoamerican Biological Corridor* has been formally endorsed by the Governments of Mexico and the seven Central American Countries, together with CCAD as the official intergovernmental environmental Agency for the region. (See Annex 1 for Presidential Resolution).

249. The project has been reviewed and approved in Project Brief format by the GEF Council of 4-6 November 1997.

H. PROJECT REVIEW, REPORTING AND EVALUATIONS

250. Implementation of this regional project will be complex. This complexity will be partially managed by the drafting and approving of annual operational plans and periodic technical backstopping missions and reports.

251. As well, the project will be subject to annual tripartite review involving the CCAD President or a person that he (she) may appoint and one representative each from UNDP, UNEP and the World Bank. The first meeting will take place within the first twelve months after the start of full implementation of the Project.

252. The Project Steering Committee, with the support of the Technical Advisory Team, will prepare a Project Performance Evaluation Report (PPER) and submit it to the Tripartite Review parties one month before the tripartite meetings. The PSC will prepare a final report subject to the final tripartite review at least two months in advance to the estimated date for the meeting so the parties involved may review it. During implementation of the Project, the parties may request other technical and progress reports, if necessary and appropriate.

253. The Project shall also be subject to two external evaluations financed with project resources. The terms, timing and duration of the evaluation will be decided between the parties and according to UNDP-GEF evaluation procedures.

254. The Project will also be subject to periodic monitoring by UNDP/UNEP through missions established for that purpose. The terms of reference, timing and duration will be agreed between UNDP/UNEP and the Project Steering Committee (see Annex 5 and 6).

255. The Regional Operations Coordinating Unit (ROCU) will be duly appointed by CCAD to be the principal implementation agent for the Project. Project execution i.e., financial and administrative management of project funding, will be under the formal responsibility of the CCAD, as supported and supervised by the relevant UNDP Country Office. Standard terms and accounting and auditing procedures established by the United Nations as well as financial reports procedures will be observed. At the end of each year, the project shall be subject to an audit, according to UNDP regulations, of which the expenses shall be covered by UNDP/UNEP at the regional level.

256. The project's Monitoring and Evaluation arrangements encompass the collection, analysis, and dissemination of data and information on issues related to implementation progress and impact assessment. Monitoring the progress of project implementation will be carried out internally and permanently by ROCU, and evaluation of implementation and impact of the project will take place in the middle, at the end and after completion of the project, as commissioned by the Steering Committee. Implementation of each Strategic Action Plan will be monitored and evaluated at the middle and end of each plan's timespan.

257. Based on its monitoring and evaluation activities, the project will be able to capture and share "lessons learned". This will assist project management to systematically assess the timely and qualitative fulfillment of workplan objectives and to take corrective measures, as appropriate. M&E findings will be fed back directly into decision making and enhancement of project quality, as well as to ongoing and forthcoming GEF initiatives; lessons learned will be compiled, published and disseminated to raise public awareness of the **Programme's** activities and substantiate its credibility.

258. Baseline data and permanently updated data are crucial in order to measure progress of project implementation and to assess impact. The project will identify objectively verifiable implementation and impact indicators, including the means and sources of verification. Emphasis will be placed on collecting and systematizing data already available from various sources in order to avoid the costly collection of primary data.

259. Current UNDP project monitoring and reporting strategies (Tripartite Project Review [TPR], Program Performance Evaluation Reports [PPER], Mid Term- and Final Review) will be applied and complemented by GEF M&E procedures such as the annual Project Implementation Review (PIR) and independent project and portfolio evaluations.

I. LEGAL CONTEXT

260. This Project document shall be the instrument referred to as such under Article 1 of the Standard Basic Assistance Agreement between the Governments of Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, and Panama and the United Nations Development Programme.

261. However, the executing agencies shall be, for the purpose of this Agreement, the Central American Commission on Environment and Development (CCAD) and the executing agencies from each host country mentioned under section B.8.

262. The Project Document can be subject to revision with the signature of UNPD/UNEP Regional Representatives, provided the representative is assured that the other signatories of the Project Document have no objections to the changes proposed.

263. The following are the type of revisions allowed:

- Revisions in, or addition of, any of the annexes of the Project Document.
- Revisions which do not involve significant changes in the immediate objectives, outputs or activities of the Project, but are caused by the rearrangement of inputs already agreed to or by cost increases due to inflation.
- Mandatory annual revisions that rephrase the delivery of agreed project inputs or increased expert or other costs due to inflation or that take into account agency expenditure flexibility.

264. The Governments accept to contract, at ROCU's headquarters or in country under this project, the personnel required for the implementation of this Project according to UNDP policies and rules established by the United Nations System for that purpose. These services are additional to the general human resources provided by the Governments and they will be available during UNDP/UNEP participation in the Project.

J. BUDGETS

(1) UNDP-GEF Budget Contribution (in US\$)

The following describes the various inputs being financed through UNDP-GEF resources. Also indicated is an estimate of each budget line and the grand total that will go towards activities implemented in the various participating countries and those that will cover inputs required by the Regional Operations Coordinating Unit (ROCU) for regional oversight in terms of planning, implementing and monitoring project activities and outcomes.

Code		Total	Regional share	National share	1999	2000	2001	2002	2003	2004
10	International personnel									
11.01	ROCU Coordinator	351,000	100%	0%	58,500	58,500	58,500	58,500	58,500	58,500
11.02	Information & Monitoring Expert	156,000	100%	0%	26,000	26,000	26,000	26,000	26,000	26,000
11.03	Policy Expert	234,000	100%	0%	39,000	39,000	39,000	39,000	39,000	39,000
11.04	Communications Expert	234,000	100%	0%	39,000	39,000	39,000	39,000	39,000	39,000
11.05	Consultants (95 p/m)	930,000	0%	100%	280,000	200,000	180,000	120,000	80,000	70,000
11.06	General Services	115,200	25%	75%	19,200	19,200	19,200	19,200	19,200	19,200
11.99	Subtotal	2,020,200								
15	Travel									
15.1	National travel	187,200	0%	100%	31,200	31,200	31,200	31,200	31,200	31,200
15.11	Regional travel	218,400	100%	0%	36,400	36,400	36,400	36,400	36,400	36,400
16	Mission Costs	60,000	34%	66%	10,000	10,000	10,000	10,000	10,000	10,000
16.1	Evaluations	120,000	0%	100%	0	0	60,000	0	0	60,000
	Subtotal	585,600								
17	National Personnel									
17.01	Regional Liaison Officers (3)	585,000	0%	100%	97,500	97,500	97,500	97,500	97,500	97,500
17.02	Administrator	171,600	100%	0%	28,600	28,600	28,600	28,600	28,600	28,600
17.03	Secretary	85,800	100%	0%	14,300	14,300	14,300	14,300	14,300	14,300
17.04	Admin. Assistant	70,200	100%	0%	11,700	11,700	11,700	11,700	11,700	11,700
17.05	Messenger-Porter	23,400	100%	0%	3,900	3,900	3,900	3,900	3,900	3,900
17.99	Subtotal	936,000								
19	Component total	3,541,800								

Code		Total	Regional share	National sha	1999	2000	2001	2002	2003	200
20	Subcontracts	3,041,462	0%	100%	751,462	700,000	600,000	500,000	400,000	90,000
21	Subcontracts	3,041,462								
29	Component Total									
30	Training									
31	Scholarships	90,000	0%	100%	15,000	15,000	15,000	15,000	15,000	15,000
32	Visits, workshops, exchanges	2,340,000	0%	100%	390,000	390,000	390,000	390,000	390,000	390,000
33	In-Service Training	240,000	0%	100%	40,000	40,000	40,000	40,000	40,000	40,000
39	Component Total	2,670,000								
40	Equipment									
41	Fungible equip.	36,000	20%	80%	6,000	6,000	6,000	6,000	6,000	6,000
42	Non-fungible Equip.									
42.01	Office equip. (9)	121,000	20%	80%	100,000	21,000	0	0	0	0
42.02	Vehicles (9)	180,000	20%	80%	180,000	0	0	0	0	0
45.72	Operations/Maintenance	216,000	20%	80%	36,000	36,000	36,000	36,000	36,000	36,000
45.73	Rents/renovations	144,000	20%	80%	24,000	24,000	24,000	24,000	24,000	24,000
49	Component Total	697,000								
50	Miscellaneous									
53	Sundries	341,000	20%	80%	56,835	56,833	56,833	56,833	56,833	56,833
54.01	Project support services	308,738	6%	94%	51,456	51,456	51,456	51,456	51,456	51,456
	Total w/o support services	10,291,262								
99	Grand total	10,600,000	17%	83%						

(2) GTZ Budget Contribution (in US\$)

The following describes the various inputs being financed through GTZ resources. Also indicated is an estimate of each budget line and the grand total that will go towards activities implemented in the various participating countries and those that will cover inputs required for regional oversight in terms of planning, implementing and monitoring project activities and outcomes. The grand total of US\$ 1,716,800 does not include the services of a CTA and his/her expenses.

Code		Total	Regional share	National share	1999	2000	2001
10	International personnel						
11.07	Biodiversity specialist	117,000	100%	0%	39,000	39,000	39,000
11.08	Short-term experts	217,000	0%	100%	72,334	72,333	72,333
11.99	Subtotal	334,000					
15	Travel						
15.12	Natl. Travel	93,600	0%	100%	31,200	31,200	31,200
15.13	Reg. Travel	109,200	100%	0%	36,400	36,400	36,400
16.1	Evaluations	28,000	0%	100%			28,000
17	National personnel						
17.01	Regional Liaisons (5)	487,500	0%	100%	162,500	162,500	162,500
17.02	Secretary	19,500	0%	100%	6,500	6,500	6,500
19	Component total	1,071,800					
30	Training						
31	Visits, workshops, exchanges	280,000	0%	100%	95,000	95,000	90,000
32	In service training	110,000	0%	100%	66,000	22,000	22,000
39	Component total	390,000					
40	Equipment						
41	Fung.Equip.	45,000	0%	100%	15,000	15,000	15,000
42	Non-Fung.Equip.	25,000	0%	100%	25,000	0	0
42.01	Vehicles	30,000	0%	100%	30,000	0	0
49	Component total	100,000					
	GTZ Admin. Cost	155,000	0%	100%			
99	Grand total	1,716,800	13%	87%			

K. ANNEXES

- Annex 1: Presidential Resolution**
- Annex 2: Incremental Cost Analysis**
- Annex 3: Project Planning Matrix**
- Annex 4: Lessons Learned during PDF B Implementation**
- Annex 5: Monitoring and Evaluation Plan**
- Annex 6: Schedule for Review, Reporting and Evaluation of Project Activities**
- Annex 7: Training Strategy**
- Annex 8: Equipment Needs of the Project**
- Annex 9: Preliminary Description of Subcontracts**
- Annex 10: Terms of Reference for Project Personnel**
- Annex 11: Terms of Reference for Decision-making Bodies**
- Annex 12: List of Key Contacts**
- Annex 13: Project Work Plan**
- Annex 14: Ongoing and Planned GEF and non-GEF Biodiversity Conservation Initiatives in the Region**

Annex 14:	Organ and Planned O
Annex 13:	Project Work Plan
Annex 12:	List of Key Contacts
Annex 11:	Terms of Reference for
Annex 10:	Terms of Reference for Project Personnel
Annex 9:	Preliminary Description of Consultants
Annex 8:	Equipment Needs of the
Annex 7:	Training Strategy
Annex 6:	Schedule for Review Reporting
Annex 5:	Monitoring and Evaluation Plan
Annex 4:	Lessons Learned during PDP B-1
Annex 3:	Project Planning Matrix
Annex 2:	Incremental Cost Analysis
Annex 1:	Initial Re

4

ANNEX 1

RESOLUTIONS ADOPTED AT THE XIX SUMMIT OF CENTRAL AMERICAN PRESIDENTS

The Presidents of Central America adopted the following resolutions relating to the Mesoamerican Biological Corridor Concept⁴, Commitments and General Directions, at its XIX Presidential Summit in Panama City on July 11 and 12, 1997

CONSIDERING:

That the Central American region contains 7% of the world's biodiversity on 0.4% of the planet's land area.

That the Alliance for Sustainable Development (ALIDES), includes in its principles respect for life in all its forms and the use of the earth's vitality and diversity in a sustainable manner, as well as a specific mandate for the establishment of the Biological Corridor in the region.

That Central America has established through great effort and a lengthy process, a group of protected areas to guarantee the vital ecological processes and based on the potential, which has increased the coverage of the Central American System for Protected Natural Areas (SICAP) from 3.5% (1969) to 18.5% (1997) of the region's territory. That to guarantee conservation and sustainable use of biological diversity, as the basis for the region's development, it is important to consolidate these areas in different management categories, core areas, multiple-use areas, buffer zones and the promotion of biological corridors.

That the settlement of populations in critical areas, poverty levels and the poor use of natural resources are affecting the productive base that contributes to the development of the region.

That conservation of natural resources is a basic and strategic element for the maintenance of sustainable production and as such, for the social and economic development of the region.

That conservation of biological diversity is a strategy in which all sectors of society should participate: governmental and non-governmental organizations, the private sector, organized communities and ethnic groups, and always looking for a greater participation of women in all groups.

That this initiative frames the regulation of the environmental commitments of the Central American Alliance for Sustainable Development (ALIDES, 1994), the Central American Biodiversity Agreement (CCAP 1992), the Biodiversity Agreement (Rio 1992) and commitments on these issue made by the region in the Hemispheric Summits (Miami, Bolivia), and underlining the importance of the establishment in the region of a Mesoamerican Biological Corridor, so that:

WE RESOLVE

1. To perceive the Mesoamerican Biological Corridor as a system for organizing the territory into natural areas under special management, core zones, buffer zones, multiple-use zones and areas of interconnection, organized and consolidated to provide a group of environmental goods and services

⁴ Mesoamerican Biological Corridor grows out of the Central American Biodiversity Agreement and to the environmental commitments of ALIDES. The Mesoamerican Biological Corridor grows out of the Tuxtla I and II Agreements and includes the five southern Mexico states of: Quintana Roo, Campeche, Chiapas, Tabasco and Yucatán.

to Central American and world society, providing opportunities for social agreement to promote investment in conservation and sustainable use of natural resources, all with the end of improving the quality of life for the region's inhabitants.

2. To promote the establishment of the Mesoamerican Biological Corridor through the Central American System of Protected Areas (SICAP), its buffer zones, multiple-use and interconnected zones such as conservation areas, sustainable use of natural resources and productive restoration of the landscape; all integrated, planned and implemented through the entities which compose it, government, local authorities, base organizations, the private sector and the Central American community in general.
3. To state the political will to comply with the strategies here defined:
 - a) Align sector policies to make them conservation and development compatible, including corresponding legal frameworks.
 - b) Strengthen regional and national institutions in conservation and sustainable use of natural resources.
 - c) Prioritize and direct the financing, incentive use and other economic instruments towards restoration, conservation and sustainable use of biodiversity components.
 - d) Promote dissemination of information on the Mesoamerican Biological Corridor to increase participation of all sectors.
 - e) Support efforts to improve the territorial organization, including the judicial security of protected areas, buffer zones and connecting corridors.
 - f) Further new models of management for protected areas (co-management, private management, decentralization and others).
 - g) Increase communication and joint work between countries to improve efficiency in management of protected border areas.
 - h) Promote the development of training in natural resource use and support for participatory research programs.
 - i) Create and strengthen financing mechanisms for protected areas support and sustainable use of natural resources; promote the economic value of ecosystems, as well as the consciousness of the benefits derived from goods and services that they provide.
 - j) Promote the development of joint implementation of programs and projects with external cooperation for the benefit of the Central American and international community.
 - k) Promote projects to disseminate and raise awareness on the biodiversity values in the region, to exchange relevant experiences at the regional level and to educate the general population to have greater levels of participation in the Mesoamerican Biological Corridor and everything related to environmental, social and economic benefits through conservation and sustainable use of biodiversity.
 - l) Provide incentives and promote the incorporation of wetlands, coral reefs and coastal marine zones in the initiatives of the Mesoamerican Biological Corridor.

4. Recognize that the Mesoamerican Biological Corridor is a reference framework and an instrument to prioritize and focus other initiatives and projects in the economic development field through the management of protected zones, buffer zones and connections.

ANNEX 2

INCREMENTAL COST ANALYSIS

Broad Development Goals

1. Policy makers in Central America have recognised that in order for development to be sustained, effective measures are needed to protect the region's natural capital base. Central America is especially rich in biological diversity, which supports the region's primary resource dependent economies by mediating the flow of ecological goods and services. For both economic and moral reasons, the protection of biological diversity has been accorded a high priority in the region.
2. Despite the importance accorded to conservation in Government Policies and Development Plans, wildlands throughout the region continue to be lost. Ecosystems, many of which transcend national borders, are becoming increasingly fragmented and isolated. Many of the threats facing biodiversity stem from resource use patterns in neighbouring countries, reducing the efficacy of conservation actions at the individual country level. And at a regional level, many life zones are insufficiently represented in the Protected Area system. Clearly, regional co-operation in the conservation front will be important if Protected Areas are to serve their intended function as repositories of biological diversity.
3. The region's leaders have recognized this fact, and in recent years, have taken a number of concrete steps to facilitate such co-operation (paralleling efforts to better integrate their economies). These efforts date back to 1989, with the creation of the Central American Commission on Environment and Development (CCAD). The Commission was charged first and foremost with co-ordinating regional environmental programmes, and in particular, supporting the integration of country-level environmental initiatives. Creation of the CCAD was followed by the negotiation of the Central American Convention for the Conservation of Biodiversity and Protection of Priority Protected Areas, signed in 1992, which made provision for establishment of a Central American System of Protected Areas (SICAP). In 1994, the Alliance for Sustainable Development (ALIDES) was developed to guide countries in their endeavours to achieve sustainable development objectives. One of the roles of ALIDES is to ensure the integration of conservation objectives into economic and sectoral planning. As part of ALIDES, the region's governments are directed "to protect and conserve biodiversity of all species of plants, animals, other organisms, of genetic populations within species and the variety of ecosystems." As such, ALIDES specifically advocates the creation of a regional *biological corridor* to strengthen the respective national systems of protected areas."
4. Finally, in 1996, regional Environmental and Natural Resource Ministries approved the concept of the Mesoamerican Biological Corridor (MBC) initiative. In essence, this is a region-wide land-use planning system comprising existing Protected Areas, adjoining buffers, and corridor areas. This project aims at supporting existing and proposed efforts to establish the Corridor, and has been accorded a high priority status by the region's governments. The MBC initiative was officially endorsed by the Presidents of the region in their XIX Summit Meeting of July 1997.

