

THE WORLD BANK/IFC/M.I.G.A.

OFFICE MEMORANDUM

DATE: February 11, 1999

TO: Mr. Kenneth King, Assistant CEO, GEF
Attention: Program CoordinationFROM:  Lars Vidæus, GEF Executive Coordinator

EXTENSION: 3-4188

SUBJECT: **Venezuela – Conservation and Sustainable Use of the Llanos Ecoregion Project
GEF Medium-Sized Project (MSP)**

1. Please find attached the Project Brief for the "Conservation and Sustainable Use of the Llanos Ecoregion Project" submitted to the World Bank by FUDENA (Foundation for the Defense of Nature). The project has been endorsed by the GEF national operational focal point (see letter, also attached).
2. In accordance with operational guidance for approval of Medium-Sized Projects, we are submitting this project brief to the GEF Secretariat for action by the Chief Executive Officer (CEO). We are simultaneously circulating copies to UNDP/GEF, UNEP/GEF, STAP, and the CBD Secretariat for comments within 15 working days, or by March 4, 1999.
3. We look forward to receiving the GEF Secretariat's comments on this Medium Size Project by March 18, 1999 (if not before). As the requested incremental cost funding from GEF exceeds \$750,000, we understand that this project will be included in the next Work Program submitted to the GEF Council (May 1999). We will therefore take all steps to finalize the MSP brief in accordance with the May Work Program timetable which you recently circulated.

Thank you and best regards.

Distribution:

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MEDIUM-SIZED PROJECT BRIEF

BIODIVERSITY CONSERVATION AND SUSTAINABLE RESOURCE MANAGEMENT IN THE LLANOS ECOREGION OF VENEZUELA

PROJECT IDENTIFIERS	
1. Project Name: Biodiversity Conservation and Sustainable Resource Management in the Llanos Ecoregion of Venezuela	2. GEF Implementing Agency: The World Bank
3. Country or countries in which the project is being implemented: Venezuela	4. Country eligibility: Venezuela ratified the Convention on Biological Diversity September 13, 1994.
5. GEF focal area(s), and/or cross-cutting issues: BIODIVERSITY	6. Operational program/short-term measure: ▪ Operational Program Number 2: Freshwater Ecosystems
7. Project linkage to national priorities, action plans and programs: <p>FUDENA seeks to contribute to the conservation of the biodiversity of the ecoregion of the Llanos of Venezuela through planning comprehensive strategies and implementing demonstration projects with stakeholder participation and citizen-business-government partnerships.</p> <p>Conservation of biodiversity in the Llanos conforms with the National Biodiversity Strategy (in elaboration) and the numerous environmental laws in Venezuela such as the Law of the Environment, Law of Territorial Planning, Penal Law of the Environment, Forestry Law of Water and Soils. The National Plan of Territorial Zoning which is being prepared by the Department of Environmental Planning of the Ministry of the Environment (MARNR) contains objectives to protect the fauna and flora of the National Parks, Monuments, Reserves, Refuges, and other lands under government management in the Llanos.</p> <p>The academic community has identified the Llanos as a priority for study. Universities such as UNELLEZ and Universidad Central de Venezuela support some research and management projects by professors and graduate students in the Llanos in biological research, evaluation of biodiversity, environmental and social assessments. For example, currently UNELLEZ is involved in biodiversity surveys in Portuguesa and Barinas states. NGOs and institutes such as Fundación La Salle, CENDI, Botanical Institute (FIBV), Audubon Conservation Society, EcoNatura, and others also support or conduct research and develop projects to contribute to biological research, sustainable development projects, improvement of agricultural practices, and environmental education in the Llanos. Other actors in the eastern region of the Llanos include oil companies, particularly the efforts of the Desarrollo Armonico de Oriente (DAO) of PDVSA which supports some environmental and social projects and agroforestry. However, these individual efforts have not as yet communicated or identified common goals or objectives, strengths, weaknesses and opportunities for management of biodiversity of the ecoregion. This project could lend to the linkage of these efforts through a strategy to address priorities, encourage efficient use of financial resources, increase cooperative efforts, leverage the</p>	

resources of individual projects and partner organizations, including government agencies, and improve dissemination of information to key actors.

