

# **GLOBAL ENVIRONMENT FACILITY**

## **Regional**

### **Strategies for the Conservation and Sustainable Management of Natural Resources in the Amazon**

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#### **Project Document**

*This Project Document has been edited to facilitate public dissemination.  
The original is on file in the GEF Office at UNDP Headquarters in New York.*



## ABBREVIATIONS AND ACRONYMS

ACT	Amazon Cooperation Treaty
AIDESER	(ethnic federation in Peru)
APODESA	(Department of Regional Development Policy Support of the National Development Institute (INADE))
CDC	Conservation Data Centre (of The Nature Conservancy)
CEMAA	(Special Commission on the Amazon Environment)
CENARGEN	(National Genetics Resource Centre)
CIDA	Canadian International Development Agency
CIDOB	(ethnic federation in Bolivia)
CLIRSEN	(Centre for the Integrated Survey of Natural Resources through Remote Sensors)
COA	Corporacion Araracuara
COICA	Coordinadora de las Organizaciones Indígenas de la Cuenca Amazonica (Coordinating Agency of Indigenous Organizations in the Amazon Basin)
CONACYT	(National Council on Science and Technology)
CONFENIAE	(ethnic federation in Ecuador)
CUMAT	(Centre for Land Use)
EU	European Union
EMBRAPA	Empresa Brasileira de Pesquisa Agropecuaria
FAO	Food and Agriculture Organization of the United Nations
GAHEF	Guyana Agency for Health, Science, Education, Environment and Food Policy
GIS	Geographic Information System
GNRA	Guyana Natural Resources Agency
IAST	Institute of Applied Science and Technology
IBAMA	Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renovaveis
ICA	Instituto Colombiano Agropecuario
IDB	Inter-American Development Bank
IGAC	Instituto Geográfico "Agustín Codazzi"
IIAP	(Institute for Research in the Peruvian Amazon Region)
INADE	(National Development Institute)
INDERENA	Instituto Nacional de los Recursos Naturales Renovables y del Ambiente
INIAP	Instituto Nacional de Investigaciones Agropecuarias (National Agricultural Research Institute)
INPA	Instituto Nacional de Pesquisas da Amazonia
INPE	Instituto Nacional de Pesquisas Espaciais (National Institute for Space Research)
NGO	Non-governmental organization
ONERN	Oficina Nacional de Evaluación de Recursos Naturales
ONIC	(ethnic federation in Colombia)
PRONAREG	Programa Nacional de Regionalización (National Regionalization Programme)
PTS	Pro Tempore Secretariat (of the Amazon Cooperation Treaty)
SADA-Amazonas	(Autonomous Amazon Development Service)
SEGMA	(General Secretariat for the Environment)
SICA	(Computerized Environmental Information System)
SUDAM	Superintendencia do Desenvolvimento da Amazonia
TFA	(Federal Territory of Amazonas)
TUNIAC	(project in Brazil)
UNAP	Universidad Nacional de la Amazonía Peruana
UNI	(ethnic federation in Brazil)

# UNITED NATIONS DEVELOPMENT PROGRAMME

## GLOBAL ENVIRONMENT FACILITY

### Regional Project

**Title:** Regional Strategies for the Conservation and Sustainable Management of Natural Resources in the Amazon

**Number:** RLA/92/G31/G32/G33

**Duration:** Three years

**Project Site:** Amazon River Basin

**UNDP Sector:** Natural Resources

**Subsector:** Natural Resources/Amazon Region

**Implementing Agencies:** The governments of Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname and Venezuela (member countries of the Amazon Cooperation Treaty) and the United Nations Development Programme

**Estimated Starting Date:** April 1993

**Government Inputs:** US\$ 855,000 (in kind)

**UNDP/GEF Inputs:** US\$ 4.5 million

#### Brief Description:

This project aims to strengthen the capability to conserve, manage and develop natural resources in the Amazon basin. The project is comprised of three subprogrammes:

- Subprogramme 1: Ecological zoning and geographical monitoring of the Amazon Basin
- Subprogramme 2: Capacity building for conservation and sustainable utilization of biodiversity resources
- Subprogramme 3: Natural resource management in indigenous territories.

## **A. CONTEXT**

### **1. Description of subsector**

The Amazon region covers nearly 8 million square kilometres of tropical rainforest. The area contains some of the most diverse life forms on earth, presenting a richly abundant variety of plant and animal species.

Amazonia's biological diversity provides local inhabitants with food, housing material, fibres, oil, medicine, firewood and energy. Some 200,000 metric tonnes of fish are caught annually. Nearly a hundred species of forest flora have been domesticated. Some of these, such as the annatto, cocoa, papaya, peanut and pineapple, have spread to other tropical and subtropical zones of the world. Several other plant and animal species from the Amazon basin are potentially beneficial to humans, and are increasingly important worldwide for their use in pharmaceuticals, making the region a pre-eminent centre for genetic resources.

Agriculture, logging, and livestock ranching affect over 800,000 square kilometres (10 percent) of the Amazonian woodlands, of which nearly 40 percent remains productive, although with a low output per unit of area. The remaining 60 percent is abandoned because of reduced soil fertility, having become either a degraded area or secondary forest land.

About 90 percent of Amazonia remains largely unspoiled, with minimal human interference. Six percent of this region (400,000 square kilometres) has been protected by the Amazon basin countries through the creation of national parks and ecological reserves, and a further 20 percent through indigenous lands, national forests and forest reserves. The effort of the Amazon Cooperation Treaty countries in designating protected areas is notable: around 2 million square kilometres have been reserved, an area equivalent in size to the European Union (EU).

The remaining 75 percent, or 5.5 million square kilometres, of the "standing" Amazon is essentially pristine and may be considered a resource reserve for the future. The zoning of this area is necessary to understand the types of ecosystems and patterns of land use, and prevent the unchecked occupation of land and damage to ecosystems.

Amazonian biodiversity makes a notable contribution to the local, regional and world economy. The search for new and sustainable ways to manage and use this biodiversity for human benefit should also take into account the need for its protection. Policies should aim to:

- Improve production in settled areas through integrated systems and techniques that prevent the subsequent loss of natural resources, especially soils
- Recover abandoned and degraded areas through the management of secondary forests
- Upgrade the management of strictly protected areas with adequate financing
- Develop and enhance natural resource management systems for the sustainable development of the Amazon, and improve conditions for local inhabitants, especially forest dwellers (indigenous peoples and extraction workers)

- Support ecological and economic zoning of the unaffected areas of the region and prevent future problems, such as the unplanned occupation of land and resource use in the basin.

## **2. Regional strategies**

In 1978, Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname and Venezuela signed the Amazon Cooperation Treaty (ACT) to coordinate the integration of Amazonian development with environmental conservation and the sustainable management of natural resources. Six special commissions of the ACT address the main issues of sustainable development. These are the Commissions on: the Environment (with five approved programmes in biodiversity); Health; Indigenous Peoples' Affairs; Science and Technology; and Transport, Infrastructure and Communications.