Global Environmental Objective

5. The Central American Region is especially rich in flora and fauna, lying in a species-mixing zone between North and South America. A great number of habitats are represented, including tropical moist forests, montane forests, dry forest and savannahs, important wetlands, mangroves and the world's second largest barrier reef system. The final species tally for the Mesoamerican isthmus is conjectural. However, the region's known endowment of biological diversity includes some 70,000 species of higher plants, 1,800

species of mammals, 5,800 of birds, and 2,700 of reptiles and amphibians⁵. Scientists estimate that the region, covering only 1.8% of the world's land mass, may harbour as much as 8% of the world's biodiversity.

6. The threats facing biodiversity in Mesoamerica are amongst the greatest in the Americas. The problem of habitat fragmentation is especially severe, and, if left unchecked, is likely to lead to unmitigated species extinctions. Indeed for many species, and especially large fauna, it is already probably too late because remaining habitats are of insufficient size to meet their long-term survival requirements. For most species, however, the risk of extinction may be lessened through the establishment of interconnecting corridors between Protected Habitats. The conservation impact of many small reserves is less than that of an integrated system. Biologically, the key need is to maintain the exchange of genetic material between populations of species. In many such areas, it is too late to protect original habitats, and the challenge is to transform resource-use practices in modified landscapes to ensure their compatibility with conservation objectives. This may be achieved by conserving forest patches, protecting keystone species such as fig trees, developing conservation compatible farming systems and so on. In other areas, potential may exist for habitat restoration.

7. It is quite clear that if efforts to establish biological corridors are to bear fruit, they will need to be co-ordinated at the regional level. With ecosystems crossing national boundaries, a holistic, ecosystem approach to conservation necessitates regional co-operation. The Central American countries have already taken steps to facilitate such co-operation, and in promulgating and endorsing the concept of the Mesoamerican Biological Corridor, have demonstrated great foresight and an extraordinary sensitivity to real conservation needs. However, as demonstrated in the analysis of the baseline situation, a number of factors hamper realisation of the corridor concept. Without assistance from the GEF, these problems would not be addressed—jeopardising the entire Corridor initiative. The future welfare costs to the global community of such an outcome are likely to be high in terms of foregone direct and indirect use opportunities, the erosion and loss of ecosystem functions, and depletion of existence values.

8. Given the tight budget constraints faced by Central American countries and limited availability of donor moneys, a clear need is to improve the cost-effectiveness of conservation programs. The co-ordination of conservation measures and pooling of technical expertise and information at a regional level would serve to reduce duplication of effort, ensure programmatic continuity, reduce the learning costs associated with new conservation endeavours, and enable scale economies to be achieved in training and information management. The benefit is that scarce conservation moneys, including those provided by donor agencies, will, in future, be better targeted. Moreover, the pooling of information, sharing of experiences and co-ordination of management will improve the efficacy and sustainability of future conservation interventions.

Baseline

9. Biodiversity conservation initiatives in Central America have hitherto centred on the establishment and management of Protected Areas. Some 461 protected areas have been declared in the region, covering an area of over 18 million hectares. 31% of the territory of Belize receives some kind of protection, followed by Guatemala with 27%, Costa Rica and Panama with 24% and Honduras, Nicaragua, Mexico and El Salvador with approximately 2%. In addition to State managed Protected Areas, Costa Rica in particular has established an extensive network of parks on private land, an approach that shows great promise and that may be emulated elsewhere in the region.

⁵ This data include Mexico and are taken from WRI, UNEP, UNDP, World Bank. 1996. *World Resources 1996-97*. Oxford University Press.

10. Some of these Protected Areas are admirably managed, but others remain paper parks, lacking Management and Operational Plans, field personnel and basic infrastructure and equipment. In addition, based on the Theory of Island Bio-geography, several Protected Areas are too small to serve as viable ecological units in the long-term. Habitat degradation in the periphery of many Protected Areas, means increasingly, that they are becoming islands in modified landscapes. This threatens the survival of many species of flora and fauna that the Parks were established to protect.

11. Proximate threats to Mesoamerican biodiversity include agricultural land-use conversion, poaching, timber extraction (including illicit harvesting within Protected Areas), cattle ranching, mining, colonisation along roads, and hydropower development. These threats have complex antecedents, including economic, political, social, demographic and institutional factors that vary greatly from country to country. With the notable exception of Belize, forest loss has been acute throughout the region.

12. At the present time, there is a lack of integration of land use management between countries, and conservation efforts at an individual country level are often hampered by counter-conservation land uses in neighbouring countries. The ecological viability of many Protected Areas in border regions hinges to a large extent on what becomes of contiguous ecosystems across borders. The MBC is critical in that it would enable integrated land-use strategies to be developed and applied throughout the region in ecologically sensitive areas, especially in Protected Area buffers. In addition, a co-ordinated approach to conservation planning and management is necessary to ensure that adequate protection is accorded to habitats used by migratory species, including flyways for birds.

13. The baseline level of regional co-operation in the conservation sphere (i.e. without GEF intervention) is considerable—though not geared to establishing the Biological Corridor. At a broader level the CCAD has provided support for the development of regional Environmental Protocols including for biodiversity conservation and forest management. It actively mobilises financial and technical resources for environmental projects and ensures that environmental issues are addressed at the highest political level in the region, namely the biannual Presidential Summits. Following a decision at the XIX Presidential Summit, the CCAD will be elevated to an Environment Secretariat and will expand its sphere of influence from primarily biodiversity related issues to hydrological resources and watershed management, and sanitation and energy sector development. The broadening of the scope of CCAD activities will occur independent of the proposed GEF intervention. The CCAD's work has been augmented by a number of regional projects, including the following initiatives.

Strengthening of the Legal System. The *Strengthening of Legal Systems* project is providing judges, legal advisers and other government officials with training in sustainable resource use principles. Capacity support is being provided to a number of environmental NGOs to improve their ability to act as legal advocates to serve conservation interests. The project is sponsoring a study of the feasibility of standardising environmental legislation in the region. A second project, *Establishment of a Network of Environmental Law Organisations*, is, amongst other things, supporting the establishment of a regional network of organisations specialising in environmental law (RODA) and compiling/ standardising laws for the protection of marine turtles in Costa Rica, Panama and Nicaragua. While recognising the important foundation established by these initiatives, their cost is not included in the baseline as both these activities will be completed before the commencement of the proposed project.

Agricultural and Forest Resource Management. The *Agricultural Frontier* project is improving communications and information exchange on environmentally sustainable agricultural practices, including the results of pilot projects. Two other projects, the *Regional Forest Programme in Central*

America (PROCAFOR⁶) and Support for the Management of Natural Forests of Central America (PAGEBOCA) are providing capacity support to institutions and local groups responsible for forest resource management, as well as undertaking demonstration projects. The former project is focused on supporting sustainable forestry endeavours at the community level, providing technical assistance to improve management methods, and developing agro-forestry schemes. The latter initiative is developing national and regional networking capacities to facilitate the communication of local groups seeking to improve forest management.

Conservation and Environmental Management. The *Regional Environment Project (PROARCA)* is concentrating on developing systems of management for the conservation and sustainable use of coastal ecosystems. In addition, the project is providing limited capacity support to national agencies responsible for Protected Area management to strengthen planning mechanisms. Finally, the *Strengthening of Environmental Management in Central America* project is developing mechanisms to abet consultation on a regional level between public and private sector agencies.

Participatory Planning for Sustainable Development. The CIDA-funded regional project *Support to ALIDES Plan of Action* aims at promoting sustainable development by supporting the implementation of ALIDES' environmental objectives. The main areas of work include strengthening the National Councils for Sustainable Development, implementing the regional environmental agenda, and the incorporation of environmental issues into the other thematic areas of ALIDES. To this effect, the main underlying premise consists of promoting dialogue and joint planning between the private and public sectors.

Regional capacity building. As part of the expanding co-operation programme between CCAD and SIDA, the regional project *Strengthening of Environmental Management in Central America for Implementation of ALIDES* is oriented toward strengthening CCAD's analytical, managerial and administrative capacities to co-ordinate the region's fulfilment of its ALIDES environmental commitments. In addition, the project seeks the decentralisation of the processes of design and implementation of such actions, fomenting the participation of national governments and local communities.

Conservation of the Coastal Ecosystems of the Gulf of Fonseca. This trinational project among El Salvador, Honduras and Nicaragua was formulated to ensure the sound management of the Gulf's natural resources. It is financed by DANIDA and executed by IUCN.

14. The many national and regional conservation initiatives being implemented in Central America, despite their wide scope, in themselves are insufficient to operationalise the Mesoamerican Biological Corridor. Additional efforts are needed to enable Central American countries to lead, manage and co-ordinate the MBC initiative. The factors that hamper implementation of the initiative may, in broad terms, be summarised as follows.

Capacity for overall co-ordination and strategic planning. Although political agreement among Central American countries to establish the MBC exists, an agreed Programme with corresponding Strategic Action Plans have yet to be developed. In order to provide strategic direction that is responsive to changing circumstances at the local, national, regional and global levels there is need for a group dedicated to establishing and implementing the MBC initiative. This is critical to securing the medium and long term objectives. A related issue is that a co-ordinated system for tracking disparate corridor-related conservation programmes and pilot sites is currently lacking. If national and regional initiatives are to be effectively co-ordinated and a pro-active conservation management regime adopted, a regional body responsible for consolidating these efforts is necessary.

⁶ This project will end before the start of the proposed project and hence the cost of this initiative is not part of the baseline.

Resource mobilisation. Funding for protected area establishment and management on a country level has been secured from national budgets, bilateral, multilateral and private donors, and, in some countries, innovative financing deals such as debt for nature swaps and, more recently, carbon offset schemes. However, these moneys are clearly insufficient to attain conservation on the scale required to arrest threats and to protect habitats and species in the long-term. In order to implement the MBC and manage it on a regional level, additional funds will need to be raised. Capacity for fund raising varies substantially from country to country, and there is tremendous scope to learn from the experiences of those countries in the region that have been successful at fund raising, including in mobilising moneys from private sources. A mechanism for transferring skills and experiences within the region is presently lacking.

Information and Monitoring. A major problem is that there is little consistency in the data sets on biodiversity, land use, and conservation/ natural resource management used by individual countries. Even where data does exist, it may be difficult to access. While some of the above-mentioned projects include components to strengthen networking capacity and data management systems, successful development of the Corridor will require that additional measures be undertaken. An integrated regional information system concentrating specifically on biodiversity conservation and the needs of the MBC is, for instance, lacking. Such a system is sorely needed to store key data, provide an up-to-date register of national data sets, provide basic information on national-level conservation programs and effectively guide the allocation of resources through ongoing gap identification.

Participation, awareness and outreach. The experience with engendering stakeholder participation in conservation initiatives varies greatly within and between countries in the region. Countries participating in the establishment of the Corridor have recognised that community involvement at both the design and implementation stages will be critical. However, public awareness of the MBC is scant and a campaign to inform the public of the initiative, its special significance, and the need for regional collaboration to implement it will be needed. Mechanisms to ensure effective public participation and discussion regarding planning, administration and management need also to be developed, as such participation will be critical to the success of the initiative. While such mechanisms may exist at a site level in some countries, their efficacy and potential for replication will need to be evaluated.

Policy harmonisation. Despite existing efforts, national conservation policies and planning systems will need to be further harmonised if regional land-use strategies are to be effected. Institutional arrangements for managing the corridor have yet to be clarified. Finally, an adequate legal framework for managing the Corridor is lacking.

Capacity. Institutional and technical capacities to effect conservation and manage natural resource systems on a sustainable basis vary greatly from country to country and institution to institution. Obviously for the MBC to be effective, regional and country level capacities as a whole will need to be enhanced. Currently lacking, is a mechanism to transfer knowledge within the region from those countries that are relatively capacity-rich, to those that are relatively capacity-poor. Establishment of such a mechanism is hampered because capacity-rich countries lack the financial wherewithal to provide technical assistance and training. Finally, the capacity of regional institutions (including the CCAD and its technical councils) to co-ordinate and support implementation of the MBC will need strengthening.

15. In the baseline situation, the above-mentioned problems would not be addressed, seriously hampering the task of translating the Biological Corridor from theory into practice. All essential capacity at the regional level to implement and sustain the initiative will be missing. Habitat degradation and fragmentation would continue apace, and despite the laudable policy pronouncements made by Central American governments, there would be little integration of the region's conservation programs.

GEF Alternative

16. The alternative strategy promoted under this project will address the constraints, outlined in the Baseline section, to the effective establishment, implementation and long-term operation of the Mesoamerican Biodiversity Corridor system. The objective is to create a conducive institutional, policy, regulatory and economic environment for the MBC. The following measures are proposed (listed by project component):

Programme co-ordination and strategic planning. The project will establish a regional group charged with co-ordinating and giving strategic direction to the consolidation of the MBC. The group will be provided with the basic operational infrastructure as well as training that will empower the Central Americans to lead and continue this effort. Along with monitoring and resource mobilisation, one of the primary responsibilities of the group will be to develop three strategic action plans (each covering a period of 3 to 4 years) prioritising actions necessary to achieve medium and long term goals.

Resource mobilisation for corridor consolidation. The transformation of strategic vision into action will require new and innovative sources of financing and technical support at key junctures. This component will concentrate on providing the requisite training to the newly established co-ordination group, the Environment Secretariat, counterpart government agencies, National Commissions of the MBC, and officers from CCAD, CCAP-AB. Training will relate to developing proposals for obtaining financing - based on identified priorities in the Strategic Action Plans - and the identification, development, and application of economic instruments (taxes, user fees, preferential credits) as a way of generating financial resources. Another important aspect of this component will be to maintain a livedata base of relevant initiatives, and donors of financial and technical resources in order to avoid duplication and promote co-operation.

Information and monitoring system. The project will support the establishment of CORRE-NET; an information system for the Corridor initiative. As a first step, a survey of existing data bases and systems of management will be undertaken, and the quality of data evaluated. Recommendations for improving management methods will be provided. The system will maintain a registry of regional databases on biodiversity, biological resources and regional and national level conservation initiatives, and will itself serve as a storehouse of information on the Corridor, including on participating institutions. The system will incorporate and expand on information available or to become available from the stock-taking assessments conducted as part of national Enabling Activities initiatives.

As part of efforts to monitor progress, the project will identify and collate information on the Corridor, including land use maps, aerial photographs, biodiversity inventories and so on, plus collect lessons learned material (for national level conservation initiatives)—for eventual storage in the information system. Finally, a "How To" kit will be developed as a source of information to end-users on conservation methods (i.e. fire control, participatory resource management etc.) Collectively, these interventions will provide for more effective conservation planning and management, by ensuring that decision-makers are better informed.

Capacity building and intra-regional exchanges. In order to address capacity gaps, the project will sponsor training programs for conservation professionals, resource planners and regional stakeholder groups in a number of disciplines. Some of the groups that will receive this training include CCAD and its technical councils, CICAFOC, ASOCODE, FEMICA, FEDEPRICAP, and CONADIBIOs. This component will also foster the exchange of practitioners within the region to promote an exchange of experience and lessons between countries of the region.

Participation, public awareness and outreach. The project will support an awareness and outreach campaign to sensitise the public in the region to the objectives, costs and benefits of the MBC, plus the implications of the initiative for key stakeholders (particularly local communities). Activities will include media outreach, the formulation of promotional materials, and the direct targeting of important stakeholders.

Mechanisms to enable stakeholder participation in the design, implementation and monitoring of the initiative will be developed and implemented.

Policy harmonisation. A key focus under this component will be the integration of the initiative into National Conservation Strategies and Action Plans. Existing sectoral policies and incentive and regulatory frameworks will need to be harmonised so that no single country takes on an inordinate share of the burden in meeting global environmental objectives. Gaps in existing regional efforts for harmonising environmental regulations will be addressed. This will involve, among other things, a review of natural resource related legislation with recommendations for sectoral policy reform and proposals for standardised incentive and regulatory frameworks.

Scope of Analysis

17. The scope of analysis for the estimation of incremental costs comprises the range of interventions required to enable Central American countries to guide and manage, with public support and participation, the MBC initiative. Included in the assessment are efforts aimed at strengthening information systems, planning, co-ordinating and monitoring capacities, regulatory frameworks, participatory resource management endeavours and finally, agricultural and forestry programmes and sustainable use initiatives. However, only those efforts aimed at improving regional co-operation in the area of biodiversity conservation are assessed. Further, regional programmes focusing more broadly on environmental management are included in the analysis insofar as they relate to biodiversity conservation.