The Llanos is one of the 200 Priority Global Ecoregions of the WWF Living Planet Campaign. It was designated bioregionally outstanding within the Neotropical region by the joint World Bank/World Wildlife Fund priority setting exercise for the LAC region (Dinerstein et al., 1995). The biological richness and productivity of the wetland ecosystems are only matched by the Pantanal region of Brazil, Bolivia, and Paraguay, making the Llanos regionally as well as globally important. At the national level, this region is considered tremendously valuable not only in terms of its biology, but also for social, cultural, and economic reasons.

8. GEF national operational focal point and the date of country endorsement:

Submitted: July 23, 1997
 Acknowledged: September 25, 1997
 Endorsed: March 16, 1998

PROJECT OBJECTIVES AND ACTIVITIES

9. Project rationale and objectives:

Goal:
 FUDENA seeks to contribute to the protection and conservation of the biodiversity of Los Llanos of Venezuela through planning comprehensive strategies and implementing pilot projects with stakeholder participation and private partnerships.

The project has four principal objectives:

- a) To improve the state of knowledge about the ecoregion and to inform Venezuelans and the global community about the ecoregion of the Llanos, its biodiversity, ecosystems, current projects, and actors and stimulate participation in the conservation of the ecoregion.

Indicators:

- a) Information available and more Venezuelan and global citizens have a greater level of knowledge about the Llanos.

<p>b) To establish strategies for ecoregional conservation of biodiversity and sustainable use of biodiversity and indicators for evaluation and to involve stakeholders in the implementation of these strategies.</p> <p>c) To conduct replicable pilot projects that promote the conservation of the biodiversity of the ecoregion through sustainable use and management of natural resources and ecosystems by stakeholders.</p> <p>d) To train decision-makers (from individuals to government officials) to work in multi-disciplinary teams through environmental education, communication and capacity building activities and provide the tools to make decisions that promote the conservation of biodiversity and water resources.</p>	<p>b) Ten year conservation strategy (guide to conservation of the Llanos) written, endorsed by stakeholders and recognized by the national government with measures for evaluation every 3-5 years.</p> <p>c) Organizations and key actors identified to implement activities to promote conservation in the Llanos. Methods and lessons learned from projects have been organized and provided to organizations that could replicate projects.</p> <p>d) Government and civil society are more actively supporting and participating in conservation activities. Increase in private sector support for conservation, private - public partnerships and private sector conservation.</p>
<p>10. Project outcomes:</p> <p>Better understanding of ecoregional biodiversity, ecoregion, and potential impact of land use goals (degradation and fragmentation); development of baseline information and maps that can be tools for prioritization, monitoring conservation and land use changes.</p>	<p>Indicators:</p> <p>Public sector decisions that promote conservation of biodiversity, and watershed management in the Llanos. Increase in activities by civil society that support conservation of Llanos biodiversity and sustainable use of natural resources.</p>

<p>a) Greater dissemination of information about the biodiversity and ecosystems of the Llanos globally and nationally; better appreciation of biodiversity in the context of economic development.</p> <p>b) Development of feasible strategies to conserve biodiversity, manage watersheds, and promote sustainable use of natural resources in the Llanos ecoregion.</p> <p>c) Capacity to make decisions about the biodiversity of the Llanos and sustainable development at the local and regional level (decentralizing decision making and mainstreaming biodiversity concerns into decisions). More involvement of communities and the private sector in conservation of biodiversity</p> <p>d) Greater knowledge of how to involve and empower disenfranchised populations (indigenous, <i>campesinos</i>, women) in management of natural resources. Empowerment of <i>campesinos</i> and environmental educators in slash and burn alternatives and sustainable resource use.</p>	<p>a) Newspaper articles, scientific articles, radio broadcasts, TV programs that mention sustainable development projects, private/NGO/public partnerships that mainstream environmental issues, environmental threats and conservation in the Llanos environmental issues, conservation in the Llanos.</p> <p>b) Ten year strategy with medium-term measures of success written with input and endorsement from stakeholders and distributed.</p> <p>c) Increase in private sector activities that promote conservation and sustainable use of natural resources in the Llanos. Number of educational materials distributed and requested. Number of persons and organizations that express interest in participating in ecoregional training programs. Pre- and post training program evaluations show increased knowledge and application of that knowledge. "Hits" on the FUDENA Llanos web page.</p> <p>d) Leaders and key actors identified among indigenous, campesino, and women that can direct activities that promote sustainable resource management by these populations. Number of campesinos and women involved in hands-on training program. Number of campesinos and women that are trainers. Less slash and burn and other activities that degrade natural resources.</p>
<p>11. Project activities to achieve outcomes (including the cost in US \$ of each activity):</p> <p>1) Scientific assessments, an ecoregion report, online Interactive Environmental Information, and GIS.</p>	<p>Indicators:</p> <p>1a) Research, literature review, and analysis used to produce a Guide to the Llanos ecoregion that includes: Description of the flora and fauna of the ecoregion; their habitats; endemic species; rare and endangered species; hotspots and corridors of biodiversity; opportunities for</p>