An awareness of the issues of biodiversity, zoning, and indigenous peoples is increasing at the highest political levels. In February 1992, the Declaration of Manaus stressed that:

- "Immediate action is required to promote the conservation and sustainable use of biological diversity," for which "international cooperation is necessary."
- "Conservation of biological diversity must be of an integrated nature, emphasizing protected areas and those other areas identified by economic and ecological zoning. Regional cooperation is important in this respect, and a notable example is the ecological and economic zoning programme designed and developed under the Amazon Cooperation Treaty."
- "Within the context of improving quality of life for local and indigenous communities and population groups, it is necessary to acknowledge the value of traditional knowledge and practices in the promotion of sustainable development.... Therefore, it is necessary to guarantee them conditions for self-development, to support development of their own sustainable alternative means of production, to encourage national institutional mechanisms for promoting such development, and to protect and guarantee these communities' habitats."

## **3. Prior and ongoing assistance**

The eight signatories of the ACT, through their Pro Tempore Secretariat in Quito, Ecuador, requested the United Nations Development Programme (UNDP) for technical assistance to elaborate and implement the three subprogrammes of this project, in concert with other regional agencies such as the Inter-American Development Bank.

## **4. Institutional framework for subsector**

### **Subprogrammes 1 and 2**

The leading public and private institutions and programmes in each of the eight countries,

and their active roles related to ecological zoning and the sustainable use of biodiversity, are briefly outlined below.

## **Bolivia**

**General Secretariat for the Environment (SEGMA):** official coordinating agency at the highest political level. Ecological and economic zoning—top priorities in Bolivia—will be conducted to prepare the first ecological map of the country. SEGMA has organized a task force to develop a Geographic Information System (GIS) and meet the GIS's technical and informational requirements. SEGMA is also responsible for the work of the Special Commission on the Amazon Environment (CEMAA), and for biodiversity management.

**Environmental Action Plan:** semi-private institute under SEGMA; drafts policies for zoning and social participation in environmental planning, together with the Ecology Institute of San Andrés National University, the Centre for Land Use (CUMAT), the Conservation Data Centre (CDC-Bolivia, a non-governmental organization (NGO) with a database on plant and animal species), and the Environmental Defense League (LIDEMA) which is comprised of nearly twenty NGOs.

**National Environmental Fund (FONAMA):** channels funds for specific projects.

**Universidad Mayor de San Andrés in La Paz:** biochemical and phytochemical research. The National Herbarium, founded by the university's Instituto de Ecología, has 70,000 items and specializes in inventories of indigenous flora, and ethnobotany.

**National Science Academy of Bolivia:** maintains an Ecological Station in the Department of Beni.

**Cochabamba University's School of Pharmacy:** phytochemical research and traditional medicine.

**Centro de Investigaciones de Agricultura Tropical (CIAT) in Santa Cruz:** centre for research in agroforestry, biodiversity, and non-traditional crops and fruit-growing. It is funded by Japan, the Netherlands, the United Kingdom, and the Food and Agriculture Organization of the United Nations (FAO).

**Natural Medicine Programme (PROMENAT):** research in natural medicine.

## **Brazil**

**Institutional arrangements for zoning in Brazil** are complex. Several levels of interest and responsibility exist, ranging from federal and state-level institutions to interministerial commissions and national coordination projects. These institutions are a vital source of information, experience, and installed capacity for training in the region, and can provide the expertise required for this project.

**Secretariat for Strategic Affairs:** federal agency in charge of zoning; receives FAO assistance. Agencies at the national level are an important source of zoning expertise.

**Empresa Brasileira de Pesquisa Agropecuaria (EMBRAPA):** research on agriculture, forestry, genetic resources, soils and production systems. Special services include a National Genetics Resource Centre (CENARGEN) in Brasilia—the most advanced in the region—with stations in Belem and Manaus.

**Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renovaveis (IBAMA):** promotes agricultural research in the country. Activities extend to the management of forests and protected areas; the overseeing of forest-related industry; and the on-site conservation of genetic resources through its system of protected areas.

**Instituto Nacional de Pesquisas da Amazonia (INPA) in Manaus:** research in ecosystems, species and genetic resources.

**Emilio Goeldi Museum in Belem do Para:** zoological, botanical and ecosystems research.

**Superintendencia do Desenvolvimento da Amazonia (SUDAM) in Belem:** sustainable development in the Amazon, thematic mapping and cadastral records. Coordinates with EMBRAPA, INPA, the Emilio Goeldi Museum, private enterprises, and state-level governments.

**Instituto Nacional de Pesquisas Espaciais (INPE):** multispectral image processing and recognition; vegetational mapping and training; and monitoring of tropical forests in the Amazon region.

## **Colombia**

**Department of National Planning (DNP):** oversees national science and technology, and directs national policies and strategies affecting the Amazon basin in Colombia. Coordinates the Forestry Action Plan, and the Regional Planning and Development Corporations (CORPES) to implement regional development plans in the Orinoco and Amazon river basins.

**Instituto Nacional de los Recursos Naturales Renovables y del Ambiente (INDERENA):** regulates the development of natural resources.

**Instituto Geográfico "Augustin Codazzi" (IGAC):** national cartography, soil classification, cadastral information and geographical research. Provides basic information for development projects.

**Corporación Araracuara (COA):** private organization; research, sustainable social and economic development, and biodiversity and ecosystem conservation. Supports productive activity with minimal environmental impact on the Amazon region. Collaborates with national and international institutions.

**National Forest Research Corporation (CONIF):** forestry research and biodiversity management.

Instituto Colombiano Agropecuario (ICA): research in germplasm, plant improvement, biotechnology, insects and micro-organisms. It has a germplasm bank with 20,000 items, and pilot centres for seventeen species including cacao, cotton, fruit-bearing plants, maize, potatoes, tobacco and tropical tubers.

The Central University and its Natural Science Institute are responsible for the Colombian National Herbarium, which has one of the most important collections (close to 400,000 items) in the neotropical region.

Colombian Food Technology Institute: industrial processing of tropical fruits.

Puerto Rastrojo Foundation: NGO for sustainable management of Amazonian ecosystems.

## **Ecuador**

Although several institutions deal with biodiversity, little progress has been made in the use of these resources.

National Regionalization Programme (PRONAREG): zoning.

Centre for the Integrated Survey of Natural Resources through Remote Sensors (CLIRSEN): has direct access to satellite imagery (EOS, Systeme probatoire d'observation de la terre (SPOT) and LANDSAT) and the capacity to analyze this information. Also has its own satellite station in Cotopaxi province, 60 kilometres from Quito.

Consejo Nacional de Desarrollo (CONADE): national level coordinating agency for biodiversity management.

National Council on Science and Technology (CONACYT): national level coordinating agency for biodiversity management.

Under-Secretariat for Forestry and Renewable Natural Resources (SUFOREN), in the Ministry of Agriculture: forests and protected areas.

Under-Secretariat for the Environment, in the Ministry of Energy and Mines: regulates the environmental effects of mining.

Instituto Nacional de Investigaciones Agropecuarias (INIAP): has a National Plant Genetic Resource Department and maintains the Napo-Payamino Station.

Universidad Central del Ecuador: researches wild floristic species, medicinal plants, genetic improvements, and alternative agriculture. The Escuela Politécnica Nacional has a Department of Economic Botany.