18. Several initiatives aimed at strengthening regional capacities for environmental management have already been undertaken, or have been approved for future implementation. While these efforts are critical, by themselves they are insufficient to remove the host of institutional and capacity related problems that hamper execution of the Corridor initiative. However, they provide a foundation for implementation of this project. For the purposes of estimating the baseline, those initiatives that would occur during the lifetime of the GEF project (1998-2005⁷) have been costed. Those initiatives that will have been concluded prior to commencement of implementation of the GEF project are treated as sunk costs and omitted from the incremental cost analysis. However, the substantial contributions of these efforts in providing a foundation for the Corridor should be recognised and they are discussed in the Baseline section above.

19. Project activities are complementary to and build on existing regional efforts to protect biodiversity and establish the MBC. The project will generate both domestic and global benefits. Domestic benefits will however accrue over the longer-term, and will be diffused amongst a plethora of stakeholders. Substantial co-financing has been leveraged from DANIDA and GTZ and the region's governments in lieu of these benefits.

Incremental Costs

20. The Baseline has been costed at USD 12.9 million. The cost of the alternative strategy amounts to USD 36.1 million, of which 36% constitutes the baseline. The costs of incremental activities proposed under the Alternative amount to USD 23.2 million, of which USD 10.6 million or 46% will be met by the GEF, USD 8.6 million by DANIDA and GTZ, and USD 4.0 million in in-kind resources by national governments. These costs are summarised in the Incremental Cost matrix presented overleaf.

⁷ A duration of 8 years for project implementation was chosen to allow enough time for regional capacity to be built, and so guarantee a sound basis for self-sufficiency and sustainability of the MBC initiative.

Incremental Cost Matrix:

Cost/ Benefit	Baseline (B)	Alternative (A)	Increment (A-B)
Domestic Benefits	<ul style="list-style-type: none"> ♦ Economic values of biodiversity threatened by lack of long-term viability of Protected Areas as ecological units. ♦ Lack of harmonisation of national conservation policies and field management programmes at regional level. ♦ Limited capacity for fund-raising in some Central American countries. ♦ Limited information sharing on sustainable resource use paradigms. 	<ul style="list-style-type: none"> ♦ Creation of biological corridors improves ecological viability of protected areas. ♦ Region-wide harmonisation of conservation policies and regulations under the auspices of the Strategic Master Plan for the MBC. ♦ Sharing of information on successful approaches to fund raising, sources of funds, with training. ♦ Sharing of technical and financial information on possible sustainable resource use options, with training. 	<ul style="list-style-type: none"> ♦ Risk of species extinctions lessened—thus protecting economic values derived from biological resources and ecosystems. ♦ Improved efficacy of conservation programmes and more effective employment of scarce domestic resources for resources. ♦ Improved future financial security for conservation programmes. ♦ Improved prospects for achieving sustainable development objectives.
Global Benefits	<ul style="list-style-type: none"> ♦ Limited implementation of MBC initiative—leading to unchecked habitat fragmentation and species loss. ♦ Central American countries focused on achieving national development priorities, imposing environmental externalities on neighbouring countries. ♦ Lack of regional database, and inadequate mechanisms for data sharing between countries hampering regional conservation planning efforts. ♦ Strategic Action Plans for MBC 	<ul style="list-style-type: none"> ♦ Translation of initiative from concept to practice. ♦ Better integration of regional conservation concerns into economic and land-use planning and management. ♦ Establishment of data base for Corridor initiative, with electronic links to national data bases ♦ Gearing of national policies (within coherent planning framework) towards establishment of MBC. ♦ Improved stakeholder awareness of need for regional co-operation in conservation endeavours and development of participatory mechanisms for MBC. 	<ul style="list-style-type: none"> ♦ Improved prospects for long-term species survival – protecting global economic values derived from existence of Mesoamerican biodiversity. ♦ Improved management of ecologically sensitive areas—particularly in border regions. ♦ Conservation planning foundations strengthened in region with more informed decision-making. ♦ Less duplication and more co-ordination of conservation efforts in Central America. ♦ Increased public support for the

Cost/ Benefit	Baseline (B)	Alternative (A)	Increment (A-B)
	<p>lacking and national conservation policies not harmonised.</p> <ul style="list-style-type: none"> ♦ Mechanisms for stakeholder participation in designing, implementing and monitoring the MBC initiative not defined. ♦ Insufficient institutional and technical capacity at the national and regional level to establish, administer and sustain the MBC initiative. • Resource use practices in ecologically modified landscapes unfriendly to biodiversity. 	<ul style="list-style-type: none"> ♦ Strengthening of institutional capacities to manage the MBC, training of conservation professionals and fund raising support. ♦ Piloting of appropriate resource use models, and sharing of information between countries. 	<p>Corridor improves the chances of its success and bolsters political commitment.</p> <ul style="list-style-type: none"> ♦ Enhanced self-sufficiency of initiative. ♦ Increased options for conservation-compatible uses of modified landscapes.
Costs MBC programme co-ordination and strategic planning.	USD 6.05m	USD 11.55m	<p>GEF: USD 2.20m Cofinancing: USD 2.70m Govt. in-kind: USD 0.60m Total: USD 5.50m</p>
Costs Resource mobilisation.	Nil	USD 3.50m	<p>GEF: USD 1.30m Cofinancing: USD 1.50m Govt. in-kind: 0.70m Total: USD 3.50m</p>
Costs Information, and Monitoring.	USD 1.05m	USD 6.10m	<p>GEF: USD 2.50m Cofinancing: USD 1.80m Govt. in-kind: 0.75m Total: USD 5.05m</p>
Costs Capacity building and intra-regional exchanges.	USD 0.3m	USD 4.25m	<p>GEF: USD 1.90m Co-financing: USD 1.20m Govt. in-kind: 0.85m Total: USD 3.95m</p>
Costs Participation and Awareness raising.	USD 0.1m	USD 2.7m	<p>GEF: USD 1.20m Cofinancing: USD 0.80m</p>

Cost/ Benefit	Baseline (B)	Alternative (A)	Increment (A-B)
			Govt. in-kind: 0.60m Total: USD 2.60m
Costs Policy Harmonisation.	USD 0.4m	USD 3.00m	GEF: USD 1.5m Cofinancing: USD 0.60m Govt. in-kind: 0.50m Total: USD 2.60m
Cost Totals	Total (baseline) USD 7.9m	Total (alternative) USD 31.1m	Incremental Costs to be funded by GEF: USD 10.6m Co-financing: USD 8.6m (Danida/GTZ) Govt. in-kind: USD 4.0m Total: USD 23.20m

Notes:

Sunk costs (expenditures prior to 1998) have been omitted from the analysis. Total expenditures on regional environmental programmes amounted to USD 1.04 million in the period between January 1992 and December 1997.

ANNEX 3

PROJECT PLANNING MATRIX

Project Strategy	Objectively Verifiable Indicators	Means of Verification	Assumptions/Risks
<u>Development Goal</u> Functional MBC system as a regional planning framework for the conservation and sustainable use of biodiversity			
<u>Project Purpose</u> As a result of the establishment and operationalization of a Programme for the Consolidation of the Mesoamerican Biological Corridor, regional and national institutions and stakeholders are able to plan, coordinate, manage, and monitor land use for integrated conservation and sustainable use of biodiversity with the goal of achieving a regional network of protected areas, buffer zones and biological corridors.	<ul style="list-style-type: none"> Formulation and implementation of Strategic Action Plans reflect increasing skills and capacities to plan, manage and monitor priority activities Planning and information tools are being utilized by national and regional stakeholders Resources are being mobilized to meet identified priority needs Regional stakeholder groups participate actively in the activities and decision making of National MBC Commissions, thematic working groups and the Mesoamerican Biodiversity Forum Policies, incentive and regulatory frameworks have been harmonized at the regional level to generate financing for consolidation and maintenance of the MBC system and to ensure biodiversity friendly land-use systems within the MBC. 	<ul style="list-style-type: none"> Assessment of Strategic Action Plans Analysis of types and quantities of information accessed, consulted and incorporated into land-use planning and sectoral development Amount of resources mobilized or committed Analysis of stakeholder participation and survey of satisfaction with mechanisms and Programme Analysis of legal publications documenting harmonized policies, incentive and regulatory frameworks 	<ul style="list-style-type: none"> Governments and stakeholder groups continue assigning priority status to MBC based on perception of the benefits to be derived from integrated conservation and sustainable use of biodiversity Internal and external resources continue to be mobilized and effectively allocated to MBC priorities

Project Strategy	Objectively Verifiable Indicators	Means of Verification	Assumptions/Risks
Component 1: Program Coordination and Strategic Planning	<ul style="list-style-type: none"> • ROCU and National Commissions are fully staffed and functional by the end of year one. 	<ul style="list-style-type: none"> • Monitoring of staff composition and organization. • Periodic review of Strategic Plans and planning processes. 	<ul style="list-style-type: none"> • Individuals at ROCU and National Commissions effectively perform their roles and responsibilities; • Government and stakeholder groups continue to support ROCU and the National Commissions; • Continued availability of in-kind contributions for programme operations;
Component 2: Resource mobilization for the consolidation of the MBC.	<ul style="list-style-type: none"> • Pipeline of proposals responding to identified needs for the Consolidation of the MBC available by end of year three. • Adoption and harmonization of proposed policies, instruments, and mechanism for long-term financing MBC (throughout). 	<ul style="list-style-type: none"> • Proposals registered in database at ROCU and presented to prospected donors. • Publication of legal reforms in official documents. 	<ul style="list-style-type: none"> • Means and capacities provided are effectively used by stakeholder groups to identify needs/gaps and the technical and financial resources to address them; • Government and decision-makers adopt and harmonize policies, instruments and mechanisms for long-term financing of MBC; • External funding sources continue to support MBC objectives;

Project Strategy	Objectively Verifiable Indicators	Means of Verification	Assumptions/Risks
Component 3: Information and monitoring	<ul style="list-style-type: none"> • Web site established with links to relevant databases/ web sites in place by the end of year two. • 90% of regional stakeholder groups are effectively connected and capable of using corre-net by end of year five • All regional Stakeholder groups receive MBC quarterly Reports (throughout) • Monitoring methodologies and plan are operational by end of year 2 	<ul style="list-style-type: none"> • Number of hits registered by Web site • Amount of information entered into Corre-net • Monitoring of stakeholder use of Corre-net • Monitoring of distribution list and utility of MBC Quarterly Reports to regional stakeholders • Amount, distribution, and quality of data and information provided from monitoring activities 	<ul style="list-style-type: none"> • Information system is effectively used by government and stakeholder groups to facilitate decision-making and planning. • Regional stakeholder groups will systematically input relevant information to the system and will effectively participate in monitoring.
Component 4: Capacity Building and intra-regional Exchanges	<ul style="list-style-type: none"> • By end of year 3 trainers from each major stakeholder group are conducting training activities for their respective constituencies based on most effective strategy within the context of priorities set out in Strategic Action Plan. • By end of year three, 20 stakeholder exchanges conducted to illustrate and disseminate best practices in the context of priorities identified in Strategic Action Plan. • By end of year four MBC specific modules are incorporated into curricula of relevant regional and national universities and technical institutes, high school and primary school systems. 	<ul style="list-style-type: none"> • On-site monitoring of training activities along with evaluation of trainee satisfaction and extent of training application. • On-site monitoring of exchanges together with evaluations of participant satisfaction and assessment of adoption of best practices. • Review of relevant curricula, teaching methods, and overall student awareness levels of MBC issues and objectives. 	<ul style="list-style-type: none"> • Regional stakeholders effectively utilize the skills, materials, and expertise made available to them to effectively implement the strategic action plan. • Education sector incorporates education materials and modules into school curricula.

Project Strategy	Objectively Verifiable Indicators	Means of Verification	Assumptions/Risks
Component 5: Participation, Public Awareness and Expansion	<ul style="list-style-type: none"> • By end of year two National Commissions are able to fulfil their analytical, planning, monitoring and awareness raising functions; • Multi stakeholder thematic working groups have formulated recommendations regarding priority regional issues for incorporation into Strategic Action Plans and regional Policy agenda (starting in year two and continuing throughout). • Articles, documentaries and reports on MBC are produced by media on an on-going basis. 	<ul style="list-style-type: none"> • Monitoring and stocktaking assessment of activities, meetings, and public hearings. • Strategic Actions Plans and regional policy agendas incorporate thematic working group recommendations. • Periodic monitoring of mass media along with compendium of MBC coverage. 	<ul style="list-style-type: none"> • Stakeholders take advantage of participation mechanisms and maintain an active and constructive involvement in analysis and decision-making regarding planning and implementation of MBC objectives. • Government and civil society groups are able to achieve consensus on issues pertaining to planning and implementation of MBC objectives. • Mass media will continue to effectively report on issues, progress and socio-economic and environmental benefits of the MBC.
Component 6: Policy Harmonization	<ul style="list-style-type: none"> • Adoption of recommendations for reform and/or development of regional policies and corresponding national policy incentives and regulatory frameworks. 	<ul style="list-style-type: none"> • Publication of reforms and official documents. 	<ul style="list-style-type: none"> • National governments through SICA adopt and effectively implement harmonized policies, incentives and regulatory frameworks.

	Outputs
Component 1: Program Coordination and Strategic Planning	<p>Output 1.1 Functional Regional Operations Coordinating Unit (ROCU) ascribed to the CCAD-ES as Executing Agency. ROCU will coordinate, plan, monitor and evaluate Programme establishment and implementation over the long term. It will respond to the regional organizations of SICA and relate directly to the Coordination of the MBC in each country, especially the National MBC Commissions.</p> <p>Output 1.2 High level Technical Advisory Group (TAG) to assist ROCU in the execution of its functions including the development and monitoring of subcontracts. TAG will be composed of international, regional and national experts either related to relevant natural resource institutions and conservation groups or with high-level expertise regarding knowledge, protection and sustainable use of biodiversity.</p> <p>Output 1.3 Consultative Group to provide ROCU with perspectives and advice from regional stakeholder groups. The CG will be composed of representatives of regional stakeholder groups, including farmers, indigenous peoples, NGOs, the private sector, and municipal authorities.</p> <p>Output 1.4 Steering Committee composed of one representative each from: the CCAD; CCAB-CCAP, the Technical Advisory Group; UNEP; UNDP; World Bank; the GTZ-MBC initiative; the Consultative Group; and ROCU Coordinator.</p> <p>Output 1.5 Consensus-based conflict resolution mechanisms.</p> <p>Output 1.6 Strategic Action Plans for the MBC – the first by the end of the first year (initial plan), the second by the end of the third year (stabilization plan), and the last by the end of the fifth year (sustainability plan), including elements for the strengthening of the CCAB-AP.</p> <p>Output 1.7 Regional strategies focusing on different conservation priorities and themes are identified and formulated in close consultation with regional stakeholder groups and within the framework provided by the Strategic Action Plans.</p>
Component 2: Resource mobilization for the consolidation of the MBC	<p>Output 2.1 Operational training-of-trainers program for ROCU, counterpart Government Agencies, National MBC Commissions, officers from the CCAD, CCAP-AB, and regional stakeholder groups on strategies for the mobilization of resources, criteria for the formulation of proposals, development and presentation of proposals.</p> <p>Output 2.2 Resource mobilization training material and guidelines developed and disseminated to stakeholder groups essential to establishment of the Corridor, including counterpart government agencies for the project, those organizations forming the National Commissions of the MBC, and other regional stakeholder groups.</p> <p>Output 2.3 Roster of local, regional and international experts accessible electronically for the design and formulation of project proposals and the development of economic instruments for MBC construction.</p> <p>Output 2.4 Database of cooperation projects and other MBC initiatives, including those supported with national and international funding.</p> <p>Output 2.5 Portfolio of potential economic instruments and financial mechanisms aimed at sustaining biodiversity conservation and sustainable use, as well as biodiversity friendly economic activities in buffer zones and corridors.</p>

	Outputs
	<p>Output 2.6 Series of multisectoral dialogues, debates and exchanges regarding the role of economic instruments in resource generation to sustain consolidation of the MBC, including modification of production systems and enhancement of conservation practices aimed at regional stakeholder groups and decision-makers.</p> <p>Output 2.7 Long-term plan for the mobilization of resources to support the construction of the MBC.</p>
Component 3: Information and Monitoring	<p>Output 3.1. Operational MBC information system (Corre-net) accessible through electronic networks (Internet).</p> <p>Output 3.2 Mesoamerican Biodiversity Information Network (REDBIO – Red de Información sobre Biodiversidad en Mesoamerica).</p> <p>Output 3.3 Portfolio of selected programmes and projects focusing on identification of best practices and lessons learned regarding the consolidation of protected areas and the sustainable management of natural resources.</p> <p>Output 3.4 Portfolio of information products related to protection of biodiversity, sustainable use of natural resources, and opportunities for ecological restoration (including thematic maps, satellite images, catalogues of biodiversity, etc.).</p> <p>Output 3.5 Educational “tool kit” for different users aimed at facilitating practical activities related to the Corridor: fire control, construction of interpretive trails, integration of biodiversity elements into agricultural systems, etc.</p> <p>Output 3.6 Enhanced connectivity of key regional groups and stakeholders.</p> <p>Output 3.7 Standard criteria and indicators to quantify trends and status of protected areas and the state of biodiversity in general in the Mesoamerican Biological Corridor.</p> <p>Output 3.8 Introduction and use of technologically advanced and economically appropriate tools, such as satellite imaging and GIS databases to collect and analyze monitoring information.</p> <p>Output 3.9 Decentralized monitoring mechanisms to involve local populations in participatory monitoring of the areas they know and live in areas of the MBC.</p>
Component 4: Capacity Building and intra-regional Exchanges	<p>Output 4.1 Short to medium-term strategy and plan for training of trainers.</p> <p>Output 4.2 Mesoamerican Biological Corridor training network.</p> <p>Output 4.3 Material on best practices (methodologies, practices, tools, experiences, etc.) in conservation and sustainable use of natural resources and biodiversity and alternative production systems consistent with the buffer zones and interconnections (biological corridors).</p> <p>Output 4.4 Roster of regional experts in conservation and development fields.</p> <p>Output 4.5 Short- and medium-term strategy and plan for regional counterpart exchanges, e.g., between farmers, technicians, administrators, etc.</p> <p>Output 4.6 Series of regional exchanges to improve knowledge of stakeholder groups regarding counterpart experiences in the region.</p> <p>Output 4.7 Report enumerating and describing lessons learned from the sub-programme of regional exchanges.</p> <p>Output 4.8 Consensus-based proposals for most efficient way to include teaching material about the MBC in formal education programs.</p>