<p>2) Socioeconomic assessment.</p> <p>3) A plan developed to conserve biodiversity, and manage watersheds in the Llanos based on a participatory process that strengthens relations, coordinates activities between governments, NGOs, and Civil Society to promote conflict resolution and compromise.</p> <p>4) Development of pilot projects to promote the conservation of biological diversity in the Llanos through sustainable use, including through capacity strengthening and environmental awareness training programs.</p> <ul style="list-style-type: none"> • capacity building for ecoregion conservation • education: alternatives for slash and burn agriculture 	<p>sustainable resource management of vegetation and fauna; key researchers, experts, and organizations and their projects.</p> <p>b) GIS over-lay maps of sub-ecoregions, ecosystems, land use, watersheds, soils, wetlands, protected areas, ranges of indicator species (keystone) for each ecosystem, biodiversity, produced for Guide and use by decision makers and researchers.</p> <p>c) Internet site for Llanos Environmental information developed and published on line as well as on CD-Rom for Information Centers.</p> <p>d) Articles and training materials written about the biodiversity and ecology of the ecoregion and conservation of the ecoregion.</p> <p>2a) Socioeconomic report written</p> <p>3a) List of stakeholders involved in process.</p> <p>b) Alliances made to support the plan and implementation.</p> <p>c) Leaders identified.</p> <p>d) Number of projects or activities and actors identified to implement strategies of the plan.</p> <p>e) Multisector involvement</p> <p>f) Action plan written with measurable ecological, social, cultural, and economic objectives and strategies as a Guide to Conservation and Sustainable Management of Resources in the Llanos.</p> <p>4a) Relevant training materials produced with stakeholder input.</p> <p>b) Environmental awareness and capacity building workshops evaluated as useful by participants.</p> <p>c) Environmental, training, and case study articles submitted to international media, national and local newspapers, radio broadcasts, TV programs.</p>
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<p>partnership with cattle ranch owners for conservation of biodiversity</p>	<p>d) Agreements or alliances established or co-management of natural resources between target sectors.</p> <p>e) Number of individuals and organizations involved in pilot programs that actively become partners for conservation.</p>
<p>5) Fundraising to support environmental projects that will implement the Llanos Ecoregion Conservation strategies</p>	<p>5a) Funds raised.</p>
<p>6) The Technical Coordination Unit will provide technical program support and will oversee project management, procurement, and evaluation. They will report to the Steering Committee.</p>	<p>6a) Initial work plan and terms of reference written and sent to Bank; Projects executed; Midyear, annual, and final reports written and sent to Bank.</p>
<p>12. Estimated budget (in US\$):</p>	
<p><u>Project Budget</u></p>	
<p>GEF:</p>	<p>\$938,900</p>
<p>Co-financing:</p>	
<p>FUDENA</p>	<p>\$700,000</p>
<p>World Wildlife Fund</p>	<p>\$10,000</p>
<p>Herbarium de UNELLEZ</p>	<p>\$100,000</p>
<p>Fundacion Botanico</p>	<p>\$500,000</p>
<p>CENDIGranja</p>	<p>\$100,000</p>
<p>Geografia Viva</p>	<p>\$10,000</p>
<p>Tierra Viva</p>	<p>\$30,000</p>
<p>Econatura</p>	<p>\$30,000</p>
<p>Small private donors</p>	<p>\$10,000</p>
<p>SUBTOTAL:</p>	<p>\$1,490,000</p>
<p>TOTAL:</p>	<p>\$2,428,900</p>
<p>TOTAL GEF: (PDF + MSP)</p>	<p>\$963,900</p>