Catholic University in Quito: has a herbarium with 100,000 items; collaborates with the University of Tel Aviv in Israel to grow Amazonian plants in association with indigenous peoples.



Natura Foundation: important NGO; deals with protected areas and biodiversity resources.

ECUAMBIENTE S.A.: an ecology and environment company; provides advice and support for environmental projects.

Cuyabeno Ecological Station : research in Amazonian ecosystems.

## **Guyana**

Guyana Agency for Health, Science, Education, Environment and Food Policy (GAHEF): environment and natural resources management; works with CEMAA and oversees pollution, environmental impacts, ecological legislation and sustainable development.

Guyana Natural Resources Agency (GNRA): deals with natural resource management and the environment, and areas related to geology, mining, forestry, hydropower and land monitoring.

National Agricultural Research Institute: research on soil.

Forestry Action Plan Programme: supported by the Canadian International Development Agency (CIDA) and TROPENBOS of the University of Utrecht in the Netherlands.

University of Guyana: currently implementing a project on flora, and researching the management and environmental planning of water resources.

Institute of Applied Science and Technology (IAST): wood, food and natural products.

Guyana Natural Resources Agency: administers forest resources.

## **Peru**

Institutions dealing with zoning are at the central and regional levels.

Oficina Nacional de Evaluación de Recursos Naturales (ONERN), under the Instituto Nacional de Planificación (INP): principal fields are zoning and biodiversity. Conducts specific studies on natural resources and has prepared ecological and forestry maps, as well as an environmental profile. Also has a GIS, and processes satellite imagery.

At the regional government level, there is a plan to zone 100,000 square kilometres in the Department of Ucayali, with Technical Cooperation from Switzerland (COTESU).

National Development Institute (INADE): handles special projects, has a department for Regional Development Policy Support (APODESA), is experienced in zoning, and has a GIS.

Institute for Research in the Peruvian Amazon Region (IIAP) in Iquitos: analyzes the biochemically active compounds of plants.

Instituto del Mar del Peru (IMARPE), an organ of the Fisheries Sector: research in marine biology at the national level.

Peruvian Primatology Centre in Iquitos: studies primates in captivity, together with the Pan-American Health Organization (PAHO), San Marcos University, and the Ministry of Agriculture; has evolved techniques to raise diverse species of Amazonian primates in captivity.

School of Forestry of the National Agrarian University of La Molina: biodiversity management.

Cayetano Heredia University in Lima: researches medicinal plants.

Universidad Nacional de la Amazonia Peruana (UNAP) in Iquitos: biodiversity management.

## **Suriname**

National Planning Office (NPO): the environmental department of the NPO may regulate zoning.

Ministry of Natural Resources: automates information in the sectors of energy, forestry and landholding, with EU support (GESPLAN); administers natural resources, including forest and aquatic resources.

University of Suriname: has an Agricultural Research Institute, a herbarium and a zoology collection.

## **Venezuela**

Autonomous Amazon Development Service (SADA-Amazonas), under the Ministry of Environment and Renewable Natural Resources: responsible for the planning and management of the Federal Territory of Amazonas (TFA), as well as its zoning. Also oversees the Alejandro von Humboldt Amazonian Research Centre.

Computerized Environmental Information System (SICA), under the Ministry of the Environment and Renewable Natural Resources: handles information on territorial analysis and forest monitoring.

Venezuelan Forest Service (SERFOVEN): zoning.

Instituto Venezolano de Investigaciones Científicas (IVIC): zoning, and research in flora and wildlife.

National Parks Institute (INPARQUES), under the Ministry of Environment and Renewable Natural Resources: manages zoning, protected areas, and the Autonomous Amazon Development Service (SADA-Amazonas) in charge of the Federal Territory of Amazonas.

National Laboratory of Forest Products: wood technology.

Botany Institute Foundation: has a herbarium with 250,000 items, and trained scientific staff.

Vitaplant Laboratory: has produced approximately a hundred indigenous drugs and has an ethnobotanical herbarium with 20,000 items.

### **Subprogramme 3**

In nearly every country in this region, grassroots indigenous organizations have supported specific environmental projects. For the past several decades, these groups have organized themselves at the local, national and regional levels. Local associations have been formed by the ethnic groups. At the national level, they have formed federations, such as AIDESER (Peru), CIDOB (Bolivia), CONFENIAE (Ecuador), ONIC (Colombia), and UNI (Brazil). At the regional level, they have formed the Coordinating Agency of Indigenous Organizations in the Amazon Basin (COICA).

## **B. PROJECT JUSTIFICATION**

### **1. Problem to be addressed and the present situation**

This project addresses the problem of conservation and the sustainable use of natural resources in Amazonia. It aims to reinforce the capacity to:

- Order land use and natural resources in the region through ecological and economic zoning to address the problem of unplanned occupation of land, and counter current systemic flaws at several levels, from the national to the regional, through systems coordination, the sharing of information, and the implementation of specific projects in countries of the ACT. Zoning will also deal with the conservation of biodiversity and the use of natural resources in indigenous lands.
- Conserve natural resources and prevent their loss by assigning special areas for their protection.
- Improve the management of biodiversity at:
  - (i) The regional level, by structuring and implementing regional policies and strategies for the conservation and use of biodiversity, and recognizing that this basin and all its resources are shared by several countries;
  - (ii) The national level, by supporting inter-institutional coordination through the task forces formed in each country under the CEMAA, in association with the International Cooperative Biodiversity Groups (ICBGs); and
  - (iii) The institutional level, both public and private, by preparing and executing specific national projects, which would reinforce the capacity of these institutions.

- Strengthen key regional and national institutions in the ACT countries to effect sustainable development programmes, and conserve and use the region's biodiversity in a coordinated and integrated manner.
- Support and strengthen regional cooperation to achieve these aims.
- Implement systems and technologies that tap existing resources—particularly in the "standing" Amazonia—without damaging their natural capital and, at the same time, guaranteeing economic and social benefits for local inhabitants.
- Launch a natural resource management programme in indigenous lands in two phases by:
  - (i) Preparing concrete actions for execution by indigenous organizations at the grassroots level; and
  - (ii) Carrying out pilot projects in three areas of the basin to gather experience.

## **2. Expected end-of-project situation**

Although the initial span of the project is two years, it may take longer because some of the problems that could arise (see page 27) are not amenable to easy solutions. At its inception, the project will attempt to establish regional capacity to deal with the pressing issues of regional coordination, training, the structuring of regional policy and strategy, the sharing of experience, and the strengthening of key institutions in each of the ACT countries.

At the regional level, the project will attempt to identify alternatives to promote the sustainable use of resources in Amazonia and build capacity in the ACT countries, both individually and collectively, for economic zoning, biodiversity conservation, and natural resource management in indigenous territories.

### **Subprogramme 1**

This subprogramme will address the lack of a uniform standard of technical progress and coordination in the zoning of the region. Standard systems and methodologies will be made available for the ACT countries through training and the sharing of experience.

At the national level, the subprogramme will implement the GIS and training required to improve coordination and the technical capacity of the institutions responsible for zoning. It will prepare specific national zoning projects in countries without zoning programmes, and reinforce the capacity to execute projects in countries where these are already underway.