Outputs	
	Output 4.9 Teaching material for courses to be included in primary and secondary school programmes.
	Output 4.10 Training of primary and secondary teachers in biodiversity and MBC-related concepts and issues.
Component 5: Participation, Public Awareness and Expansion	Output 5.1 A regional awareness raising strategy designed to reach different sectors and interest groups over the short-, medium- and long-terms.
	Output 5.2 Workshops for mass media representatives regarding achievements, objectives and benefits of the MBC for biodiversity conservation and sustainable development.
	Output 5.3 Series of products adapted to different audiences, for diffusion by the mass media through regional and international broadcasting and to be complementary to national MBC-related media initiatives.
	Output 5.4 National multisectoral MBC Commissions to establish and/or confirm regional and national MBC priorities and to act as official national counterparts to the regional Programme for the Consolidation of the Mesoamerican Biological Corridor.
	Output 5.5 Systematic stakeholder participation in regional Programme issues related to biodiversity, natural resources and the environment with the aim of reaching consensus regarding regional priorities.
	Output 5.6 Operational Regional Forum on Mesoamerican Biodiversity to encourage open debate on different perspectives and priorities, and build consensus on Programme priorities and objectives.
	Output 5.7 Thematic multisectoral, working groups at the regional level for analysis of key issues critical to the long-term consolidation and sustainability of the MBC (e.g., trade in non-timber products; ecotourism development, valuation of ecosystem services, ecological restoration, etc.) and corresponding reports.
Component 6: Policy Harmonization	Output 6.1 Comparative analyses and systematization of issues and key actions identified by the CCAD, the CCAB-AP and MBC National Commissions affecting conservation and sustainable use common to MBC countries, as well as recommendations to address them.
	Output 6.2 Reviews of existing resource-related legislation, commissioned by the regional coordinating group with recommendations for sectoral policy reform.
	Output 6.3 Participatory proposals to standardize the criteria, legal frameworks and incentives for the conservation and sustainable use of biodiversity in Mesoamerica.
	Output 6.4 Participatory analysis of policy proposals, reviews and recommendations with the corresponding Ministries, the CCAB-AP, MBC National Commissions, and stakeholder groups at the regional level.
	Output 6.5 High level policy review workshops and regional meetings for the analysis of proposals, reviews and recommendations.
	Output 6.6 Enhanced application of biodiversity-relevant law and incentives in each country of the region.

ANNEX 4

LESSONS LEARNED DURING IMPLEMENTATION OF PDF B

Lessons Learned	Impact on Design
1. Need to clarify project mission as a regional articulation effort.	Consultations with officials of other MBC-related projects at the local and national level. Consultations with protected area directors in the eight participating countries.
2. The importance of understanding the proximate threats and underlying causes of biodiversity loss.	Development of a problem-tree and logical framework on regional problems.
3. Recognition of the economic, social, political and institutional complexities of interventions in the region.	A flexible project design that allows for reorientation of operational plans given that the project spans eight countries and six years
4. Active interest of peasant and indigenous groups to participate in the project.	Establishment of Consultative Group as a close partner to Project Steering Committee. Emphasis on using participatory mechanisms in relevant components.
5. The need to strengthen private and governmental institutions managing protected areas.	Strategic planning exercises and the training of officials and leaders related to protected areas will be a permanent element of the project.
6. The importance of making strategic alliances for project implementation and design.	During the design phase strategic alliances have been established with GTZ and DANIDA as agencies with interest in investment in the region.
7. The importance of integrating sustainability in to the long-term strategic planning process.	A mechanism for the systematic mobilization of financial resources is an integral component of the project and an expressed priority.
8. Develop capacity to change or reorient policies so that they can contribute to diminishing threats to biological diversity.	Basic studies, economic valuation and legislative reviews are included in the project.
9. The importance of integrating conservation activities with productive land-use activities.	The project has components relating to training, public awareness and exchange of successful experiences on conservation as well as sustainable use of natural resources.
10. Project personnel must show a sensitivity to the multinational and multisectoral nature of the MBC, and must share a common vision.	The process of search and selection of project personnel will include criteria to help build an integrated vision of the MBC.

11. Training is required at all levels in the region to build the MBC.

The project has targeted significant resources to training of its own and related staff.

The project has incorporated short-term training, regional exchanges, and support in project design. Activities have also been developed for incorporating bio-regional management and biodiversity conservation into the education system.

12. The need to have a balance in the project between top-down and bottom-up approaches and visions of the MBC.

The project will place great value on regional level actions aimed at strengthening local experiences.

13. Monitoring must serve as an analytical tool for re-evaluating and reorienting project activities.

Project design includes substantial internal monitoring.
A regional monitoring program for the MBC will be developed with the support of regional and national partners.

14. The Project Coordinating Unit must have sufficient functional autonomy.

The Coordinating Unit has been given significant physical and operational independence.

15. The need to form alliances with activities related to the climate change convention and international waters protection.

Project implementation will give consideration to building links with such projects in the region, and benefiting from synergies with other initiatives.

16. The need to develop better alliances with the private business sector.

Opportunities to develop such alliances will be explored through pilot projects.

ANNEX 5

MONITORING AND EVALUATION PLAN (UNDP/UNEP)

1. Project supervision will be carried out by the GEF implementing agencies (UNDP and UNEP), supported by National UNDP Offices in the region for day-to-day monitoring or troubleshooting. The supervision plan included in this annex describes the number and types of missions planned between officials and/or consultants of the GEF Unit of the Regional Bureau for LAC (RBLAC-New York) and the UNEP Latin America Regional Office (ROLAC-Mexico). The organization and implementation of supervision missions will be done as cost effectively as possible.

2. The dates in the table below are based on a starting date of April 1999. Dates will have to be adjusted to reflect any changes in the date of initiation.

3. A total of 63 supervision weeks is required, 39 by UNDP and 24 by UNEP.

Approximate Dates	Activities	Personnel	Person/Weeks
7/99	Project launching; POA revision; Operations Manual	UNDP representative UNEP representative Admin.specialist (UNDP) Monitoring specialist (UNEP)	1.5 1.5 1.5 1.5
10/99	General supervision; procedures review, coordination and disbursements.	UNDP rep. Financial specialist	1.5 2.0
3/2000	General supervision; performance report 1	UNDP rep. UNEP rep. Citizen participation specialist	1 1 1.5
7/2000	General supervision, POAII review	UNDP rep. UNEP rep. Social specialist (Exchanges)	1.5 1.5 2.0
10/2000	Information component review	UNEP rep. Information specialist	1.5 1.5
3/2001	General supervision Performance report 2	UNDP rep. UNEP rep. UNDP conflict resolution spec.	1 1 1.5
7/2001	General supervision, POAIII review	UNDP rep. UNDP environmental law specialist	1.5 1.5
10/2001	Review of policy alignment component	UNEP rep. Other specialist	1 1

Approximate Dates	Activities	Personnel	Person/Weeks
2/2002	General supervision, Performance report 3	UNDP rep. UNEP rep.	1 1
7/2002	General supervisor POAIV Review	UNDP rep. UNEP rep.	1 1
8/2002	Mid-term evaluation	UNDP rep. UNEP rep. UNDP fin. spec. UNEP info. spec. UNEP NatRes spec. Other UNDP spec.	2 2 1.5 1 1 1
10/2002	Educational component review	UNEP specialist	1.5
3/2003	General supervision, Performance report 4	UNDP rep. UNEP rep.	1 1
7/2003	General supervision, POAV review	UNDP rep. UNEP rep.	1 1
10/2003	Review of policy alignment component	UNDP specialist. UNEP specialist	1.5 1.5
0/2004	General supervision, Performance review 5	UNDP rep. UNEP rep.	1 1
7/2004	General supervision POAVI review	UNDP rep. UNEP rep.	1.5 1.5
10/2004	Exit and sustainability strategy	UNDP financial spec. Additional specialist	1 1
3/2005	Final review, Exit report	UNDP rep. UNEP rep. Add. specialist	2 2 2
	Subtotal UNDP		39
	Subtotal UNEP		24
	TOTAL		63

ANNEX 6

SCHEDULE FOR REVIEW, REPORTING AND EVALUATION OF PROJECT ACTIVITIES

Proposed date for commencing project activities: **April 1999**

Schedule for evaluation and reporting activities

- | | | |
|----|---|--------------|
| 1. | Initial Report | July 1999 |
| | GEF Project Implementation Review (PIR) | July 1999 |
| 2. | 1st. Performance Report (PPER) | March 2000 |
| | Tripartite Review (TPR) | April 2000 |
| | GEF-PIR | July 2000 |
| 3. | 2nd. Performance Report (PPER) | March 2001 |
| | TPR | April 2001 |
| | GEF-PIR | July 2001 |
| 4. | 3rd. Performance Report (PPER) | March 2002 |
| | TPR | April 2002 |
| | GEF-PIR | July 2002 |
| 5. | Mid-term evaluation | August 2002 |
| 6. | 4th. Performance Report (PPER) | March 2003 |
| | TRP | April 2003 |
| | GEF-PIR | July 2003 |
| 7. | 5th. Performance Report (PPER) | March 2003 |
| | TPR | April 2003 |
| | GEF-PIR | July 2003 |
| | 6th Performance Report | March 2004 |
| | TPR | April 2004 |
| | GEF-PIR | July 2004 |
| 8. | Final Annual Report | October 2004 |
| 9. | Final Report and Evaluation | March 2005 |
| | Final TPR | April 2005 |

ANNEX 7 TRAINING

Detailed terms of reference for each training activity will be developed at the beginning of the project by the technical experts at ROCU and the Regional Project Coordinator, in cooperation with the regional liaison officers and other MBC partners in each of the eight countries.

1. Scholarships

The project will establish a small scholarship fund to support formal education of highly qualified partners to increase effectiveness in the implementation of Programme activities, by acquiring and applying new abilities that can help accelerate the consolidation of the MBC.

This fund will be used to place selected government officials (national, municipal, local), NGO leaders, project managers, stakeholder leaders and others, in short, high-quality courses offered in the region through regional academic institutions such as CATIE, INCAE, EARTH, the University for Peace, and FLACSO among others.

Scholarships are estimated to range from three scholarships of US\$ 5,000 each to five annual scholarships of US\$ 3,000 each, up to a grand total of US\$ 90,000 over the six years of the project.

2. Travel, Workshops, and Exchanges

(a) Mobile Courses

The project will mobilize the sharing of experiences and knowledge among actors in countries across the MBC region. The project will organize a series of cross-border mobile courses. These courses will typically bring together 14 to 20 participants from two to three countries in the region over a 2 to 3 week period. The courses will include site visits, analysis of successful experiences in conservation and sustainable use of natural resources, and hands-on testing and application of skills acquired.

The mobile courses will be organized among decision-makers, mid-level officials, local leaders, and technical specialists not only to learn from the project, but also contribute ideas and approaches during the site visits. The mobile courses should in principle be developed around problems, issues, beneficiaries and territories, always involving two to three countries.

The estimated total cost per person is US\$ 3,000. Organizing 2 mobile courses a year with 15 participants each, over years 2, 3, 4, 5 and 6 of the project gives a grand total of US\$ 450,000.

(b) Regional and National Workshops

The project will develop a number of workshops and meetings at the national as well as the regional level, on a series of topics, including those described under Outputs 4.8-4.10, 5.2, 6.4 and 6.5.

This series of workshops and meetings will focus on building the capacities of regional stakeholder groups to participate fully in the development and implementation of the Programme in all its components. The courses available will cover topics such as strategic planning, consultations for priority determination, regional planning and others.

Approximately US\$ 900,000 is budgeted for these workshops; co-sponsors will be sought where appropriate and feasible.

(c) Exchanges

This form of training will occur between actors of the same type and level and has been notably successful in Central America and the Caribbean, especially as farmer-to-farmer interactions around agricultural production issues. Municipal officials will visit mayors, legislators with legislators, peasant leaders with peasant leaders, park officials with park officials to exchange experiences, confirm knowledge, and discuss and analyze strategies, policies, methodologies and other issues (management of protected areas, control and prevention of forest fires, community agroforestry, management of natural forests, improvement of coffee plantations with shade, forest certification, etc.) to help in the consolidation of the MBC.

Generally, exchanges will be developed around a site in a specific country, for example: taking peasant and indigenous leaders from Belize, Nicaragua, Honduras and Panama to the Peten, Guatemala to visit community forest concessions associated with ACOFOP and CONAP; or to take peasants from Guatemala, El Salvador, Honduras and Mexico to Siuna, Nicaragua to observe and analyze the use of velvet beans as soil cover and fertility improver in corn fields under a peasant to peasant process as means to stabilize agricultural production at the forest-field interface.

Many alternatives will present themselves throughout the life of the project. The cost per person is calculated at about \$2,000 U.S. and approximately 100 people per year will participate with a total financial ceiling for these exchanges of not more than one million dollars in five years.

3. In-Service Training

This kind of training focuses on improving the skills and abilities of officials and partners closest to the establishment of the Programme. This effort is focused on the training of officials of the Regional Coordination Unit (ROCU), of the national links to the project, of the officials and counterparts in the National MBC Commissions (primarily those belonging to Departments or Institutes for Protected Areas and Forests in each country of the region).

Topics for training sessions will be intimately related to project components. Details of such sessions will be included in the Annual Work Plans, and will be reflected in the Strategic Plans.

For this activity, no more than US\$ 40,000 from GEF resources will be required during the six project years, for a grand total of US\$ 240,000.

ANNEX 8 EQUIPMENT

1. Office Equipment

Specific office equipment lists will be developed by the Project Director for the Regional Operations Coordinating Unit, as well as by Regional Liaisons for each of the National Offices.

The minimum equipment that has been budgeted for include:

For ROCU:

- 8 desks, 16 chairs, cabinets, 4 files
- 8 desktop computers with modem and printer
- 4 laptop computers with printer
- 1 fax machine
- 1 copy machine
- 1 main telephone line with 8 extensions

For each national office (x 8), and liaison (administration and support)

- 1 desk, 2 chairs, 1 cabinet, 1 file
- 1 desktop computer with printer and surge protector
- 1 fax machine
- 1 telephone
- 1 electric fan

It is recommended that, as far as possible, all equipment (fungible or otherwise) is purchased locally. Computing equipment for the technical liaison officers will be purchased with GTZ resources.

2. Vehicles

The project will acquire, with the assistance of national UNDP offices, nine four-wheel drive vehicles, one for the use of the Regional Project Coordinator and the regional technical team in ROCU, and one each for the eight countries participating in the project, for the use of the regional liaison officers located in the MBC program national offices. GTZ will acquire a vehicle for the use of their paid regional specialist at ROCU.

The Regional Project Coordinator, the Administrator and the UNDP Country Office will be responsible for developing strict rules on the use of such vehicles, in close consultation with the national liaison officers and their national counterparts.

Such rules will include the following: the vehicle will be appropriately registered to UNDP and insured by the project; drivers will have a current driver's license and be over 21 years of age; the vehicles will not be operated for personal use. The project will not buy motorcycles, boats or outboard motors.

ANNEX 9

SUBCONTRACTS

The project will be implemented by the Regional Operations Coordinating Unit (ROCU) which, as one of its principal activities, will develop, award and monitor subcontracts for specific project activities. Subcontracts will be issued through a competitive bidding process to either one firm or a consortium of agencies. Subcontractors will be accountable to the Steering Committee of the project, UNDP, UNEP and CCAD.

Subcontractors will be responsible for developing activities in coordination with their counterparts in each country and with other regional and national initiatives related to the establishment of the MBC. They will be required to communicate with the regional liaisons in each of the countries where activities are carried out.

Most of the activities to be implemented under subcontracts are to strengthen national and or regional activities which are underway or in incipient stages of development or implementation. The project budget shows only the GEF contribution and not the total costs of the activity. The GEF contribution will complement funding mobilized from other sources. Specific TORs for each subcontract will be developed by ROCU or under ROCU supervision.

A list of subcontracts is provided below and is not meant to be exhaustive. Throughout the course of project execution, additional funding will be mobilized to maximize economies in order to expand the scope and impact of the project through other activities, subcontracted or not.

1. Regional conservation and sustainable use strategy for biodiversity in protected areas
US\$ 80,000

This subcontract will identify sites with the greatest potential of preserving the greatest amount of biodiversity throughout all ecosystems (Nearctic and neotropical) in the region. The goal of this subcontract is to ensure a representative system of protected areas throughout Mesoamerica and to minimize risk to biodiversity overall. This subcontract will be developed in close communication with CCAP and the corresponding CONADIBIOS.