INFORMATION ON INSTITUTION SUBMITTING PROJECT BRIEF

13. Information on Project Proposer: FUDENA

FUDENA is an NGO, established in Venezuela in 1975 to contribute to the conservation of natural resources and the environment by preserving biodiversity and promoting sustainable development. Its mission is achieved through the implementation of five major areas: Applied Research, Planning and Management of Protected Areas, Information and Education, Communication, and Promotion of Sustainable Development. (See Appendix A)

FUDENA will execute the project in collaboration and partnership with other organizations, including the Ministry of the Environment and Natural Resources (MARNR), World Wildlife Fund, Herbarium de UNELLEZ, Fundacion Botanico, CENDIGranja, Geografia Viva, Tierra Viva, Econatura.

14. Information regarding the executing institution: Same as above

15. Recent Activities/programs relevant to GEF:

With the partial support of WWF-US, FUDENA conducted a rapid biological, geographical and socioeconomic of the Llanos region of Venezuela, establishing a baseline of information to be used in this project. FUDENA and WWF-US have worked together in the conservation of species and protected areas, as well as the environmental education of local communities and the policy design at different levels. FUDENA has also collaborated with the Venezuelan government in the design and implementation of Management plans, as well as specific action plans for the conservation of species such as the Orinoco Crocodile, the Spectacled Bear and Sea Turtles, among others (See Appendix A). FUDENA is the coordinator of the Venezuelan Committee of the Latin American Forest Network (RLB) and Red ARA (The Venezuelan Network of Environmental NGOs). FUDENA is an associate member of WWF, a non-governmental member of the UICN and Venezuelan Focal Point of the Caribbean Conservation Association.

Date of initial submission of project concept: September 1997

16. Project Identification Number:

17. Implementing Agency contact person:

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18. Project Linkage To Implementing Agency Program(s):

The proposed project is consistent with the World Bank Country Assistance Strategy and with the government's economic and social program and investment priorities (Agenda Venezuela) which focuses on: (i) enhancing sustainable growth with stability, which includes promoting and integrating sustainable environmental management, (ii) promoting social development, and (iii) modernizing the public sector. The proposed project is consistent with the Bank/Government dialogue to decentralize some activities, particularly as they pertain to sustainable development, conservation, and poverty alleviation to the NGO sector. The Bank is also supporting environmental objectives through two projects: INPARQUES (13974-VE) for US\$55 million that strengthens the capability of the Government to manage Venezuela's national and urban parks, natural monuments, wildlife refuges and reserves, and the Environmental Management and Cartography Project (17130-VE) for US\$28 million that strengthens environmental management such that it contributes to the socio-economic development of the country.

Project Rationale and Objectives

FUDENA seeks to contribute to the protection and conservation of the biodiversity of the Llanos ecoregion of Venezuela through planning comprehensive strategies and implementing demonstration projects with public-private partnerships and community participation. Ecoregional conservation is a relatively new method of conservation that is favored by ecologists in numerous prestigious organizations such as World Wildlife Fund, The Nature Conservancy, and the World Conservation Union. An ecoregion is a large parcel of land, or landscape, comprised of characteristic species, communities, and environmental conditions facing similar dynamic forces, both natural as well as anthropogenic. It is possible to set goals for conservation of biodiversity that are more viable and strategic at the ecoregional level, rather than ecosystem by ecosystem. Ecoregional decision-making focuses on the conservation of biodiversity, requires multidisciplinary inputs, involves stakeholders, depends on an understanding of socioeconomic factors, and makes a compromise to seek solutions for the long term.