By the end of this project, the basic elements of institutional structure, personnel, and information necessary for zoning are expected to be in place to achieve the broad development objective of rational management of natural resources in the region, as provided for in ACT.

## Subprogramme 2

The countries of ACT will, by the end of this project, have augmented their capacity to manage biodiversity; increased their knowledge of the patent system as it applies to the countries of the region and internationally; determined the world market demand for Amazonian products; and agreed to policies and regional strategies for biodiversity management. In addition, documentation centres on Amazonian biodiversity will be established; national and regional coordination strengthened; specific national projects (on managing biodiversity for economic purposes) prepared and executed; and vital national institutions reinforced.

## Subprogramme 3

This subprogramme will have provided the knowledge to cope with resource management in indigenous territories, and shown that indigenous peoples can independently execute specific environmental projects.

### **3. Target beneficiaries**

The long-term beneficiaries will be the local communities of the region who will gain:

- A better understanding of land use and ecosystems, and their potential value and possibilities if rationally managed and protected
- A greater knowledge of the commercial uses of biodiversity, and the systems suitable for its exploitation and conservation.

In addition, a reinforced capacity at national, state and municipal levels to order resource use will counteract the disorder—and ensuing conflict—that prevails today. The secondary beneficiaries will be institutions and their personnel, trained for better research, management and administration.

This project will also contribute to the solution of global environmental problems. The general objective of the project is to preserve the Amazon region, using new resource management systems to conserve and protect its ecosystems, lower carbon dioxide emissions to the atmosphere from forest burning, maintain the tropical forest cover, and preserve the biological and cultural diversity of the region.

### **4. Project strategy and institutional arrangements**

Considerable progress has been made by the Pro Tempore Secretariat of ACT to coordinate the efforts of member countries by: forming special commissions; holding successive meetings of foreign ministers and presidents of the region; and structuring policies, strategies and programmes on the environment, indigenous peoples, tourism, science and technology, and health and communications. A long-term perspective has been maintained in all these activities.

### Subprogramme 1

The project will:

- Develop a regional consensus on zoning strategies through the sharing of experience on national projects among the ACT countries, and use GISs for environmental management and planning
- Strengthen key national institutions to deal with zoning, and provide technical assistance to countries of the region in setting up zoning projects or reinforcing existing ones
- Establish mechanisms and processes for regional coordination and cooperation within the ACT.

### Subprogramme 2

The project proposes to:

- Build regional capacity to manage biodiversity in Amazonia; provide technical assistance for a better understanding of patent systems, intellectual property, access to biotechnology, potential markets for new products, and systems for the economic uses of biodiversity; and prepare regional policies and strategies for the joint management of biodiversity
- Support the retrieval and exchange of scientific and technological information on Amazonian biodiversity, and improve the flow of information in the institutions of the ACT for the advantage of researchers and technicians
- Strengthen institutions responsible for biodiversity in each country.

National and regional capacity will have been improved, after two years, to undertake specific biodiversity management projects for economic purposes and for the benefit of local people.

### Subprogramme 3

This subprogramme has a relatively low level of funding. It encourages the participation of indigenous grassroots groups, especially in Bolivia, Colombia and Ecuador, to implement schemes involving forestry management, extraction, and the tapping of hydrobiological resources.

## **5. Coordination arrangements**

Numerous activities need to be coordinated at several levels. Regional coordination will be established through the Pro Tempore Secretariat (PTS) of the ACT in Quito, Ecuador, in two tiers: between UNDP and the PTS, and between the latter and each country. A UNDP regional coordinator will therefore be based at the PTS. The field offices of UNDP will play an active role in national coordination, maintaining contact with the PTS and the regional coordinator to avoid any duplication of effort.

## **6. Counterpart support capacity**

### **Subprogrammes 1 and 2**

Existing institutions in the countries of the region will assist in implementing this project. These institutions are listed below.

#### **Bolivia**

Environmental Secretariat (SEGMA): will coordinate activities related to the use of biodiversity and the financing of a zoning and ecological mapping project with the Inter-American Development Bank (IDB).

Ecology Institute: will have two main categories of work—agro-ecology and conservation. In coordination with the Centre for Land Use (CUMAT), the institute is taking an inventory of the natural resources of the Department of Pando using satellite imagery, with assistance from IDB and the Netherlands. It is also preparing a vegetation map of Bolivia (scale 1:250,000) and forming a national network of institutions that work with satellite information.

CUMAT: specializes in agro-ecological zoning, and GIS.

CDC-Bolivia: deals with flora, wildlife and protected areas.

CORDECRUZ: is the only organization in Bolivia with the infrastructure and equipment for zoning projects.

#### **Brazil**

Brazil has the administrative, technical, managerial and research capacity for work in zoning, and is a major source of information and experience for the region. The Federal Units of Acre, Amazonas, Mato Grosso, Para, Rondonia and Tocantins have been zoned for agro-ecology, land-use capacity, and ecology/economics.

The institutions with GISs are IBAMA, INPE, SUDAM and the TUNIAC project, with their own unique hardware and software.

Fundação Instituto Brasileiro de Geografia e Estatística (IBGE): a key institution for zoning.

SUDAM: a key institution for both zoning and biodiversity conservation, it has completed a study in 1990 to zone the natural resource potential of Legal Amazonia.

EMBRAPA: conducted a study on the aspects of agro-ecology at the regional and state levels.

EMBRAPA-CENARGEN: has excellent staff and infrastructure for work in genetic resources. Support should be extended to this centre, and its experience in training shared with other countries of the region.

IBAMA: on-site conservation, extractive reserves and forestry management.

INPA: biodiversity management.

## **Colombia**

IGAC: has a regional training centre, and the installed capacity for a GIS. Has worked on zoning since 1991.

INDERENA: has limited installed capacity in the Departments of Forestry and Basin Management. In the former, it has installed an ERDAS imagery processing system. In Basin Management, it works with Tadeo Lozano University, and has a GIS. Both departments require extensive training. INDERENA has the potential to be a good counterpart institution for zoning the Amazonian portion of Colombia. It also plays a key role in the management of resources related to forestry, fishing, flora and fauna.

ICA: has made notable progress in genetic resources, with an orientation toward the coastal and highland areas.

COA: has a practical approach and executive ability. It is the institution most directly related to the management of Amazonian biodiversity, and works successfully with producers and local dwellers.

A national task force for biodiversity management should comprise INDERENA, the Instituto Colombiano para el Desarrollo de la Ciencia y la Tecnología "Francisco José de Caldas" (COLCIENCIAS), ICA and the Central University.

## **Ecuador**

PRONAREG: has zoning experience in the Amazon region with traditional cartographic methods, integrating land use for agriculture.



CLIRSEN: with its Cotopaxi satellite station, has great expertise in the digital interpretation of satellite information, with infrastructure and trained personnel providing the potential to incorporate GISs quickly. Additional personal computers, training and technical assistance will be needed to realize this potential.

INIAP: a key institution for biodiversity. Maintains the Napo-Payamino Station.

A national task force on biodiversity management should include INIAP, the Catholic University, the National Polytechnic Institute, CONACYT and several NGOs.

### **Guyana**

Guyana will need extensive human resource training in biodiversity and genetic resources management. It will also require technical and financial assistance due to its "brain drain" and economic crisis.