2. Regional conservation strategy for biological diversity in water bodies
US\$ 60,000

This subcontract will determine the importance of freshwater bodies and coastal wetlands to regional biodiversity. The product will serve to initiate a regional effort to conserve biodiversity through sustainable use of freshwater and coastal ecosystems. The subcontract aims to conduct an inventory of freshwater bodies in the region and to describe their biodiversity. It will assist countries to determine conservation priorities in these ecosystems. Special attention will be given to ecosystems and basins shared between countries, and a series of recommendations to address their conservation will be proposed. The strategy will build on the Regional Action Plan for Water Resources. The strategy will be developed in consultation with and approved by the CCAP, and published and distributed broadly in the region.

3. Regional strategy for ecological restoration
US\$ 60,000

This subcontract will identify strategic areas in the Mesoamerican Biological Corridor requiring ecological restoration, especially to ensure connectivity. Using participatory consultations, the subcontract will identify strategic issues and sites in each country and in border areas for new initiatives. Recommendations will be made to ensure links with the commitments and opportunities of the

Desertification Convention. The strategy will be consulted with and approved by the CCAB-AP and published and widely distributed in the region.

4. Development of training program in mobilizing financial resources

US\$ 80,000

This subcontract will identify the thematic priorities and target groups to whom the training program will be directed. It will develop the training strategy and plan, intended to train 40 key people from the sectors that have been identified.

5. Design and production of educational materials: resource mobilization

US\$ 50,000

This subcontract will be closely linked to the previous one. It will design and produce educational materials to ensure the effectiveness of the training programme and to assist in application of the knowledge and skills acquired. Ad-hoc materials at INCAE, FLACSO or other regional institutions, will also be reviewed and agreements for their use and distribution will be developed.

6. Long-term financing plan for the MBC

US\$ 40,000

The subcontract will formulate a long-term financing plan, taking into account regional and national experience in resource mobilization. The plan will take into account the different rates of incorporation of MBC activities into national budgeting processes and advances in regional integration processes.

7. Corre-net Design.

US\$ 60,000

This subcontract will design the information system to be used by ROCU, taking into account all databases and registries identified by the project. It will include a Webpage and electronic formats needed by the project from the beginning, including means of accessing and consolidating networks and geographic information systems. It includes not only the design but also the assembly of the network and initial training for key ROCU personnel.

8. Design and Publication of Special MBC Bulletins.

US\$ 80,000

Even though regular MBC bulletins will come out routinely from the work of the ROCU, special publications will be required to promote the MBC and keep stakeholders informed of progress in establishment of the Programme or consolidation of the MBC. This subcontract also requires the generation of various products such as maps, posters, brochures and reports. It requires production of materials on special topics including environmental services, flood and fire prevention, ecotourism promotion, and examples of best practices, etc. Co-sponsorship will be sought from private and NGO sources for special editions and products.

9. Design of the Regional Compendium of Biodiversity Information.

US\$ 60,000

This subcontract is linked to the development of the Regional Information Network on Biodiversity, which will generate national biodiversity information compendia. This subcontract is designed to consolidate each country's information, integrating it into a single regional compendium. Such a compendium will be available in printed and electronic forms and widely distributed through the region.

10. Identification and Systematization of Agroforestry Experiences, Protected Areas Management and Water and Energy Management.

US\$ 120,000

This subcontract will carry out a country-by-country inventory of land-use experiences than can exemplify the goals of the construction of the MBC. It will identify activities and sites to be monitored and visited during national and regional exchanges.

11. Development and Publication of Innovative Sustainable Experiences in Agroforestry, Protected Areas and Forests Management and Water and Energy Management.

US\$ 70,000

This subcontract will be carried out immediately following the previous one, based on the results obtained. Its aim is to design, publish and distributive educational and promotional material regarding best practices encountered and systematized by the previous subcontract.

12. Design and Development of the Tool Box for the Corre-net.

US\$ 160,000

This subcontract will produce a series of technical products to be entered on Corre-net. This implies the consultative identification throughout the region of concrete products to be developed (demand), and their development and dissemination to groups and organizations of the MBC. It will include simple, practical tools useful to MBC partners. This subcontract will seek the collaboration of all regional and national projects contributing to the MBC.

13. Development and Publication of the Biodiversity/Environmental Atlas of Mesoamerica.

US\$ 80,000

This subcontract will bring together a series of thematic maps of Central America and southern Mexico (vegetation, protected areas, sustainable uses, corridors, fragile ecosystems, gallery forests, shared basins, development infrastructure, vulnerability to floods and fire, etc.). They will be edited and organized as an electronic overlay atlas to be placed on the MBC Website. It will also be published as a book and disseminated throughout the region.

14. Development of a Report on the State of Biodiversity in Mesoamerica.

US\$ 80,000

This subcontract will update, by the year 2000, the Report on the Environment that CCAD and its collaborators published in 1998 to focus on the status of biodiversity in Mesoamerica and the MBC. It includes the review of databases, charts, maps, figures, etc., and the development of a new publication in both English and Spanish.

15. Determination of Criteria and Indicators for MBC Consolidation.

US\$ 80,000

This subcontract will be developed in consultation with technicians and regional partners and will design a system of criteria and indicators to measure the progress of the MBC. This implies the implementation of a series of workshops to identify criteria and indicators for conservation in protected areas as well as for sustainable use in farming, livestock raising and forest management areas. The subcontract will also identify criteria and indicators to measure the success of development of corridors.

16. Testing of Criteria and Indicators in MBC Priority Areas.

US\$ 120,000

This subcontract builds on the previous one and will test the system of criteria and indicators in a series of pilot areas (in support of local or national initiatives already underway in priority MBC areas) in the region.

17. Design and Installation of the Geographic Information System of the MBC.

US\$ 140,000

This subcontract will identify the most efficient ways to establish a GIS for the MBC and to support its principal nodes. The GIS may be located in a single institution (with existing comparative advantages) or spread over a series of agencies in Central America already containing equipment and strategic information. Various agreements for work in common will be negotiated. Integration of GIS and Correnet will be analyzed and effected.

18. Development of vegetation and other maps for monitoring of land use in the MBC.

US\$ 100,000

The purpose of this subcontract is to contribute to the development of vegetation classification systems (principally in Guatemala, El Salvador, Costa Rica and Panama) that can be integrated with other products into a regional system which would provide a baseline from which to monitor protected areas and the construction of the MBC in interconnected areas. Initiatives in this regard currently exist for Belize, Honduras and Nicaragua.

19. Development and Application of a Participatory Monitoring System in the MBC.

US\$ 130,000

This subcontract will develop local monitoring capacities as elements for regional monitoring of MBC progress. It will imply methodological adjustments, specific training and local testing in MBC priority areas. It will produce information products on threats and opportunities for the MBC.

20. Training Program in Leadership Services.

US\$ 120,000

This subcontract will develop an educational strategy in support of the MBC. Its priority will be to develop a series of training activities for stakeholder groups in the region including legislators, mayors, national parks officials, peasant leaders, leaders of indigenous organizations, etc. Topics will be defined in detail by diagnostic studies prior to development of training activities.

21. Training Program for Elementary Education Teachers.

US\$ 100,000

This subcontract will develop training activities for elementary education teachers in MBC priority zones. It will include elements of cultural identification with native flora and fauna, protection and sustainable use of natural resources, economic value of biodiversity, etc. The subcontract includes the hiring of a consultant or of personnel to carry out these activities and the teaching of at least five courses.

22. Campaign for the Protection of Riverbank Vegetation as an Instrument in the Construction of the MBC.

US\$ 80,000

This subcontract will raise awareness in the region of the importance of riverbank vegetation including gallery forests and coastal mangroves. It will initiate a regional movement to save and use in a sustainable manner the biological diversity of these formations. The subcontract will initiate an inventory of corridors along the major rivers of Central America and describe their biodiversity. Conservation priorities will be consulted with all countries. Special attention will be given to shared ecosystems and basins among the countries. It will identify and sketch out new proposals for the safeguarding of these resources. It will build on the Regional Action Plan for Water Resources. The campaign will be consulted with and approved by the CCAP and carried out throughout the region.

23. Development of Educational Materials for Best Land Use Practices in the MBC.

US\$ 60,000

This subcontract is aimed at design and production of educational materials (posters, brochures, calendars, etc.) demonstrating best land use practices in the MBC areas. Materials will be distributed in priority areas of the MBC.

24. Development of Educational Materials on the Concept and Benefits of the MBC.

US\$ 60,000

This subcontract will produce educational and promotional material on the concept and local, national and regional benefits and importance of the MBC. It will be carefully coordinated with other regional and national initiatives so as not to duplicate efforts. It will include topics such as water production, flood prevention, energy production, etc.

25. Development of Reports on the Status of the MBC.

US\$ 80,000

This subcontract will produce annual reports demonstrating the trends toward biodiversity conservation and sustainable use in all countries of the region, as well as demonstrate the value it has for disaster prevention and other ecosystem goods and services. These reports will include professional photography, maps and a summary in English. The amount of this subcontract includes partial publication costs; cosponsors will be actively sought to offset publication costs.

26. Consultative Development and Adoption of MBC Principles and Concepts into Official Curricula for Elementary Education.

US\$ 120,000

This subcontract will work closely with the Ministries of Education in the seven Central American countries and the States of Southern Mexico to develop modules for incorporation of MBC program elements into elementary education curricula. The subcontract will require content formulation, consultations and workshops and follow-up to ensure adoption.

27. Development Biodiversity and MBC materials for the Region's Teachers.

US\$ 80,000

Concurrently with the previous subcontract, this one requires the development of companion materials to fully develop and support curricular content. These may consist of guides and manuals for teaching school children about the scope and importance of the MBC and the role they can play both now and in the future. Material will reflect subregional differences and priorities. This subcontract also includes printing and distribution of the material. Private sector sponsorship will be sought to offset costs.

28. Design and development of four massive Environmental Education Campaigns.

US\$ 80,000

This subcontract will design and develop four regional biodiversity/natural resources education campaigns with the MBC as the central focus. These campaigns will increase public awareness of the Programme to Consolidate the MBC and its links with national programs. Costs are intended to be shared with national MBC initiatives, and private sector sponsorship will be sought to offset costs.

29. Design and Production of TV Programs on the MBC.

US\$ 100,000

Eight spots or short TV programs about the MBC will be designed and produced for national and international time slots. Coordination with national efforts will be important to incorporate locally relevant material. The subcontract will include contacting networks and stations for the transmission of the spots as well as marketing and advertising partners in the private sector.

30. Design and Production of Radio Programs on the MBC.

US\$ 80,000

This subcontract will produce a series of low-cost radio spots to be transmitted to the region's substantial rural listening audience. The messages will be directed at making better use of natural resources and the land, as a way that rural individuals and communities can participate in the MBC while improving

productivity and testing alternative production systems. Coordination with national efforts will be important to incorporate locally relevant material. The subcontract includes development of messages in different native languages in the sub-region. It also includes initial transmission costs through principal rural radio stations in Central American and southeast Mexico; private sector sponsorship and cost-sharing with national MBC initiatives will be sought.

31. Development of the Protocol for the Regional Convention on Biodiversity and Protected Areas.

US\$ 60,000

This subcontract will develop a consultative proposal to operationalise the *Regional Convention on Biodiversity and Protected Areas*, as a partial means of creating an enabling environment for the consolidation of the MBC. UNEP will provide technical services to guarantee product quality.

32. Training of Interest Groups on Environmental Legislation in Mesoamerica related to the consolidation of the MBC.

US\$ 200,000

This subcontract will incorporate and emphasize biodiversity issues within the activities already under implementation in the region by the CCAD and its national partners: it will also support relevant national activities focused on regional coordination of the integration process as it relates to environmental legislation and biodiversity. It includes the development of training activities on topics such as genetic resources, intellectual property rights, the harmonization of policies and regulations to eliminate illegal trafficking in native flora and fauna, as well as the application and enforcement of existing environmental legislation. This contract will also guarantee national dissemination of achievements related to commitments under international and regional agreements (on biodiversity, climate change and international waters).

33. Subcontracts to be defined in the future.

US\$ 120,000

Resources are set aside for contingent financing of future subcontracts to be defined by common agreement between ROCU and the Project Steering Committee.

ANNEX 10

TERMS OF REFERENCE FOR PROJECT PERSONNEL

A. LONG-TERM PROJECT PERSONNEL

These terms of reference for the members of the Coordinating Unit (ROCU) and for the regional liaison officers based in the countries provide a general indication of the various responsibilities for each position. All these positions are planned for the life of the project (six years).

1. ROCU Coordinator (Regional Position)

Background

The position of the ROCU Coordinator will be filled following regular procedures for competitive selection, with preference being given to Central American nationals. Following advertisement of the post a short list of candidates will be produced by UNDP and CCAD. This short list will then be reviewed by an ad hoc group consisting of representatives from UNDP, World Bank, UNEP and CCAD. The ad hoc group will further short list 2 to 3 candidates, and select a final candidate. GTZ and DANIDA will be consulted in the final selection of the candidate.

Qualifications and Requirements

Candidates should have as a minimum an advanced university degree (Ph.D. or Masters) in any discipline related to the natural sciences, and should also have a minimum of 10 years experience in administration/management of protected areas and/or biological diversity in the Central American region, as well as project coordination and administrative management. Candidates should possess a willingness to travel frequently to all eight participating countries as well as an ability to work in multidisciplinary groups, proven ability in working well with stakeholder interest groups, and experience with participatory planning models.

The contract will be for an initial three-year period, renewable for an equal period of time. The ROCU Coordinator will report directly to the Project Steering Committee and will maintain constant communication with the Executive Secretary of the CCAD-CCAB-AP (Environmental Directorate-SICA), and with the principal UNDP Country Office backstopping the project.

The ROCU Coordinator will be accountable to CCAD, UNDP and UNEP for the achievement of project objectives, results and all fundamental aspects of project execution.

Description of functions

- Technical and administrative coordination of all project areas and actions.
- Coordination and supervision of work of ROCU.
- Coordination and supervision of the performance of the Regional Liaison Officers and communication with national authorities in this respect, especially MBC Commissions).
- Direct implementation of Component 1 (Outputs 1.1-1.7)
- Supervision of implementation of the project's regional components as well as the work of the subcontractors and other contracted consultants.
- Formulation of annual operational plans, including budget revisions.
- Preparation of project technical reports based on regional reports and supervision of formulation of financial reports by the regional implementing agency.
- Application of UNDP/UNEP/GEF norms and standards to project monitoring and reporting.

2. Regional Liaison Officers (National Positions in eight countries)

Qualifications and Requirements

The Regional Liaison Officers will be citizens of countries where they will be working. The selection process will be organized by the ROCU Coordinator in close communication with UNDP and GTZ, with the approval of the national institution where the coordination for the strategic program for the MBC is located.

Candidates should have as a minimum an advanced university degree in a field related to the natural sciences, geography, development economics or other areas related to the establishment of the MBC. As a whole, individual country Liaison Officers should have different specialties so that they can form a complementary group in carrying out technical support work. A good match will need to be established between the specialty areas of the liaison officers and the project's components.

Candidates should have a minimum of five years work experience in their countries, in work related to the administration/management of protected areas, natural resources or sustainable agriculture and/or participatory work in rural development.

Candidates will have an initial 3-year contract, with possibility of extension for a similar period, based in their counterpart institution. They will be responsible to the ROCU Coordinator and should have excellent communication skills to advance the strategic Program for the MBC at the national level.

Three Liaison Officers will be financed by GEF resources and five with GTZ resources (GTZ-CCAD Biological Corridor Project).

Description of functions

- Supervise compliance with objectives, results, activities and all fundamental aspects of project execution in each country.
- Be accountable to ROCU, the National Counterpart, and UNDP/UNEP/GTZ for the achievement of objectives and results in the assigned Project.
- Technical and administrative coordination of Project activities at the national level.
- Provide agreed-upon technical assistance to the ROCU Coordinator.
- Coordinate and supervise contractor functions at the national level.
- Elaborate annual operational plans at the national level.
- Select personnel and consultants to carry out national project activities.
- Prepare agreements, subcontracts and terms of reference for local contracting and follow-up the same.
- Procure equipment and other necessary goods and services for project execution.
- Coordinate with other organizations and institutions that will participate in MBC establishment.
- Prepare project advance reports for monitoring and evaluation exercises according to UNDP/UNEP regulations.
- Supervise advisors, consultants and experts contracted by the project.
- Participate in support for project evaluation, testing and monitoring missions.
- Apply all UNDP/UNEP/GEF-GTZ regulations to project execution.

3. Policy Expert (Regional Position)

Qualifications and Requirements

The Policy Expert will be located at ROCU and will report directly to the ROCU Coordinator. The position will be for a period of 3 years with the potential for renewal of another three years. The Candidate will be a citizen of a Central American country with, at a minimum, an advanced university degree in fields relating to natural resource economics, development planning, or environmental legislation; over five years experience working for conservation and sustainable resource use projects; preferably with experience in regional projects; the ability to work in groups and network; and experience in conflict resolution. The Policy Expert should be willing to travel extensively throughout the region.

Description of main responsibilities

The Policy Expert will assist in all aspects related to Component 6 (outputs 6.1-6.6) and to a large extent to Component 2 (outputs 2.1-2.8). The Policy Expert will be the policy advisor to the ROCU Coordinator and will be responsible for analyzing and evaluating challenges and opportunities in the field of environmental legislation and policy developments vis-à-vis the establishment and strengthening of the MBC. The Policy Expert will have the primary responsibility of following up the financial resource mobilization aspects of the project; supervision of complementary projects critical to the more efficient and rapid establishment of the MBC; and assistance to the Project Director in preparing new external cooperation proposals to support the MBC at the regional level.