Background

Venezuela is one of the ten most biologically diverse nations in the world as measured by species richness. This is due, in part, to the convergence of four major biogeographic regions: Caribbean, Andean, Guyana and Amazonian. The continental territory of Venezuela contains a highly heterogeneous group of habitats, of which the following deserve special mention: Andean montane forests and páramos; montane forests of the Coastal Cordillera; arid and semi-arid zones of the north-west (La Guajira and Paraguaná); coastal and island ecosystems; seasonally flooded Llanos; forests, revering and delta ecosystems of the Orinoco Delta; and humid tropical forests, savannas and table-mountain (Pantepui) ecosystems of the Guayana and Amazonia. In addition, Venezuela contains 750,000 sq. km. of marine territory with associated rich biodiversity. Some 150 vegetation formations are recognized. Approximately 20,000 species of higher plants have been identified, of which 5,000 are considered endemic. National fauna inventories include 1195 species of fish, 113 species of amphibians, 332 species of reptiles, 1308 species of birds and 315 species of mammals (of which 15 are endemic and 18 are considered in danger of extinction).

Biodiversity Management - In trying to protect the use of biodiversity and natural resources, a national park and refuge system, covering more than 18% of national territory, has been created. Land Use and Management Plans are meant to control and regulate the use of natural resources. Natural resource management is provided by the Ministry for the Environment and Renewable Natural Resources (MARNR): the National Institute of Parks (INPARQUES), Venezuelan Wildlife Service (PROFAUNA), Venezuelan Forestry Service (SEFORVEN), the Autonomous Service for Sustainable Development of the Amazon State (SADA-AMAZONAS), the Botanical Institute (FIBV), the National Center for the Conservation of Phylogenetic Resources (CNCRF). As a result of a decentralization effort universities and non-governmental organizations will be responsible for implementing biodiversity research and management activities. There are several non-governmental organizations with considerable expertise in biodiversity planning and management and research including, FUDENA and ASOMUSEO/BIOCENRO. Venezuela has a strong university tradition and highly qualified professionals are available in the fields of ecology, forestry and agriculture. The Ninth National Plan acknowledges the importance of biological diversity for the nation and establishes general guidelines for its conservation and sustainable use.

Policy and Institutional Context - The Venezuelan legal system is quite advanced in terms of environmental protection. The Organic Law of Central Administration invests the Ministry for the

Environment and Renewable Natural Resources (MARNR) with responsibility for conservation and sustainable use of biodiversity. Major environmental laws include the Law of Territorial Planning, Law of the Environment, and the Penal Law of the Environment. Venezuela is also party to numerous international conventions and agreements which have been ratified by the Venezuelan Congress, including the Convention on Biological Diversity. A National Biodiversity Strategy is being written as part of a GEF grant to the Ministry of the Environment. However, there is a limited tradition of enforcement due in large part to funding problems, a need to improve communication and cooperation among Ministries and a lack of a definitive environmental policy by the government. The National Plan for Territorial land Use does not, for example, address protection fauna or flora outside the Areas Under Special Regulation (ABRAES) such as National Parks and Forest Reserves. Moreover, other conflicting objectives in the plan would likely have an adverse impact on biodiversity. Proposed biodiversity legislation has not had sufficient support to be approved as a law. Most significantly, there is not a sufficiently effective institutional mechanism to ensure that the public and private sectors take biodiversity concerns into account in decision-making.

Los Llanos - The Plains Of Venezuela - The inland prairies known as the Llanos (plains) represent close to one-third of the Venezuelan territory. The area includes one of the largest and most complex freshwater ecosystems on earth, that of a large part of the Orinoco River watershed, and one of the most important neotropical wetland ecosystems. The entire ecoregion from Colombia to Venezuela comprises a large area of 355,112 km², of which 240,000 Km² (68%) occur in Venezuela. This is not a homogenous savanna; a variety of ecosystems occur in Los Llanos, including tropical dry forests, forested wetlands, marshes, riverine flood plains, and even sand dunes. During the rainy season from May to November, the Orinoco floods and backs up the northern rivers, which then spill onto the flat plains, making huge lakes out of the savanna landscapes. During the six month long rainy season, in the southern Llanos travel by land is impossible and at the peak of the dry season the land is parched and the rivers and wetlands are the only sources of life. The ecoregion is located in the most recent geological formation of South America, formerly an inland sea filled by the silt washed from the Andes with hills of tectonic origin, making it a valuable area of study geologically and botanically.