GAHEF and GNRA have the best installed capacity. However, they also have serious problems in terms of trained staff, infrastructure and equipment.

Department of Biology at the University of Guyana: ongoing project on the flora of the country. A Fauna Study Centre is being established with help from the Smithsonian Institution and the World Wide Fund for Nature (WWF).

Other institutions include GNRA and IAST. Guyana has zoning and forestry projects with CIDA, and with TROPENBOS of the University of Utrecht in the Netherlands.

### **Peru**

ONERN: has long experience in environmental zoning, satellite imagery interpretation and data processing, and a well-trained staff. Its equipment, however, needs replacement.

APODESA: has the capacity and experience for zoning.

IIAP: located in the Amazon region, with a legal mandate for research, evaluation, monitoring and control of Amazonian natural resources. The institute analyzes plants for biochemically active compounds and manages wildlife and genetic resources.

The national task force should include UNAP in Iquitos, and ONERN in Lima.

### **Suriname**

Ministry of Natural Resources: the leading institution for forest resources, flora, fauna and protected areas. The participation of the University of Suriname is necessary for research.

## **Venezuela**

MARNR-SADA/Amazonas: has extensive information from a previous project funded by the United Nations, which published 120 volumes of information until 1986. Some specialists from the technical team are still with the institution. The CORDESUR project, with assistance from the Institut Français de Recherche Scientifique pour le Développement en Coopération (ORSTOM), covered the entire Amazonas Federal Territory with respect to soils, geology and land use, and published an atlas in 1983. This information is currently being updated. SADA-Amazonas, an autonomous service reporting to MARNR, has infrastructure, personnel and a research centre.

Von Humboldt Amazonian Research Centre: established with assistance from the Federal Republic of Germany.

SICA: an inter-institutional group of MARNR with a GIS that evaluates and monitors map-making, territorial analysis and tropical forests. SICA is a counterpart of INEP in Brazil.

Institute of Engineering Foundation in Caracas: has a digital imagery processing centre. This is an excellent organization with the capacity to provide advanced training.

The national task force should be comprised of the National Laboratory of Forest Products, the Vitaplant Laboratory, the Botanical Institute of Venezuela, and the School of Forestry at the University of the Andes.

### **Subprogramme 3**

The Special Commission on the Affairs of Indigenous Peoples (CEAIA) will coordinate with COICA and the national federations in the countries involved. The project will work with grassroots organizations chosen by the preparatory mission and trained for this purpose.

## **C. DEVELOPMENT OBJECTIVE**

In its broadest sense, the project will zone the Amazon basin and seek viable economic, social and environmental alternatives to the use of its natural resources without destroying its ecosystems. Specifically, the project will augment sustainable development in the Amazon region through ecological zoning and geographical monitoring, conserve the region's biodiversity, and manage natural resources in indigenous lands.

## **D. IMMEDIATE OBJECTIVES, OUTPUTS AND ACTIVITIES**

### **Subprogramme 1**

#### **IMMEDIATE OBJECTIVE 1**

To evolve a regional consensus on ecological zoning policies and strategies through the sharing of experience from zoning projects underway or concluded within the ACT countries, and to use GISs in planning and environmental management.

##### **Output 1.1**

Share zoning experience through the exchange of personnel involved in zoning projects in ACT countries. Structure regional policies.

##### **Activities for Output 1.1**

- 1.1.1 Form a regional zoning task force.
- 1.1.2 Prepare regional policies and strategies for zoning through a support mission.
- 1.1.3 Hold a workshop on zoning experiences.

##### **Output 1.2**

Exchange information on zoning projects concluded or still underway.

##### **Activities for Output 1.2**

- 1.2.1 Form national task forces.
- 1.2.2 Exchange data on GISs.
- 1.2.3 Transfer documents published on zoning.
- 1.2.4 Exchange information on zoning regulations.

#### **IMMEDIATE OBJECTIVE 2**

To strengthen key institutions to execute zoning projects, provide technical assistance to countries for the preparation of zoning projects, and coordinate projects underway.

## **Output 2.1**

Encourage the initiation or improvement of zoning projects.

### Activities for Output 2.1

- 2.1.1 Organize missions to assist in specific zoning projects in Ecuador, Guyana, Peru and Suriname.

## **Output 2.2**

Establish coordination among institutions that execute or prepare zoning projects in the ACT countries.

### Activities for Output 2.2

- 2.2.1 Bolivia: local zoning project with UNDP. Natural resource management projects with CORDECRUZ.
- 2.2.2 Brazil: several completed programmes. Others in execution in various states of the Amazon region (Tocantins: EMBRAPA; Mato Grosso: FAO; Amazonas, Para, Rondonia, Acre, Amapa and Roraima).
- 2.2.3 Colombia: zoning project in financing stage (Tropical Forestry Action Plan (TFAP)).
- 2.2.4 Ecuador: zoning project in preparation.
- 2.2.5 Venezuela: SADA-Amazonas.

## **Output 2.3**

Establish a regional base for training and the development and coordination of databases.

### Activities for Output 2.3

- 2.3.1 Establish the CEMAA task force as a coordination unit.
- 2.3.2 Establish a GIS in each country.
- 2.3.3 Prepare training materials.
- 2.3.4 Establish the database and develop pilot projects in Bolivia, Ecuador, Guyana, Peru and Suriname.

## **Output 2.4**

Establish institutional technical capacity in GISs.

### Activities for Output 2.4

2.4.1 Install and adjust GISs in Bolivia, Ecuador, Guyana, Peru and Suriname.

2.4.2 Train personnel.

2.4.3 Provide technical assistance for project follow-up.

## **IMMEDIATE OBJECTIVE 3**

To establish regional mechanisms and coordination processes through the ACT.

## **Output 3.1**

Strengthen the CEMAA.

### Activities for Output 3.1

3.1.1 Identify and establish processes that would facilitate coordination.

3.1.2 Identify and engage technical coordinators for each country with pilot projects.

## **Output 3.2**

Establish counterpart participation in countries to provide coordination.

### Activities for Output 3.2

3.2.1 In each country, identify counterpart teams with four or five members: group leader, technical coordinator, two project assistants and a secretary.

## **Output 3.3**

Establish a regional GIS service with full technical capacity in one ACT country.

### Activities for Output 3.3

3.3.1 Select institutions in the ACT countries.

3.3.2 Identify needs for additional personnel.

3.3.3 Begin contracts.

3.3.4 Purchase additional equipment.

3.3.5 Engage additional staff.

#### **Output 3.4**

Produce regional maps through the ACT.

##### Activities for Output 3.4

3.4.1 Design required maps.

3.4.2 Arrange contracts for compilation and production services.

#### Subprogramme 2

#### IMMEDIATE OBJECTIVE 1

To strengthen regional capacity for Amazonian biodiversity management.

#### **Output 1.1.**

Provide technical assistance to conduct high-priority studies for the management and sustainable use of Amazonian biodiversity.

##### Activities for Output 1.1

1.1.1 Conduct a study on a system of patents and protection of intellectual property in Amazonian biodiversity, and on the access to biotechnology.