4. Information and Monitoring Technician (National Position)

Qualifications and Requirements

The Information and Monitoring Technician will be located at ROCU and will report directly to the ROCU Coordinator. The position will be for a period of three years with potential for renewal of another three years. Candidates must be citizens of a Central American country. A University degree in an information systems-related field is desirable, proven ability with Windows and ArcInfo, and a minimum of three years work experience with projects relating to environmental issues. Strong writing skills, ability to work as a team member under pressure, and bilingualism in Spanish and English are an asset.

Description of main responsibilities

The Information and Monitoring Technician will assist in all aspects of Component 3 (Outputs 3.1-3.9). S/he will be the principal advisor to the ROCU Coordinator on all matters of information network systems, use of electronic communication strategies, electronic file management and monitoring the consolidation of the MBC. The Information and Monitoring Technician will be responsible for maintaining all databases current and up-to-date with the most recent information required by the project. S/he will also be the operational liaison for all information networks maintained by the project.

5. Sustainable Management of Natural Resources and Protected Areas Expert (Regional position/GTZ)

Qualifications and Requirements

The Expert will be located at ROCU and will report directly to the ROCU Coordinator. The position will be for a period of three years with an option to renew the contract of another three years. The Candidate must be a citizen of a Central American country, with at least a University degree in biology, geography, natural history or agricultural or forestry engineering, and 5 years experience in natural resources management in Central America. Ability to undertake land use and protected area planning and

experience in working with different interest groups is highly desirable. The Candidate must be willing to travel extensively throughout the region.

Description of main responsibilities

The Expert will assist in all components, in particular with Outputs 1.5, 1.7, 2.7, 2.8, 3.3, 3.4, 3.5, 3.7, and relevant aspects of Components 5 and 6. S/he will be the principal advisor on strategic planning, and the identification of investment opportunities in protected areas and sustainable use of natural resources in corridors. S/he will be responsible for analyzing geographical priorities for the Mesoamerican Biological Corridor at the regional level.

6. Communications and Public Awareness Expert (Regional Position)

Qualifications and Requirements

The Communications and Public Awareness Expert will be located at ROCU and will report directly to the ROCU Coordinator. The position will be for a period of three year with the potential for renewal of another three years. The Candidate must be a citizen of a Central American country, with an advanced degree in Communication Sciences, teaching or related fields, and experience in the preparation and dissemination of educational materials preferably in the environmental field. Experience in integrated conservation and development projects at the regional level is preferred. The Candidate must have a proven ability to design and edit educational materials.

Description of main responsibilities

The Communications and Public Awareness Expert will assist ROCU with implementing Components 4 and 5. S/he will be the principal advisor to the ROCU Coordinator on issues relating to public awareness and participation.

7. Administrator (National Position)

Qualifications and Requirements

The Administrator will be located at ROCU and will report directly to the ROCU Coordinator. The position will be for a period of three years with the potential for renewal of another three years. The Candidate must be a citizen of a Central American country; preferably with a degree in business, management, auditing or economics; experience with administration of environmental or natural resource management projects in Central America; and an ability to supervise personnel. Proven ability in financial management and organizing regional events are an asset.

Description of main responsibilities

The Administrator will be responsible for supporting the ROCU Coordinator in managing financial resources and project accounting according to agreements with CCAD and the requirements of UNDP and UNEP. The Administrator, under the guidance of the ROCU Coordinator, will identify financial needs by semester in order to make all necessary arrangements for their timely availability. The Administrator will also be the principal financial and personnel management advisor to the ROCU Coordinator.

8. Administrative Assistant (National Position)

Qualifications and Requirements

The Administrative Assistant will be located at ROCU and will report to the Administrator. The position will be for a period of three year with potential for renewal of another three years. The Candidate must have at least a baccalaureate degree in auditing or accounting and a minimum of 5 years experience with regional projects or programs. Proven ability in accounts management, inventory and auditing and ethical standards are highly desirable.

Description of main responsibilities

The Administrative Assistant will be responsible for supporting the Administrator in areas including accounting procedures, bank accounts, travel allowances and authorizations, inventory management, logistical and event management, etc.

9. Secretary (National Position)

Qualifications and Requirements

The Secretary will be located at ROCU and will report to the Administrator. The position will be for a period of three year with potential to renew of another three years. The Candidate must be bilingual, with a proven ability in information management, rapid dictation and typing, facility with Windows-based software, experience in management-level secretarial work, experience with faxes, scanners, email, and audiovisual equipment, and a proven ability in interpersonal relations. A minimum of five years experience in international organizations is preferable.

Description of main responsibilities

The Secretary will be responsible for secretarial support services (daily correspondence sent, filed and processed, travel planning and confirmation, telephone communications, fax and other office equipment operation, general information management: routing, processing, storage), for the ROCU Coordinator, as well as for the technical and regional experts based at ROCU. The Secretary will also be responsible for providing international communications services for short-term consultants.

10. Messenger-Porter (National Position)

Qualifications and Requirements

The Messenger-Porter will be located at ROCU and will report to the Administrator. The position will be for a period of three years with potential for renewal of another three years. The Candidate must have completed primary education as a minimum, must have proven experience as a messenger, ability in filing and organizing, and a current and clean driver's license for light vehicles. Availability for work outside of regular work hours and days is desirable.

Description of main responsibilities

The Messenger-Porter will provide multiple services including: daily messenger, rapid price quotations for small purchases, efficient collation of documents, daily cleaning of ROCU offices and vehicles.

B. SHORT-TERM CONSULTING PERSONNEL

The following are preliminary terms of reference for a number of the short-term consultants. Detailed terms of reference will be developed, jointly by the experts and the ROCU Coordinator. Only the more visible consultant contracts are listed below, but resources have been budgeted for more consultant contracts arising during implementation.

1. Development of a Strategy for Project Evaluation

Location: ROCU
Approximate duration: 1 month in 1st year.
Expected product: Proposal detailing mechanisms for the monitoring and evaluation of the project over project life, covering ROCU and National Offices.
Qualifications: Systems engineer, Institutional Modernization specialist, and/or Monitoring and Project Evaluation Expert.

2. Proposals for component Strategies for MBC Establishment

Location: ROCU
Approximate duration: 2 months in years 2, 4 and 6.
Expected product: Proposals for more viable strategies for MBC establishment (including shade coffee, natural forests management, disaster prevention, water production and biodiversity protection).
Qualifications: Soil-use Planner, Geographer or Agricultural economists with experience in production systems, markets development, portfolio management, and such.

3. Strategic Planning Facilitator

Location: ROCU
Approximate duration: 3 months in years 1, 3 and 5.
Expected product: Develop three strategic plans in a participatory manner.
Qualifications: Systems Engineer, specialist in participatory planning methodologies, experience in developing Logical Frameworks, FODAS, etc. Experience in developing strategic plans for institutions and projects.

4. Co-Management Specialist

Location: Central America
Approximate duration: 2 months in 1st year.
Expected product: Inventory of co-management cases in Central America and, analysis and recommendations of best cases that are most suitable to the MBC context and program.
Qualifications: Sociologist, Forester or Specialist in Protected Areas; with experience in institutional decentralization, forest certification, agreements and contracts negotiation.

5. Sustainable Agriculture Specialist

Location: Central America
Approximate duration: 2 months in 1st year.

Expected product: Inventory of agricultural experiences suitable to the establishment of the MBC and analysis and recommendations on initiatives with a high impact that the MBC should support in the short-term.

Qualifications: Agronomist, Natural Resources Engineer, Agricultural Economist; experience in organic agriculture, shade coffee or natural forests use; experience in agricultural extension programs and marketing of non-traditional products.

6. Forest Management Expert

Location: Central America

Approximate duration: 2 months in year 1.

Expected product: **Inventory of large,** medium and small-scale experiences in forest management and community forestry and analysis and recommendations on the most promising experiences for establishment of the MBC.

Qualifications: Forestry engineer; experience in Forestry Development Incentives; experience with AIJ/JI opportunities and other innovative ways to promote forest management.

7. Ecotourism Specialist

Location: Central America

Approximate duration: 2 months in year 1.

Expected product: **Regional inventory** of fully functioning ecotourism experiences and analysis and recommendations of most promising ones for the MBC.

Qualifications: Architect, Geographer or Tourism Degree; experience in the development of new tourism products; experience in the development of site plans and local strategies for ecotourism development.

8. Disaster Vulnerability Analyst

Location: Central America

Approximate duration: 2 months in year 1.

Expected product: **Identification and analysis** of zones most vulnerable to natural disasters in Mesoamerica and selection of priority areas where the project can collaborate with authorities and donors to diminish risks.

Qualifications: Environmental engineer or equivalent; experience in rural sanitation or small-scale energy products.

9. Conservation Financing Specialist

Location: ROCU

Approximate duration: 2 months in year 1.

Expected product: **Identification of current issues** in resource mobilization, geographic areas and financing mechanisms to help prioritize training needs, and implement resource mobilization.

Qualifications: Natural Resource economist or equivalent; experience in the development of financial mechanisms for conservation (project development, management of credit portfolios, trusts, national conservation funds, etc).

10. Formulation of New Proposals

Location: Mesoamerica
Approximate duration: 2 months in years 3, 4 and 5.
Expected product: Preparation of project proposals required by regional partners related to establishment of the MBC.
Qualifications: Thematic specialist; experience in the development of proposals for national financing or linked to external cooperation initiatives; experience with LogFrames, FODAS.

11. Specialist in Database Design

Location: ROCU
Approximate duration: 2 months in years 1 and 3.
Expected product: Design and installation of all MBC Program databases, such as financing sources, topic-specific networks, consultants roster, external cooperation projects roster, roster of theme-based experiences, remittance lists by topic of interest.
Qualifications: Information engineer or similar; development of environmental and natural resources databases; experience in the development of information networks.

12. Geographic Information Systems Specialist

Location: ROCU
Approximate duration: 2 months in year 1.
Expected product: Diagnostic of best options for MBC-GIS development, installation and networking.
Qualifications: Agricultural engineer or Geographer; demonstrated experience in management of Landsat, Spot, etc., for remote sensing data (Arcinfo, Arcexplorer, etc.)

13. Corre-net Toolbox Users

Location: ROCU
Approximate duration: 2 months in year 1.
Expected products: Identification of users, analysis of demand, identification of products, design of toolbox.
Qualifications: Ecologist, Economist, Architect; specialist in communication materials on environmental themes; expert in the development of electronic educational materials.

14. Specialist in Participatory Monitoring Systems

Location: Mesoamerica
Approximate duration: 2 months in year 1.
Expected product: Identification of national and local partners for the development of a participatory monitoring network for establishment of the MBC; design of network and implementation plan.
Qualifications: Geographer, Agricultural economist or Anthropologist; experience in participatory mapping or other techniques of participatory monitoring.

15. Emerging Strategic Issues

Location: Mesoamerica
Approximate duration: 2 months in years 1 and 3.

Expected product: Analysis of emerging issues related to improving and multiplying efforts for the establishment of the MBC; identification of mitigative or other measures to be addressed by Programme; incorporation of issues and measures into Strategic Plans.

Qualifications: Agricultural economist, political scientist or similar; specialist in strategic planning.

16. Regional Exchanges

Location: Mesoamerica

Approximate duration: 3 months in years 1 and 3.

Expected product: Needs assessment on thematic and geographic exchanges amongst actors related to establishment of the MBC.

Qualifications: Sociologist, Anthropologist or similar; experience in peasant and indigenous exchanges; facilitator for industry dialogues, ability in intercultural communication.

17. Environmental Education Specialist

Location: Mesoamerica

Approximate duration: 3 months in years 1 and 3.

Expected product: Identification of training needs related to establishment of the MBC; proposed plan of action to address needs through Project activities with support from private sector.

Qualifications: Educator, or similar; experience in the development of environmental curricula; experience in the development of educational instruments to promote Biodiversity Education.

18. Communications Specialist (I)

Location: ROCU

Approximate duration: 2 months in years 1 and 3.

Expected product: Development of a regional communications strategy for the MBC, including an inventory of media interested in spreading the concepts of sustainability.

Qualifications: Communicator, Journalist, Publicist or similar; experience in development of radio spots, television announcements, print editorials, etc.

19. Communications Specialist (II)

Location: ROCU

Approximate duration: 1 month in year 1.

Expected product: Development of a corporate image for the MBC.

Qualifications: Publicist, Public Relations or Communications Specialist; experience in the development of a corporate image.

20. Public Awareness Campaign

Location: ROCU

Approximate duration: 1 month; year 2

Expected product: Identification of key topics and most effective instruments for extensive dissemination of MBC concepts.

Qualifications: Publicist, Communicator or similar; experience in major public awareness campaigns; ability to develop independent campaigns.

21. Negotiation Capacity Specialist

Location: Mesoamerica

Approximate duration: 3 months; year 2, 3, 4 and 5

Expected product: Increase the region's negotiation capacities for agreements that support the long-term establishment of the MBC.

Qualifications: Lawyer, Jurist, International Relations specialist; experience in negotiations and international agreements.

22. Protected Areas policies and specialized themes

Location: Mesoamerica

Approximate duration: 3 months; year 2

Expected product: Analysis of trends in PA establishment, management, pressures, SICAP, and CCAP capacities; proposal for remedial and strategic measures.

Qualifications: Lawyer, Jurist, Environmental Legislation Specialist; experience in the development of environmental legislation in Central America; experience in working with Environmental Commissions within National Legislatures in Mesoamerica.

23. Improvement in regional ability in product certification

Location: Mesoamerica

Approximate duration: 3 months; year 3

Expected product: Proposal for financial mechanisms for supporting the establishment of the MBC using certification or ecologically and socially responsible revenue stamps.

Qualifications: Lawyer, Jurists, Specialist in Environmental Legislation; experience in the development of environmental legislation in Central America; work experience with Environmental Commissions within National Legislatures in Mesoamerica.

24. Analysis of the appropriate application of biodiversity/environmental legislation

Location: Mesoamerica

Approximate duration: 3 months; year 2, 3 and 4

Expected product: Analysis and improved understanding of the barriers to the effective application of biodiversity/environmental legislation in the region.

Qualifications: Lawyer, Jurist, Specialist in Environmental Legislation; experience in the development of environmental legislation in Central America; work experience with Environmental Commissions within National Legislatures in Mesoamerica.

ANNEX 11

TERMS OF REFERENCE FOR THE PROJECT STEERING COMMITTEE, CONSULTATIVE GROUP AND TECHNICAL ADVISORY GROUP

PROJECT STEERING COMMITTEE

1. The Steering Committee (PSC) will consist of ten people invited by CCAD and UNDP.
2. Participating members will be permanent representatives from the following institutions. The Steering Committee may invite other institutions as observers.
 - The Central American Commission on Environment and Development (CCAD)
 - The Central American Councils on Forests and Protected Areas (CCAB-AP)
 - The Technical Advisory Group
 - The Consultative Group
 - UNDP Country Office
 - UNEP Regional Office
 - World Bank representative
 - CTA for the MBC-GTZ Project
 - ROCU Coordinator
3. The Steering Committee will meet at least twice a year or as agreed by the Steering Committee after the first 18 months of project implementation. Teleconferences and email will be used to maintain a high level of communication.
4. The primary activities of the Steering Committee are to:
 - establish guidelines, methods and criteria for general project supervision,
 - review and approve the annual operational or work plans,
 - review and approve Strategic Plans,
 - approve final Terms of Reference for subcontracts (by teleconference and/or on no-objections basis),
 - approve annual reports for ROCU and Regional Liaisons,
 - supervise the evaluation, monitoring and reporting aspects of the project.
5. The Steering Committee meeting will be presided over by the CCAD representative, and in his absence, by the UNDP representative, who should jointly issue a tentative agenda to all members at least ten days prior to the meeting. The ROCU Coordinator will be responsible for secretarial duties of the Steering Committee.

CONSULTATIVE GROUP

1. The Consultative Group (CG) will consist of 10 people representing all principal regional stakeholder groups, including indigenous groups, producers' associations, conservation NGOs, development NGOs, the private sector, and cooperating agencies associated with rural development and the MBC Program.
2. The ROCU Coordinator will identify members during the first few months of the project, preferably from the following agencies and organizations:

CICA, CICAFOC, ASOCODE, Afro-Antillean Groups
 IUCN, WWF, TNC, CI, WCS
 EU, USAID, SIDA, DANIDA
 FEMICA, FEDEPRICAP, Cooperative Organizations, CICAD,
 Regional Water Networks, Climate Change groups.
 Communicators (Environmental Journalist Networks, Radio networks, etc).

3. The members of the Consultative Group will review the annual operational plan and offer suggestions regarding priorities, potential collaboration and strategic activities. The CG will meet to review, discuss and provide recommendations for the formulation of Strategic Plans, the development and implementation of the resource mobilization strategy, the development and implementation of communications, public awareness and education activities, the development of region-wide strategies for component/thematic parts of the MBC (PAs, corridors, ecological restoration), proposals for economic instruments, the identification of monitoring and evaluation indicators and criteria, and other activities, as appropriate.

4. The Presidency of the Consulting Group will be on a rotating basis and the project will provide secretarial support to record meeting proceedings.

TECHNICAL ADVISORY GROUP

1. The Technical Advisory Group (TAG) will consist of 7 members, primarily national and international experts with experience in the components and activities of the project.

2. The ROCU Coordinator will identify members during the first three months of project initiation. TAG may be comprised of experts from an appropriate mix of regional and extra-regional institutions, including the following:

CATIE, IICA, INCAE, The University for Peace, Flacso,
 CSUCA and National Universities, Zamorano, The Southern Border School,
 CONADIBIOS, The Herbalists' Network, The Biodiversity Information Network,
 Extra-regional experts and institutions, to be determined.