There are three national parks which total approximately 13,000 km², five wildlife refuges, as well as two hydrologic reserves and four forest reserves in the ecoregion. However these areas of particular biological and ecological importance are under strong pressure from logging and agriculture. They have yet to implement their management plans and they do not have adequate staff for their protection. There are also six major haciendas, or hatos, for ecotourism which total 31,200 km² or approximately 11% of the ecoregion, as well as many other sizeable properties that could potentially form a significant contribution to biodiversity conservation if they were so committed.

Biodiversity of the Llanos - The Llanos ecoregion is home to more than 100 species of mammals, 350 birds, including endemics and a number of international migrants, 600 fish, 67 reptiles, 26 amphibians, and between 2000 and 4000 vegetative species (Mondolfi 1993; Ramo & Ayazaguena 1983; GEF workshop FUDENA, 1998). Only 49 species of fish in the Apure river basin are responsible for US\$29 million of commerce and 7 species make up 80% of that commerce (ibid. 1998; Royeri, personal comm^{*}). As the area has not been completely inventoried, endemic species

^{*} Royeri, consultant to the Ministry of Agriculture, and Blanca Bottini, Ministry of Agriculture, made this statement during the PDF experts workshop on September 24, 1998.

of birds, reptiles, and flora are still being found. The Llanos provide habitat for a variety of rare and threatened species: 23 mammals, 15 birds and five reptiles (Rodriguez & Rojas-Suarez, 1995). Rare species include the Pink River Dolphin, the Manatee, Jaguar, Ocelot, Giant Armadillo, Giant Anteater, Long-Haired Spider Monkey, and Giant River Otter. The extensive wetlands are valuable for the biodiversity they support, including potential medicinal species (plants and chemicals from frogs); other natural products such as food and wood; control of water quality and quantity; flood control.

Numerous scientific sources concur that the Llanos is one of the most important wetland and freshwater ecosystems in South America. The Llanos was named as one of the 200 Globally Important Ecoregions of the World Wide Fund for Nature Living Planet Campaign and was designated bioregionally outstanding within the Neotropical region by the joint World Bank/World Wildlife Fund priority setting exercise for the LAC region (Dinerstein et al., 1995). Although Dinerstein et al. rank the Llanos as relatively stable with regards to threat, assessments of the region and participants in that effort disagree, considering conservation in the Llanos more of a priority than in the Venezuelan Amazon which has a very low threat. At numerous national level prioritization efforts, this region has been ranked as a high priority ecoregion (second after the Andes) for its biodiversity and level of threat (MARNR, 1990). The Llanos is a tremendously valuable ecoregion not only in terms of its biology, but also for social, cultural, and economic reasons nationally and globally.

Accurate knowledge of these ecosystems is necessary to understand their real value and internalize their importance within decision-making processes at the individual, local and national level. With support from World Wildlife Fund - US (WWF), FUDENA conducted a rapid environmental, economic, and social assessment of the four sub-regions of the Venezuelan Llanos, including the conservation status of important species and habitats. These assessments involved meetings with local stakeholders and experts. Additional meetings for validation and prioritization with experts and regional stakeholders supported the findings that the main environmental problems in the Llanos are degradation and destruction of habitat primarily by deforestation and agricultural activities. The Low Llanos, flooded for almost half of the year, are among the economically poorest regions of Venezuela and the whole ecoregion requires substantial support in basic services and education.

The main economic activities in the Llanos are cattle ranching, forestry, agriculture and animal husbandry, gravel mining, and oil exploration and production. Crops include corn, banana, plantain, tobacco, rice, cotton, cashew, sugar cane, beans, sorghum, and coffee (Cartografia Nacional 1990). Among the root causes of environmental problems are: unsustainable agricultural practices; forestry practices; urbanization; poverty; lack of conscientiousness about environmental laws, protected areas, and the values of natural resources; the financial crisis of Venezuela; lack of enforcement of environmental laws, lack of oversight over "protected areas;" accidents from petroleum activities; and poor mining (mineral and non-mineral) practices that contaminate or destroy the environment.

Threats

Mining Activities -- Extraction of oil resources from the basin that stretches from the Delta into the Llanos is one of the major goals of the national land use plan. (See Map 1.) Recently, Venezuela has opened the region to the international oil industry for exploration and extraction activities in the "Apertura Petrolera." Already there have been numerous accidents releasing contaminants into the

environment. Mining of gravel and sand in Llanos riverbeds has degraded the aquatic ecosystems (FUDENA, 1998).