1.1.2 Conduct a study to analyze and identify the most suitable systems in the region for biodiversity use.

1.1.3 Conduct a study of the market demand, both domestic and international, for biodiversity products.

#### **Output 1.2**

Provide technical assistance to the ACT countries for the coordinated management of Amazonian biodiversity.

### Activities for Output 1.2

- 1.2.1 Assist in preparing regional policies and strategies for biodiversity management.
- 1.2.2 Assist in organizing a meeting of countries to approve regional policies and strategies.

## IMMEDIATE OBJECTIVE 2

To strengthen regional scientific capacity by supporting the retrieval of information on Amazonian biodiversity and its dissemination.

### **Output 2.1**

Retrieve information on Amazonian biodiversity from abroad.

#### Activities for Output 2.1

- 2.1.1 Support ACT countries through their institutions in retrieving information from abroad, and strengthen documentation centres:
  - Bolivia: Ecology Institute and CDC-Bolivia
  - Brazil: EMBRAPA-CENARGEN
  - Colombia: INDERENA and COA
  - Ecuador: INIAP
  - Guyana: IAST
  - Peru: IIAP
  - Suriname: University of Suriname
  - Venezuela: MARNR-SADA/Amazonas.

### **Output 2.2**

Support regional cooperation, and the coordination of scientific and technological information on biodiversity management.

#### Activities for Output 2.2

- 2.2.1 Assist in facilitating the flow of information among institutions and countries.
- 2.2.2 Exchange information on biodiversity.

## IMMEDIATE OBJECTIVE 3

To strengthen national institutions for the management of Amazonian biodiversity.

### **Output 3.1**

Strengthen national and regional coordination among institutions.

#### Activities for Output 3.1

- 3.1.1 Form national task forces for biodiversity management in each of the eight ACT countries.
- 3.1.2 Select and hire eight national coordinators, one for each country.
- 3.1.3 Support two national meetings for each national task force.
- 3.1.4 Support two regional technical meetings of task force coordinators.
- 3.1.5 Determine the needs of participating institutions.

### **Output 3.2**

Provide technical assistance for the preparation of specific national projects for the economic use of biodiversity, with the participation of public institutions.

#### Activities for Output 3.2

- 3.2.1 Organize a mission to prepare specific projects.
- 3.2.2 Support the Pro Tempore Secretariat of ACT to coordinate financing for specific national projects.

### **Output 3.3**

Strengthen key national institutions.

#### Activities for Output 3.3

- 3.3.1 Prepare specific projects with institutions designated in each country (listed under Activity 2.1.1 of Subprogramme 2).
- 3.3.2. Sign subcontracts for project execution with each institution, possibly through national UNDP offices, with the participation of the Pro Tempore Secretariat.
- 3.3.3 Implement projects for two years.



## **Output 3.4**

Support human resource training.

### **Activities for Output 3.4**

3.4.1 Guyana: 12 man-months (mm) in training grants.

3.4.2 Suriname: 12 mm in training grants.

3.4.3 Bolivia: 12 mm in training.

3.4.4 For all countries: 24 mm in short training trips.

## **Subprogramme 3**

### **IMMEDIATE OBJECTIVE 1**

To provide technical assistance for natural resource management projects in association with indigenous peoples.

## **Output 1.1**

Organize a preparatory mission to locate and prepare pilot projects.

### **Activities for Output 1.1**

1.1.1 Make arrangements for coordination of preparatory mission.

1.1.2. Implement preparatory mission to locate the projects, and identify organizations to execute them.

## **Output 1.2**

Prepare three projects for execution and coordinate their implementation.

### **Activities for Output 1.2**

1.2.1 Prepare three specific projects.

1.2.2 Approve them with the indigenous executing groups.

1.2.3 Sign contracts for execution of the projects.

## **IMMEDIATE OBJECTIVE 2**

To execute three specific projects on natural resource management with indigenous groups.

### **Output 2.1**

Execute a project in the indigenous reservations in Colombia.

### **Output 2.2**

Execute a project in the indigenous territory in Ecuador.

### **Output 2.3**

Execute a project in the indigenous territory in Bolivia.

## **E. INPUTS**

### **Subprogramme 1**

#### **1. Government**

##### **Personnel (to be negotiated)**

Five of the ACT countries will make available permanent teams of three technically qualified persons (one technical coordinator and two GIS technicians) amounting to fifteen people for 36 mm each.

Short-term personnel will be provided for three weeks during each year of the project in all ACT countries to work with the national task forces. Short-term personnel will also be provided to attend regional workshops and study missions. Other occasional personnel will be provided if the need arises.

##### **Services (to be negotiated)**

The project provides for contracts to be signed between some ACT countries and the regional coordination office in Quito. These are designed to provide technical services to the region.

## **2. Global Environment Facility**

### **Personnel**

#### *International*

Regional coordinator	36 mm
GIS and zoning expert for Brazil	35 man-days
Expert in GIS training/teaching materials	140 man-days

## **3. Inter-American Development Bank**

### **Personnel**

#### *International*

#### Regional workshops

Zoning expert	180 man-days
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#### Missions

Environmental economist	6 mm
GIS expert for field missions	140 man-days

#### *National*

National coordinators (5)	24 (x 5) mm
Advisor to the regional coordinator	36 mm

### **Subprogramme 2**

## **1. Government**

### **Personnel**

Technical teams from institutions will be provided to participate in task forces and scheduled meetings. Personnel from institutions will also be provided to execute national projects. This will not require them to be reassigned to other activities, but to contribute towards facilitating the work of this project. Project funds could cover the additional costs incurred.

## **2. Global Environment Facility**

### **Personnel**

#### ***International***

Regional coordinator for project	36 mm
Expert in patents and intellectual property for the region	4 mm
Expert in international patents	2 mm
Expert in international markets for biodiversity products	2 mm
Expert in management systems	4 mm
Expert in regional policies and strategies	3 mm
Expert in information systems on Amazonian biodiversity	3 mm
Expert in regional projects	3 mm

#### ***National***

National coordinators (8)	12 (x 8) mm
Administrative assistant for the regional coordinator	36 mm

## **3. Pro Tempore Secretariat of ACT**

Offices, equipment and personnel for logistic support.

## **4. Inter-American Development Bank**

Direct contribution of funds for CENARGEN in Brazil.

### **Subprogramme 3**

#### **1. Government**

Contributions from the government will not be required as work will be done directly with indigenous peoples.

## **2. Global Environment Facility**

### **Personnel**

International expert in projects with indigenous groups	3 mm
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## **F. RISKS**

1. Border disputes and mistrust could hamper project progress among countries of the basin. This threat could be neutralized by UNDP and ACT intervention.
2. The difference in budgets allocated to each country could pose a problem. The project provides more resources for countries with the least equipment, infrastructure and personnel.
3. Institutions may not actively participate in project execution due to focusing on their own pressing programmes. This project is, however, committed to reinforcing institutional capacity and supplying institutions with additional personnel.
4. In order to coordinate the programmes of this project, ACT countries or institutions may wish to take over the execution of its subprogrammes, thereby complicating its logistics and funding. This would entail setting up another administrative mechanism and hamper regional coordination under the ACT.

## **G. PRIOR OBLIGATIONS AND PREREQUISITES**

The project, as it stands, should be approved by the participating countries. This approval will be requested through UNDP and its national offices and the Pro Tempore Secretariat of ACT.