3. The members of TAG will convene once a year to review, discuss and provide recommendations on annual operational plans, identification of strategic priorities, the development of Strategic Plans, and identification of resource mobilization and collaboration opportunities. At the request of the ROCU Coordinator or the Project Steering Committee, they will assist in support missions, conflict resolution, and review of documents, agreements or policy proposals.

4. A member of the TAG will preside at meetings on a rotating basis, with the ROCU Coordinator providing secretarial services. TAG meetings will be scheduled to occur around annual meetings of the Mesoamerican Biodiversity Forum as a means to facilitate attendance.

ANNEX 12

LIST OF KEY CONTACTS

CCAD

President (until June 1999)
Miguel Araujo

Minister of the Environment, Republic of El Salvador
Alameda Roosevelt and 55 Ave. Nte. Torre El Salvador
Edif. IPSFA 3rd Level. San Salvador, El Salvador
Tel. 503 260 8900 maraujo@marn.gob.sv

Environmental Director SICA
Mauricio Castro

Bldv. Orden de Malta #470, Urban. Sta. Elena
Antiguo Cuscatlan, El Salvador
Tel. 503 289 6131 mcastro@sicanet.org.sv

UNDP

GEF Regional Coordinator for Latin America and the Caribbean

Nick Remple Tel. 212 9065426 nick.remple@undp.org

Program Officer, UNDP Guatemala

Edgar Pineda Tel. 502 337 0468 epineda@pnud.org.gt

Consultant

Juan Carlos Godoy Tel. 502 360 5426 jcgodoy@citel.com.gt

UNEP

Ricardo Sanchez

Bldv. de los Virreyes #1155, Col. Lomas Virreyes
11000 Mexico, D.F. Mexico
Tel. 525 202 6913

Program Official

Rafael Rodriguez Capetillo Tel. 525 202 4841 capetillo@latino.rolac.unep.mx

World Bank

Natural Resources Economist
Luis Constantino

Tel. 202 473 9698 lconstantino@worldbank.org

RUTA III

James Smyle

Tel. 506 255 4011 rutaiii@sol.racsa.co.cr

GTZ

Forestry Advisor
R. Alexander Kastl

Tel. 506 282 9300 coseform@sol.racsa.co.cr

Proarca Capas

Jan Laarman
Jose Courrau
Jorge Rodriguez

Tel.502 331 3373
Tel.502 334 3811
Tel.506 240 8140

jlaarman@gold.guate.net
jcourrau@gold.guate.net
jrodrig@sol.racsa.co.cr

Proarca Costas

Nestor Windevoxhel

Tel.502 367 0415

tnc@guate.net

PFA

Roberto Araquistain
Ramon Alvarado

Tel.507 263 3966
Tel.507 236 8186

pfa@sinfo.net
ralved@sinfo.net

TNC

Program Director
Andreas Lehnhoff

Tel.502 368 2085

alehnhoff@guate.net

IUCN

Officer for Forests and Protected Areas
Alberto Salas

Tel.506 236 2733

alberto.salas@orma.iucn.org

FTTP-FAO

Carlos Brenes

Tel.506 280 2441

cbrenes@sol.racsa.co.cr

WWF

Program Director
Miguel Cifuentes A.
Matthew Perl

Tel.506 556 1421
Tel.506 556 1383

mcifuent@catie.ac.cr
mperl@catie.ac.cr

WRI

Central America Officer
Elsa Chang

Tel.202 662 3495

elsac@wri.org

CICA

Executive Director
Williams Barrigon

Tel.502 363 2948

cica@infovia.com.gt

CICAFOC

Regional Facilitator
Alberto Chinchilla

Tel.506 223 1911

cicafoc@sol.racsa.co.cr

CCAP

Erasmó Ballester
Luis Rojas
Milton Camacho
Richard Belisle
Algel Barahona
Alfonso Sermeño
Juventino Galvez
Hector Ruiz B.

Tel.507 232 7228
Tel.506 283 7654
Tel.505 223 1113
Tel.501 822 082
Tel.504 223 4346
Tel.503 260 8900
Tel.502 332 0466
Tel.525 624 3321

dirapsot@ns.inrenare.stri.si.edu
lrojas@ns.minae.go.cr
cbagef@ibw.co.ni
renvic@btl.net
dapus@sdnhon.org.hn
medioambiente@marn.gob.sv
seconap@guate.net
hlruiz@chajul.ine.gob.mx

ANNEX 13
INDICATIVE WORK PLAN

Immediate Objectives, Outputs, Activities	Responsible group	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1. PROGRAM COORDINATION AND STRATEGIC PLANNING							
Output 1.1	ROCU, CO						
Selection and Hiring of Personnel for ROCU		X					
Training workshops for ROCU personnel		X	X				
Establishment of ROCU infrastructure		X	X				
Develop administrative capacities of ROCU		X					
Develop coordinating and communication mechanisms with national offices		X	X	X	X	X	X
Formulation procedures for implementation and monitoring of subcontracts		X	X	X	X	X	X
Evaluation strategy and indicators to assess performance of ROCU and national MBC offices.		X					
Output 1.2	ROCU						
Develop and agree on TAG TOR		X					
Identify TAG participants		X					
Appoint and establish TAG		X					
Output 1.3	ROCU						
Draft and agree on CG TOR		X					
Identification CG participants		X					
Establishment of CG		X					
Output 1.4	ROCU,CO						
Development/agreement SC TOR		X					
Select SC representatives.		X					
Schedule of Programme meetings and general operational modalities.		X					
Agenda for first meeting of SC.		X					
Output 1.5	ROCU, CO						
Diagnostic of threats and conflicts		X		X		X	
Assessment land-use options for MBC			X		X		X

Immediate Objectives, Outputs, Activities	Responsible group	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Conflict resolution mechanisms		X	X	X	X	X	X
Monitoring of conflictive situations/analysis		X		X		X	
Output 1.6	ROCU,CO						
Methodology establishment		X		X		X	
Thematic and geographic priority analysis		X		X		X	
Participatory strategic planning		X		X		X	
Publication and distribution of Strategic Plans			X		X		X
Promote adoption of Plans		X	X	X	X	X	X
Monitoring and evaluation strategy/indicators			X	X	X	X	X
Evaluation development and implementation of Plans				X			X
Output 1.7	ROCU,SB						
Development of regional strategy for biodiversity conservation			X				
Supporting proper functioning of CONABIOS		X	X	X	X	X	X
Development of strategy for biodiversity conservation in freshwater bodies			X				
Development of mesoamerican strategy for ecological restoration of fragile ecosystems.				X			
Communication and coordinated management support for border protected areas			X		X		
Promotion of the agenda of protected areas and management of private reserves.		X	X	X	X	X	X
2. RESOURCE MOBILIZATION							
Output 2.1	ROCU,SB						
Identification priorities and stakeholder groups		X					
Training-of-trainers program			X				
Program, implement and monitor T-of-T activities			X	X	X	X	
Review training evaluations, adapt lessons learned				X	X	X	X
Output 2.2	ROCU,SB,CO						
Development materials/methods for trainers.		X					
Design and reproduce materials.		X					
Disseminate materials to groups through trainers.			X		X		
Monitor and evaluate use of materials by groups.				X	X	X	X
Output 2.3	ROCU						
Identify existing expert rosters in local, regional, extra-regional organizations.		X	X	X	X	X	X

Immediate Objectives, Outputs, Activities	Responsible group	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Integrate relevant expertise from existing rosters and organize by MBC-appropriate themes.		X	X	X	X	X	X
Incorporate the expert roster into CCAD's Corre-net.		X	X	X	X	X	X
Publicize the expert roster through stakeholder groups.		X	X	X	X	X	X
Manage the roster, including periodic updating, surveys of client satisfaction, analysis of demand and supply of expertise.		X	X	X	X	X	X
Evaluate the expert roster.					X	X	X
Output 2.4							
Design the database.		X					
Record national and regional initiatives supporting the MBC.		X	X	X	X	X	X
Map external cooperation within the MBC in conservation and sustainable uses.		X	X	X	X	X	X
Identify geographic and thematic gaps, as well as specific opportunities for funding.			X	X	X	X	X
Incorporate database into Corre-net.			X	X	X	X	X
Output 2.5							
Identification economic instruments/financial mechanisms		X	X				
"Map" experiences with economic instruments/financial mechanisms.		X	X				
Lessons learned re economic instruments/financial mechanisms.		X	X	X			
Identify strategic areas for identification and application of potential economic instruments.			X	X			
Portfolio of most viable economic instruments and options.			X	X			
Design database.			X	X	X		
Incorporate into Corre-net.				X	X		
Publish and disseminate report.					X	X	X
Output 2.6							
Principal financing needs of MBC consolidation.		X	X	X		X	
Report on MBC consolidation financing requirements/opportunities.		X	X	X	X		X
Identify groups and decision-makers to participate in multisectoral dialogues/seminars.		X	X	X	X	X	X
Dialogues/seminars for economic instruments.			X	X	X	X	X
Monitor application of knowledge acquired.				X	X	X	X
Output 2.7							
Lessons learned from mobilization of resources for conservation in mesoamerica.		X		X		X	
Define priorities for funding and develop long-term resource strategy.		X	X	X	X	X	X
Develop resource mobilization plan		X	X	X	X	X	X
3. INFORMATION AND MONITORING							
Output 3.1							
	ROCU,SB,CO						

Immediate Objectives, Outputs, Activities	Responsible group	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design Corre-net strategy plan for progressive construction.		X					
Design and installation and maintenance of MBC Webpage.		X					
Purchase of supplementary equipment for MBC Web site.		X					
Review, improve, maintain MBC Web site.							X
Design, prepare, disseminate the bimonthly bulletin about the MBC by email and place on the Web site.		X	X	X	X	X	X
Output 3.2	ROCU,CO						
Design technical network/ establish national technical committees.		X	X				
Electronic links between organizations generating information and regional and national hubs.		X	X	X	X	X	X
Strengthen national hubs, identify information processes, train managers of databases.		X	X	X	X	X	X
Catalogue of biodiversity and MBC information specific to each county, linked to regional hub and its databases.		X	X		X		
Advertise/disseminate regional catalogue on Corre-net.			X				X
Output 3.3	ROCU,SB						
Experiences related to protected areas, buffer zone management and sustainable use of natural resources.		X	X	X	X	X	X
Experiences with agroforestry systems.		X	X	X	X	X	X
Experiences in water management, energy development and effects on biodiversity conservation.		X	X	X	X	X	X
Lessons learned/ implications for programming for MBC consolidation.			X	X	X	X	X
Incorporate material into Corre-net.			X	X	X	X	X
Output 3.4	ROCU,SB						
Information Strategy.		X					
Design dissemination products		X	X	X	X	X	X
Production dissemination material, including <i>Biodiversity/ Environmental Atlas of Mesoamerica</i>		X	X				
Develop, update and publish a <i>Report on the State of Biodiversity in Mesoamerica</i> .			X				
Output 3.5	ROCU,CO,SB						
Identify users, analyze demand for tools, initial identification of contents tool kit.		X					
Design set of "tools", including their structure.			X				
Develop "tools".			X	X	X		
Integrate into Corre-net (web page and email), disseminate to key institutions and groups.			X	X	X	X	X
Output 3.6	ROCU						
Promote connectivity to Corre-net and the MesoBiodiversity Information Network.			X	X	X	X	X
Identify partners requiring technical support and training.			X	X	X	X	X
Provide key equipment to regional stakeholder groups and institutions, identify extra-budgetary funding			X				X
for purchase equipment for key stakeholder groups.							
Provide technical training to regional groups.			X	X	X	X	X

Immediate Objectives, Outputs, Activities	Responsible group	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Output 3.7	ROCU,SB						
Design criteria and indicators.							
National/regional consultations re criteria/indicators.		X					
Identification priority areas for monitoring.			X				
Test criteria/ indicators on pilot basis.				X	X	X	
Evaluate efficiency of criteria and indicators.					X		X
Output 3.8	ROCU,SB						
Design MBC-GIS.		X					
Agreements with NOAA, NASA to monitor land-use changes.		X	X	X			
Review/update vegetation, ecoregion, and waterbody maps.			X	X			
Prepare maps/related graphics identifying MBC-friendly production systems within Corridor.			X	X	X	X	
Operationalization of regional program to detect land-use changes.				X	X	X	X
Provision of information to early warning programmes for fires and other threats.				X	X	X	X
Introduction of information on threats and changes in land-use in Corre-net.			X	X	X	X	X
Output 3.9	SB,CO						
Identify critical areas of the MBC for local community monitoring of land-use changes.		X		X		X	
Select number of communities and organizations in critical areas.		X	X	X	X	X	
Undertake participatory analysis of monitoring objectives/needs.			X		X		X
Analyze criteria and indicators for stakeholder monitoring.				X		X	X
Formulate agreements for community monitoring of the MBC.			X	X	X	X	X
Establish reporting, dissemination and communication channels.		X	X	X			
Pilot application of monitoring system in some pilot areas.			X	X	X	X	X
4. CAPACITY BUILDING AND INTRAREGIONAL EXCHANGES							
Output 4.1	ROCU,SB,CO						
MBC education priorities, strategy and plan.		X				X	
Training-of-trainers, pedagogical methods, regional environmental agreements, policy frameworks, etc.		X	X	X	X	X	X
Output 4.2	ROCU,SB,CO						
Identify/prioritize topics to be addressed within regional stakeholder groups.		X					
Identify training providers/centers of expertise for priority topics; assess capacities and costs related to technical training in specific fields.		X	X				
Negotiate agreements for training of trainers.			X				
Effect training of trainers.			X	X			
Monitor and evaluate training-of-trainers programme.				X	X		

Immediate Objectives, Outputs, Activities	Responsible Group	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Promote associations b/w regional universities, institutions and networks to form MBC training network.						X	X
Establish MBC training network.							
Output 4.3	ROCU,CO						
Develop teaching material for trainers		X	X				
Develop teaching material regarding best practices		X	X				
Develop teaching material regarding biodiversity conservation and co-management		X					
Translate teaching material into indigenous languages.			X				
Output 4.4	ROCU,SB						
Identify experts in MBC-related fields.		X					
Define criteria to maintain basic standard and quality of the roster.		X					
Develop a roster of experts by field.		X	X				
Include roster and information on Corre-net.		X	X				
Output 4.5	ROCU,SB						
Develop exchange strategy for region.		X					
Elaborate and monitor biannual plans of regional exchanges		X				X	
Output 4.6	ROCU,CO						
Develop counterpart exchanges for congressmen and Municipal officials.		X			X		X
Develop counterpart exchanges for agrarian producers.		X		X		X	
Develop counterpart exchanges for forestry officials and forest producers.		X	X		X		
Develop counterpart exchanges for protected areas officials.		X	X		X		
Develop exchanges for indigenous leaders.				X		X	X
Output 4.7	ROCU,CO						
Systematize regional exchanges.			X	X		X	
Evaluate regional exchanges and sub-programme.			X	X	X	X	
Evaluate adoption of best practices based on participation in exchanges.					X	X	X
Output 4.8	ROCU,CO						
Establish Task Force for incorporation of biodiversity material into school curricula.		X					
Review education programs from primary and secondary schools in the eight countries.		X					
Prepare draft proposal to modify education programmes.			X				
Undertake extensive consultations on proposal.			X				
Prepare final proposals for modification of education programs to include concepts, examples of MBC.				X			

Immediate Objectives, Outputs, Activities		Responsible group	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Output 4.9		ROCU						
Develop teaching guides, aids other material regarding biodiversity, MBC.				X	X	X		
Incorporate biodiversity issues and themes into current texts.				X	X			
Identify funding needs & potential public & private sponsors to cover publication of materials.				X	X	X		
Incorporate educational material, as appropriate, into Corre-net.							X	X
Output 4.10		ROCU,SB						
Identification of training needs, opportunities in institutions for teacher development.			X					
Production of material to be used in teacher development institutions and curricula.				X				
Training of teachers in biodiversity and MBC-related issues.				X	X			
Establishment of Ministerial Forum on Education and the MBC.					X	X	X	X
5. PARTICIPATION, PUBLIC AWARENESS AND EXPANSION								
Output 5.1		ROCU,CO,SB						
Participatory design of regional awareness raising strategy, including implementation & resource requirements.			X	X				
Output 5.2		ROCU,CO						
Roster of media personalities, journalists and organizations.			X					
Six regional workshops to inform objectives/achievements of MBC.			X	X	X	X	X	X
Develop mailing/contact list re dissemination of MBC project reports.			X	X	X	X	X	
Training of Central American Environmental Journalists Network.			X	X	X	X	X	X
Develop sub-strategy for the Central American Radio Network.			X	X	X	X	X	X
Output 5.3		ROCU,SB						
Identify potential private or public sector sponsors to cost-share media campaign.				X	X	X		
Identify key themes or messages to be broadcast.					X	X		
Develop regional sub-strategy for production/dissemination of MBC material on public and private TV channels.					X	X		
and produce eight 5-minute programs about MBC for regional (Spanish) and international (English) broadcasting.						X		
Develop six 30-second "jingles" about MBC for at least 5 countries of the region.						X	X	X
Output 5.4		ROCU						
Minimum set of criteria for establishment of national commissions or MBC support groups.								
Terms of Reference for national MBC commissions, especially in reference to interactions with regional Programme.								