## **H. PROJECT REVIEW, REPORTING AND EVALUATION**

UNDP and the Pro Tempore Secretariat should agree on an evaluation and reporting system on the progress and outputs of this project according to norms established by the financing institution. The regional coordinator of the project will support the preparation of progress reports according to UNDP procedures. An administrative assistant will be hired to ensure accountability with respect to funds. He will report to the regional coordinator and support all financial aspects.

## **I. LEGAL CONTEXT**

This project is part of the technical cooperation programme of UNDP, the Pro Tempore Secretariat of ACT, and member countries of the treaty.

## **J. BUDGET**

The GEF budget totals US\$ 4,498,746. The allocation per programme is:

- Subprogramme 1: Ecological zoning and geographical monitoring of the Amazon basin US\$ 774,966
- Subprogramme 2: Capacity building for the sustainable utilization of Amazonian biodiversity US\$ 3,424,860
- Subprogramme 3: Natural resource management in indigenous territories US\$ 298,920

The Inter-American Development Bank will contribute a counterpart sum of US\$ 781,085. (This figure includes a contribution of US\$ 581,085 for Subprogramme 1, and a direct contribution of US\$ 200,000 for CENARGEN in Brazil under Subprogramme 2.) The countries will contribute a counterpart sum of US\$ 855,000 (in kind).

Detailed budgets for all three subprogrammes are attached.

## PROJECT BUDGET BY SUBPROGRAMME

Project Title: Regional Strategies for the Conservation and Sustainable Management of Natural Resources in the Amazon  
 Project Number: RLA/92/G31/G32/G33

### I. Subprogramme 1: Ecological Zoning and Geographical Monitoring of the Amazon Basin

#### 1.0 Itemized breakdown of contributions by financial entities

ITEM	IDB	GEF	LOCAL	TOTAL
2. CONSULTANTS				
2.1 National				
1. Regional coordinator 36 mm x 6,000		216,000		216,000
2. National coordinators 5 x 24 mm x 2,200	264,000			264,000
3. Advisor to the coordinator 36 mm x 2,500	90,000			90,000
International				
1. Environmental economist for project preparation 7 mm x 6,000	36,000			36,000
2. Expert in zoning				
• Regional workshops 40 days x 300	54,000			54,000
• Field missions 140 days x 300				
3. GIS expert for field missions 140 days x 300	42,000			42,000

4.	Zoning and GIS expert for Brazil 35 days x 300	10,500		10,500
5.	GIS expert			
•	Materials 40 days x 300	42,000		42,000
•	Installation and training 100 days x 300			
Counterpart personnel				
	3 national technicians 5 countries x 36 months x 1,500		810,000	810,000
2.3	Contract expenses			
1.	Travel fare, consultants and dependents 7 + 6 x 1,200	15,600		15,600
2.	Transport of personal effects	12,000		12,000
2.5	Travel and per diem			
1.	National travel (100)	72,000		72,000
2.	International travel (50)	60,000		60,000
3.	Consultant per diem, 800 days x 100	80,000		80,000
SUBTOTAL 2		468,000	508,100	810,000
5.	TASK FORCE MEETINGS AND REGIONAL WORKSHOPS			1,804,100
5.1	Travel and per diem			
1.	Travel (average US\$ 600)			



•	Three task forces 3 x 3 meetings x 10 participants	54,000		54,000
•	Two regional workshops 2 x 35 participants	42,000		42,000
•	Two subregional workshops 2 x 10 participants	12,000		12,000
2.	Per diem (US\$ 100/day)			
•	Three task forces 3 x 3 meetings x 10 x 5	45,000		45,000
•	Two regional workshops 2 x 35 x 5 days	35,000		35,000
•	Two subregional workshops 2 x 10 x 5 days	10,000		10,000
	SUBTOTAL 5	198,000		198,000
6.	GENERAL SUPPORT			
6.1	Office space		20,000	20,000
6.2	GIS equipment (5 x 7,500)	37,500		37,500
6.6	Support personnel		20,000	20,000
6.8	Communications	25,000	5,000	30,000
	SUBTOTAL 6	37,500	25,000	45,000
				107,500
	TOTAL	523,500	731,100	855,000
	Overhead	57,585	43,866	-
	OVERALL TOTAL	581,085	774,966	855,000
				2,211,051

## 2.0 BUDGET BY LINE ITEMS - GEF CONTRIBUTION

ITEM	Year 1	Year 2	Year 3	TOTAL
10 PROJECT PERSONNEL				
11 International experts				
11.01 Regional coordinator	72,000	72,000	72,000	216,000
11.02 GIS expert Brazil	10,500			10,500
11.03 GIS expert				
• Materials	12,000			12,000
• Instal./training	10,000	20,000		30,000
11.99 Subtotal	104,500	92,000	72,000	368,500
15.00 Official travel by experts	100,000	60,000	52,000	212,000
16.00 Mission costs	9,200	9,200	9,200	27,600
30. TRAINING AND CONFERENCES				
34.00 Conferences and meetings				
• Task forces	33,000	33,000	33,000	99,000
• Regional workshops	38,500	38,500		77,000
• Subregional workshops	11,000	11,000		22,000
39. Subtotal	82,500	82,500	33,000	198,000
52. Communications	8,334	8,332	8,334	25,000
TOTAL	304,534	254,032	174,534	731,100
Overhead	18,272	15,122	10,472	43,866
OVERALL TOTAL	322,806	267,154	185,006	774,966

II. Subprogramme 2: Capacity Building for the Sustainable Utilization of Amazonian Biodiversity

1.0 BUDGET BY OBJECTIVES AND ACTIVITIES

OBJECTIVES & ACTIVITIES	Year 1	Year 2	Year 3	TOTAL
1.0 STRENGTHENING OF REGIONAL ACTION				
1.1 Regional studies				
1. Patents and intel. property				
• Regional	50,000			50,000
• International	50,000			50,000
2. Management systems	50,000			50,000
3. Market for specific products	50,000			50,000
1.2 Regional coordination				
1. Prep. regional policies	75,000			75,000
2. Meeting of ACT countries		75,000		75,000
SUBTOTAL	275,000	75,000		350,000
2.0 AMAZON INFORMATION				
2.1 Study of inform. systems	30,000			30,000
2.2 Information retrieval				
1. Bolivia/ Ecol. Inst.	10,000	20,000	20,000	50,000
2. Brazil/ CENARGEN	50,000	100,000	50,000	200,000
3. Colombia/COA	10,000	20,000	20,000	50,000
4. Ecuador	25,000	25,000		25,000
5. Guyana	10,000	20,000	20,000	50,000
6. Peru/IIAP	20,000	50,000	30,000	100,000
7. Suriname/Univ.	10,000	20,000	20,000	50,000
8. Venezuela/SADA	20,000	20,000	10,000	50,000