Immediate Objectives, Outputs, Activities	Responsible group	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Foster establishment of national MBC commissions.			X	X			
Ensure communications channels through Corre-net.		X	X	X	X	X	X
Schedule and prepare regional meetings with Commission representatives to ensure coordination of Programme activities.		X	X	X	X	X	X
Output 5.5							
Series of meetings with regional organizations of civil society	ROCU	X	X	X	X	X	X
Output 5.6							
Regional Forum on Mesoamerican Biodiversity using electronic media and Corre-net.	ROCU,CO						
Implement annual or biannual Mesoamerican Presidents Meetings on consolidation of MBC.		X	X	X	X	X	X
Implement four multi-ministerial meetings to discuss sustainable development challenges and opportunities.			X		X	X	X
Establish specific forums regarding management of shared ecosystems including mountains, forests and water bodies of importance to the MBC.			X	X			
Output 5.7							
Identify strategic MBC themes for further discussion and analysis.	ROCU,CO	X					
Form multisectoral thematic working groups.			X				
Discuss key issues and produce regional reports for Regional Forum.			X	X	X		
Organize group to provide recommendations regarding follow-up to CBD and application to the MBC.		X	X	X	X	X	X
Organize group to provide recommendations on in-situ conservation of biodiversity within the Convention on Wetlands of International Importance (Ramsar).		X	X	X	X	X	X
Organize special thematic group to discuss and provide recommendations on biodiversity conservation opportunities within free-trade negotiations in Mesoamerica.		X	X	X	X	X	X
Design, prepare, publish and disseminate a report on <i>The State of Mesoamerican Biodiversity and the status of the MBC</i> .			X	X	X	X	X
Integrate various findings and recommendations into Corre-net.					X	X	X
6. POLICY HARMONIZATION							
Output 6.1							
Analyze regional priorities for updating policies related to the establishment of the MBC.	ROCU,CO	X			X		
Develop proposals on policies and legislation related to Protected Areas & Indigenous Peoples in MBC.			X	X			
Develop a policy formulation program on territorial planning, access to land and the MBC.		X	X				
Develop a proposal for a regional policy on Clean Production Systems as they affect biodiversity.			X				
Develop other policies, as appropriate, based on analyses and recommendations of thematic multisectoral and other groups.			X	X	X	X	X

Immediate Objectives, Outputs, Activities	Responsible group	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
and other groups.							
Integrate findings into Corre-net.					X	X	X
Output 6.2	ROCU,CO						
Participatory development of protocols to Central American Conventions on wildlife and biodiversity.		X	X				
Regional exchanges of expertise, parliamentarians, other stakeholders on national laws for conservation.			X	X	X	X	X
Regional exchanges of expertise, parliamentarians, policy makers and stakeholders re development national laws for environmental services.			X	X	X	X	X
Output 6.3	ROCU,CO						
Define criteria and policies to develop Forest Certification for biodiversity conservation.		X	X	X			
Define criteria on the design, enabling legislation, implementation of biological corridors at local level.			X	X	X		
Define criteria for regional policies on Efficiency and Effectiveness Assessments in PA Management.			X	X	X	X	
Develop other criteria and policies, as a result of other project or non-project activities.				X	X	X	X
Integrate this information into Corre-net.			X	X	X	X	X
Output 6.4	ROCU,CO						
Establish permanent communication between CCAD, SICA and regional institutes for policies nat res and environment.		X	X	X	X	X	X
Design and implement workshops with selected stakeholder representatives and institutions for policies for natural resources and environment.		X	X	X	X	X	X
Design/implement workshops with private sector representatives regarding regional economic development and the MBC.		X	X	X	X	X	X
Design/implement regional workshops for policy analysis with CICAD lawmakers.			X		X		X
Design/implement workshops with other stakeholder groups, as opportunities arise.				X	X	X	X
Output 6.5	ROCU,CO						
Organize international meetings regarding the MBC			X		X		X
Develop meetings to increase efficiency in the management of shared watersheds, as well as cross-border biological corridors.				X		X	
Design and develop meetings with religious leaders at a regional level to promote biodiversity conservation.		X			X		
Organize workshops to assess options and policies regarding regional positions in international forums		X	X	X	X	X	X
Output 6.6	ROCU,CO						
Develop information centers on biodiversity legislation and incentives with strong links to CCAD, CICAD, judicial entities, and Central American private organizations.		X	X				
Undertake widespread dissemination of Mesoamerican Environmental Legislation related to the MBC.		X	X	X	X	X	X
Provide technical assistance for the correct application of biodiversity-related law and incentives in			X	X	X	X	X

Immediate Objectives, Outputs, Activities		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Mesoamerica. Undertake training of enforcement personnel on application processes of environmental law in Mesoamerica (procedural law). Integrate Mesoamerican legislation and information about incentives into Corre-net.	Responsible group						
			X	X	X	X	X
			X	X	X	X	X

Notes:

ROCU

CO

SB

TAG

SC

Regional Operations Coordinating Unit

Short-term Consultants

Subcontracts

Technical Advisory Group

Steering Committee

ANNEX 14

COMPLETED, ON-GOING AND PLANNED GEF AND NON-GEF INITIATIVES ASSOCIATED WITH THE MBC

Table 1: Main Regional and Binational Projects Associated with the MBC that are Near Completion

Cooperating Agency	Executing Agency	Amount (\$)	Status	Starting-End Date	Purpose and Objectives
<p>"Strengthening the C.A. Legal System Project"</p> <p>IDB- Netherlands Government and counterpart of Central American countries</p>	CCAD-CEDARENA	\$500,000	Under implementation	March 1996-August 1997	Elaboration of laws related to the regional environment and ecology. Training of judges, prosecutors and other government officers involved in issues of the environment and sustainable use. Strengthening of NGOs about environmental law in the region. Preparation of a feasibility study to balance environmental legislation in C.A.
<p>"Establishment of the Regional Network of Organizations of Environmental Law RODA"</p> <p>McArthur Foundation/Ford Foundation/AID. North-South Center</p>	CEDARENA CR/IDEADS/ Guat./Law School, University of Florida, USA.	\$500,000	Under implementation	1992-1997	1. Establishment of a regional network of organizations of environmental law -RODA-. 2. Establishment of the CCAD Program of Environmental Legislation. 3. Elaboration of the legislation of protected areas. 4. Collection of laws and policies related to the issue sea turtles in Costa Rica, Nicaragua and Panama. 5. Periodic elaboration of the Mesoamerican Bulletin of Environmental Law.
<p>"Training of Decision-makers". Several international agencies</p>	Organización de Estudios Tropicales (OET)	\$369,600	Under implementation	1990-1997	Training of decision-makers in Central America in relation to environmental issues.
<p>"Agrarian Frontier Project"</p> <p>European Economic Community</p>	Government Counterpart (NGO). FUNDESCA.		Under implementation	1996-1999	Mechanisms that will permit local people to develop natural resources and to protect them. Improve exchange of information. Contribute to external cooperation actions, management of natural resources. Establishment of a regional network of experiences in the pilot area.
<p>"Environmental Management and Sustainable Development of the San Juan River Basin".</p> <p>OEA/UNEP</p>	OEA/UNEP / MINAE CR, MARENA Nicaragua	\$721,000	Under implementation	June 1995...	Watershed management, natural areas and reserves. Preparation of environment and sustainable development action plan.
<p>"Regional Forest Program for Central America (PROCAFOR)". FINNIDA.</p>	The seven countries / CATIE	Amount Second Phase 28.4 millions Finnish Marks	Under implementation	1992-1998	Contribution to the integration of forest, agroforestry and rural sustainable development actions. Support to communities in production projects of rural development. Support to forest institutions and to technical and administrative organizations.

Cooperating Agency	Executing Agency	Amount (\$)	Status	Starting-End Date	Purpose and Objectives
"Criteria and Indicators for the Conservation and Sustainable Management of the Forest in C.A." FAO.	CCAD/CCAB/ AP/FAO	\$243,000	Under implementa- -tion	1996- (10 months)	Proposed preparation of the sustainable forest regulation in C.A. (regional and national analysis).
Regional Environment Project (PROARCA) Coasts/protected areas. USAID.	TNC/WWF, Rhode Island University and Biodiversity program CCAD.	Coasts: amount has not been specified. Protected Areas: \$2.6 millions (2 years)	Under implementa- -tion	1996-1999	Management of coastal ecosystems and use of natural resources. Consolidation and strengthening of the System of Protected Areas in C.A.
Project for the Sustainable Development of the Border Region Costa Rica-Panama OEA	Ministerio de Planificación, Panamá (MIPPE), Ministerio de Planificación, Costa Rica (MIDEPLAN)	\$339,321	Under implementa- -tion	1996-1998 (it can be extended)	Support to binational environmental actions. Institutional strengthening. Encouragement of community participation.
AMISCONDE Project McDonald's Corporation/ Clemson University/ Texas University	CCT- Costa Rica, Fundación para el Desarrollo, Panamá.	\$600,000 per year for Costa Rica/ Panama	Under implementa- -tion	1993-1998	Decrease in the loss of natural resources in communities around the RBA. Conservation of basins and environmental education
Canada Government	CCAD Executive Secretary	1.5 million Canadian Dollars	Under implementa- -tion	1996-1999	Strengthening National Councils of Sustainable Development. Support to the implementation of the agenda according to ALIDES commitments
Strengthening Environmental Management in Central America	CCAD Executive Secretary	\$150,000	Under implementa- -tion	3/96-12/96	Development of a consultation process with authorities from public and private sector. Environmental Education in C.A. and training in environmental management.
"Regional C.A. Promotion of the Environment" IDB/GEF/Fomento Multilateral de Inversiones (FOMIN).	CCAD-IDB	\$15,000,000 Under negotiation \$25,000,000	1 st phase 1997	1997-	Sustainable Development in C.A. (Conservation of biodiversity/depletion of the ozone layer/ protection of international waters/ climate change.)
"C.A. Forest Policy Study" FAO, CIFOR, IICA, GTZ	FAO-CIFOR-IICA-GTZ	\$387,000	Under implementa- -tion	10 months (1995-1996)	Analysis of the present state of restrictions of forest policies. Review of policies per sector and forest, regional and political identification.

Cooperating Agency	Executing Agency	Amount (\$)	Status	Starting-End Date	Purpose and Objectives
<p>"Support to the Management of Natural Forests in C.A."</p> <p>IUCN/PAGEBOCA</p> <p>Government of the German Republic BMZ</p>	IUCN/ORMA	\$980,000	Under implementation	1995-1996	Establishment of mechanisms of national and regional cooperation between local groups related to forest resources. Strengthening of the organization, technology and culture of the organizations related to forest resources. Contribution to the preparation of public policies related to sustainable development in the region through experiences of sustainable use in forests.
<p>"Forests, Trees and Rural Communities"</p> <p>FAO</p>	FAO	\$182,000	Under implementation Phase II	1995-	Self-management and rural participatory development in forestry. Development of management techniques, rural industrialization of forestry.
<p>"Fonseca gulf"</p> <p>DANIDA</p>	DANIDA	\$2,700,000	Under negotiation	3 years	Protection of natural resources through projects of sustainable development.
<p>"Regional Border Development Plan (TRIFINIO), El Salvador- Guatemala- Honduras.</p> <p>OEA-CEE- Finnish and Spanish Government</p> <p>UNDP/PEC</p>	OEA-IICA	<p>\$2,390,000</p> <p>For regional context the required amount is \$162 million.</p>	Under implementation	1986-1996	Development of project in the buffer zones in the 3 countries around the Macizo Montecristo of high ecological value due to its biodiversity (600,000 ha). Agroforestry development, conservation of natural resources, reforestation.
<p>Sustainable Development in the Border between Guatemala and Honduras (Honduras Gulf)</p> <p>OEA</p>	OEA-IICA	\$721,000 (BD component)	Under implementation	1995-1996	Management and conservation of natural resources in watersheds, natural areas and reserves, sustainable agroforestry development, ecotourism, conservation of energy, integration of transportation and port infrastructure with social development.
<p>"Regulation of the Basin of the River Nentón. (Guatemala-Mexico)"</p> <p>OEA-IICA</p>	OEA-IICA and Governments of Guatemala and Mexico	\$534,000	Under implementation	1995-1996	Sustainable agroforestry development, reforestation, management of parks and reserves.
<p>"Regulation of the Reserve in the Border Region between Belize, Guatemala, and Mexico)".</p> <p>OEA-IICA</p>	OEA-IICA and Governments of Belize, Guatemala and Mexico	\$500,000	Under implementation	1995-1996	Management of natural resources and biodiversity; scientific investigation; environmental education; recovery of cultural values; ecotourism, institutional strengthening.

Source: Documents from CCAD, IUCN, IDB, OEA, CI, CEDARENA, CCT, FAO, and PROARCA; Interviews with project leaders.

Table 2A: On-going Non-GEF Initiatives Associated with the MBC

Regional	Agrarian Frontier Program Proarca (Capas and Costas) FTTP Capacity 21: Trade and Environment Procafor Endangered Parks Conservation Program Maya Forest Global Forests Program Economic Value of Biodiversity San Juan River Fonseca Gulf Windows of Sustainability Forest Development	EU USAID FAO UNDP FINNIDA TNC WWF MacArthur UNDP UNEP-IUCN UNEP-OEA Danida-IUCN IICA-GTZ CATIE-GTZ
Panama	Rural Poverty Canal Protected Areas Bocas del Toro Agroforestry Ngobe-Baru Cerro Hoya Filo del Tallo-Darien Darien Environment Plan Management of Cativales Coiba	WB-MIDA USAID, Natura Proarca-Costas-USAID GTZ GTZ PFA-EU IDB ITTO Spanish Cooperation
Costa Rica	FTTP-FAO Talamanca Coseforma Effective Management of Protected Areas	Netherlands PFA-EU GTZ WWF-IUCN
Nicaragua	Bosawas Indio-Maiz Reserve Siapaz POSAF Tropisec Miskitos Cays Biodiversity and Protected Areas Guatuzos	GTZ-Marena GTZ-Marena Danida-Fund. del Rio IDB-Marena EU Proarca-Costas-USAID FINNIDA Spanish Cooperation
Honduras	Broadleaf Forests Prolancho Platano River Cajon Bay Islands PAR Celaque Procafor Honduran Forest Agenda	ACDI EU GTZ-KfW IDB IDB WB-UNDP GTZ Finnida UNDP-GTZ

El Salvador

PAES-Greenproject
 Fonseca Gulf
 El Imposible
 Trifinio
 Biodiversity
 Prochalate
 IICA-Laderas
 Lempa River Basin
 Joint Implementation
 Nancuchiname
 El Jocotal

USAID
 UICN
 Salvanatura
 EU
 British Museum
 EU
 Netherlands
 IDB
 UNDP
 PFA
 Spanish Cooperation

Guatemala

Maya Biosphere Reserve
 PMS-Peten
 PLV-Verapaces
 Cuchumatanes
 Proforests- West
 Lachua
 Pacific Mangroves
 Proarca-Manabique
 Sustainable Development in Peten

USAID-CI-TNC-CONAP
 GTZ-MAG
 GTZ-MAG
 UNDP-Netherlands
 Cosude-Helvetas-CONAP
 UICN-Netherlands-INAB
 UICN-INAB
 Proarca-Costas-USAID
 IDB-SEGEPLAN

Belize

Programme for Belize
 Solid Wastes
 BAS

Several cooperation agencies
 IDB - Japanese Funds
 European Union

Mexico

Communal Forest Management
 PAF-Mexico

GTZ
 FAO

Table 2B: On-going GEF Initiatives Associated with the MBC

Regional		
	FOCADES	UNDP
	Conservation of the Mesoamerican Reef Initiative	WB
Panama		
	Panama Biological Corridor	WB
	Biodiversity Conservation in Darien	UNDP
Costa Rica		
	Small Grants Programme	UNDP
	Biodiversity Resources INBIO	WB
	Conservation of La Amistad-Osa	UNDP
Nicaragua		
	Biological Corridor of the Atlantic	WB
Honduras		
	Biodiversity and Protected Areas	UNDP-WB
El Salvador		
	Organic/Shade Coffee	WB
Guatemala		
	Small Grants Programme	UNDP
	Protection of Laguna del Tigre, Petén	WB
	Conservation Unit of the Plateau	WB
	RECOSMO (Sarstun-Motagua)	UNDP
Belize		
	Small Grants Programme	UNDP
	Biological Corridor in Northern Belize	WB
	Management of Biodiverse Coastal Resources	UNDP
	Southern Biological Corridor	UNDP
Mexico		
	Small Grants Programme	UNDP
	Mesoamerican Biological Corridor	WB

Table 2B. On-going CEF Initiatives Associated with the MIB

Regional	
FOCADDES	UNDP
Conservation of the Mesoamerican Reef Initiative	WB
Panama	
Panama Biological Corridor	WB
Biodiversity Conservation in Panama	UNDP
Costa Rica	
Small Grants Programme	UNDP
Biodiversity Research (BIO)	WB
Conservation of La Amistad Area	UNDP
Nicaragua	
Biological Corridor of the Atlantic	WB
Honduras	
Biodiversity and Protected Areas	UNDP-WB
El Salvador	
Organic Shade Coffee	WB
Guatemala	
Small Grants Programme	UNDP
Protection of Lagoon del Tigre Peten	WB
Conservation Unit of the Peten	WB
RECOSSMO (Reserva-Mosaguna)	UNDP
Belize	
Small Grants Programme	UNDP
Biological Corridor in Northern Belize	WB
Management of Biodiversity Coastal Resources	UNDP
Southern Biological Corridor	UNDP
Mexico	
Small Grants Programme	UNDP
Mesoamerican Biological Corridor	WB