2.3	Information exchange	20,000	50,000	30,000	100,000
	SUBTOTAL	205,000	325,000	200,000	730,000
3.0	INSTITUTIONAL STRENGTHENING				
3.1	National coordination				
1.	National task forces				
•	National coord.	72,000	96,000	24,000	192,000
•	National meetings	54,000	54,000		108,000
•	Regional meetings		50,000	50,000	100,000
3.2	Prep. national projects	35,000			35,000
3.3	Execution of national projects				
1.	Bolivia/Ecol.Inst.	25,000	50,000	25,000	100,000
2.	Brazil	(200,000)*	200,000	110,000	510,000
3.	Colombia	25,000	50,000	25,000	100,000
4.	Ecuador	25,000	75,000		100,000
5.	Guyana	10,000	30,000	10,000	50,000
6.	Peru	25,000	75,000	50,000	150,000
7.	Suriname	10,000	30,000	10,000	50,000
8.	Venezuela	25,000	50,000	25,000	100,000
3.4	Human resources training				
1.	Study grants	50,000	200,000	74,000	324,000
2.	Study trips	22,000	25,000	25,000	72,000
	SUBTOTAL	378,000	985,000	428,000	1,791,000
4.0	REGIONAL COORDINATION				
1.	Regional coordinator	96,000	96,000	96,000	288,000
2.	Administrative assistant	24,000	24,000	24,000	72,000
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	TOTAL	978,000	1,505,000	748,000	3,231,000
	Overhead	58,680	90,300	44,880	193,860
	OVERALL TOTAL	1,036,680	1,595,300	792,880	3,424,860

NOTE: \* Direct contribution by IDB to CENARGEN

## 2.0 BUDGET BY LINE ITEMS - GEF CONTRIBUTION

ITEM	Year 1	Year 2	Year 3	TOTAL
<b>10. PROJECT PERSONNEL</b>				
11.01 Regional coordinator	96,000	96,000	96,000	288,000
11.51 Management system consultant	24,000			24,000
11.52 Regional patents consultant	24,000			24,000
11.53 International patents consultant	24,000			24,000
11.54 Regional policy consultant	18,000			18,000
11.55 Information system consultant	18,000			18,000
11.56 Regional project consultant	18,000			18,000
11.57 International markets consultant	12,000			12,000
11.99 Subtotal	234,000	96,000	96,000	426,000
13.00 Administrative assistant	24,000	24,000	24,000	72,000
15.00 Official travel by experts	140,000	17,000	17,000	174,000
16.00 Mission costs	56,000	5,000	5,000	66,000
17.00 National experts	72,000	96,000	24,000	192,000
<b>20. SUBCONTRACTS</b>				
21.00 Projects by countries	145,000	560,000	255,000	960,000
29.00 Miscellaneous third-party services	20,000	20,000	20,000	60,000

<b>30. TRAINING AND CONFERENCES</b>				
31.00 Study grants	50,000	200,000	74,000	324,000
32.00 Travel for study	22,000	25,000	25,000	72,000
<b>34.00 Conferences and meetings</b>				
• Meeting of ACT countries (1)		75,000		75,000
• National meetings (16)	54,000	54,000		108,000
• Regional meetings (2)		50,000	50,000	100,000
39. SUBTOTAL	126,000	404,000	149,000	679,000
<b>40. EQUIPMENT</b>				
41.00 Fungibles	30,000	35,000	35,000	100,000
42.00 Non-fungibles	100,000	215,000	72,000	387,000
49. SUBTOTAL	130,000	250,000	107,000	487,000
<b>50.00 MISCELLANEOUS</b>				
51.00 Equipment maintenance and operation	6,000	8,000	6,000	20,000
52.00 Reporting costs	5,000	5,000	5,000	15,000
53.00 Miscellaneous	20,000	20,000	40,000	80,000
59. SUBTOTAL	31,000	33,000	51,000	115,000
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TOTAL	978,000	1,505,000	748,000	3,231,000
Overhead	58,680	90,300	44,880	193,860
OVERALL TOTAL	1,036,680	1,595,300	792,880	3,424,860
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III. Subprogramme 3: Natural Resources Management in Indigenous Territories

BUDGET BY LINE ITEMS

ITEM	Year 1	Year 2	Year 3	TOTAL
10. PROJECT PERSONNEL				
11.51 Project consultant	18,000			18,000
15.00 Travel and per diem	4,000	4,000	4,000	12,000
16.00 Mission costs	10,000			10,000
20. SUBCONTRACTS	60,000	150,000	32,000	242,000
TOTAL	92,000	154,000	36,000	282,000
Overhead	5,520	9,240	2,160	16,920
OVERALL TOTAL	97,520	163,240	38,160	298,920

## GENERAL SUMMARY OF GEF BUDGET

Project Title: Regional Strategies for the Conservation and Sustainable Management of Natural Resources in the Amazon  
Project Number: RLA/92/G31/G32/G33

SUBPROGRAMME	Year 1	Year 2	Year 3	TOTAL
I. Ecological zoning and geographical monitoring	322,806	267,154	185,006	774,966
II. Training for sustainable utilization of Amazonian biodiversity	1,036,680	1,595,300	792,880	3,424,860
III. Natural resource management in indigenous territories	97,520	163,240	38,160	298,920
TOTAL	1,457,006	2,025,694	1,016,046	4,498,746



## Annex

### TERMS OF REFERENCE FOR PROPOSED STUDIES

#### **Study on patents and intellectual property rights related to Amazonian biodiversity**

The study will investigate the legal and technical aspects of the patent system for each country in the Amazon basin and the industrialized countries, and will make recommendations aimed at achieving an agreement on patents for Amazonian biodiversity. Similarly, the system governing intellectual property in the region and in developed nations will be studied. The result will be a technical report on ways in which the Amazon countries can protect intellectual property rights related to Amazonian biodiversity and register international patents on biotechnology and other related aspects, including the knowledge of indigenous peoples.

#### **Study of systems for management of Amazonian biodiversity**

The study will investigate traditional and modern management systems for the utilization of Amazonian biodiversity in order to achieve the greatest benefit for local dwellers. The efficient and proper management of ecosystems, domesticated species, and plants will be included, as well as *in situ* and *ex situ* conservation methods for genetic resources. The key institutions in each country for improving the management of such resources will be included for the entire region. The outcome will be a technical report with recommendations on successful systems that must be reinforced and disseminated to other countries, including coverage of aspects such as environmental impacts, economic profitability and benefits for local dwellers.

#### **Market study for specific biodiversity products**

The study will attempt to locate those Amazonian biodiversity resources (plants and animals) that have immediate regional and international market potential, and identify the ways in which countries may access these potential markets. The result is intended to be a technical report with specific recommendations on species and products of immediate interest, whose development could provide economic and social benefits for local dwellers and the countries as a whole.

#### **Preparation of regional policies and strategies for management of biodiversity**

The objective will be to prepare regional policies and strategies of common interest to all ACT countries, and to improve the management and utilization of Amazonian biodiversity throughout the region. The document will be concise, but it will include attachments explaining the proposed policies and strategies. The document will be submitted to the ACT countries for discussion and approval.

### **Preparation of specific projects for ACT countries**

The purpose of the study will be to investigate and propose specific projects for the management, conservation, and sustainable use of Amazonian biodiversity in the ACT countries. These projects will consider the economic, social, and environmental aspects of the utilization and conservation of biodiversity. The final document will include projects sufficiently developed for submittal to donor organizations for funding.