Hydrologic Changes – Other objectives in the National Land Use Plan include channelization of the Apure and Orinoco rivers that transverse the Llanos and other alterations of the hydrology and riverine ecosystem for fluvial transportation and hydroelectricity. Hydrologic changes for agriculture and cattle ranching block corridors of movement of aquatic species. Such disturbance of water flows has negative and potentially severe ramifications for biodiversity. Further disturbance may occur as a consequence of infrastructural development, including road construction and agricultural development.

Deforestation -- The biodiversity of the Llanos has been and continues to be degraded due to uncontrolled deforestation for removal of commercially valuable wood and firewood, expansion of agriculture, slash and burn agriculture, and cattle ranching and wildfires. Already 80% of the original forests in the central and western Llanos have been eliminated.

Water Pollution -- Contamination from urban and industrial wastewater, agricultural chemicals, including DDT and other toxic organochlorides, erosion from agricultural, forestry, and urban activities, are all important threats to the aquatic habitat of the Llanos (MARNR 1997). Experts from the Ministry of Agriculture and associated institutes (FONAIAP) expressed concern about the high levels of agricultural chemicals used as herbicides and pesticides in the production of rice and other crops in the rivers of the central Llanos. According to reports by the Ministry of the Environment and Armed Forces Laboratory (FAC 1997) and CONICIT (1994) the high contamination with Lindane, Aldrin, DDE and DDT may be generating health problems in the Llanos including birth defects, miscarriages, respiratory ailments, as high levels of contamination of maternal blood and milk with these agrochemicals have been found.

These factors add urgency to the need to ensure the sustainable management of these ecosystems, to conserve biodiversity and to educate citizens and decision makers about the values of the ecosystems of the Llanos so that they become partners in the process. Institutional mechanisms alone do not ensure that the public and private sectors minimize activities that degrade or destroy the environment. Local programs at the community level that address root causes of biodiversity loss are essential to conserve and sustainably manage a biodiversity that is valued globally.

Current Situation

Currently the government is in the process of decentralizing the Ministry of the Environment (MARNR) and changing its role to one of director rather than executor of activities. A large percentage of environmental projects are funded by the private sector; in particular, the oil industry, tobacco, and beer; and the government has indicated that this should increase as such activities are not to be the function of MARNR. In accordance with decentralization and the goal to involve NGOs in achieving biodiversity objectives, this FUDENA project can serve as a regional pilot project to demonstrate strategies and actions to achieve biodiversity conservation at the ecoregional level. There are studies underway by the National park service (INPARQUES) funded by the World Bank to review and strengthen the infrastructure of the most visited national parks but these do not include the parks in the Llanos. Adequate funding for management of national parks and other protected areas remains a major obstacle. The current economic crisis resulting from less income than expected as a result of the low cost of a barrel of oil has resulted in reduced budgets. The shift

of responsibility to state governments in a decentralization campaign by the national government have left many areas in need of support.

There have been discussions and workshops on Venezuelan biodiversity priorities over the past 8 years as well as a development of a national wetlands conservation strategy by an IUCN working group on wetlands (MARNR 1990, MARNR 1996, MARNR 1998). Currently the Ministry of the Environment and BIOCENRO, part of the University of the Llanos (UNELLEZ) are working to produce a National Biodiversity Strategy with GEF funds. Universities such as UNELLEZ, Universidad Romero Gallegos, Universidad Simon Bolivar, Universidad del Oriente, Universidad Central de Venezuela support research and management projects in the Llanos. Government agencies, NGOs and institutes such as FUDENA, CENDI, The Venezuelan Institute for Scientific Research (IVIC), Botanical Institute (FIBV), Audubon Conservation Society, EcoNatura and others also have supported or conducted research and developed projects to contribute to biological research, sustainable development projects, improvement of agricultural practices, and environmental education in the Llanos. These efforts have lead to a baseline of information about the biodiversity of fauna, endangered species, and threats to conservation. The national science research agency, CONICIT, finances or directs multilateral funding to basic scientific assessments but overall there is little coherency among the efforts of all these actors or publication of information.

Rural development programs and environmental programs are largely funded by international organizations, embassies, multilateral organizations, the private sector or the government oil company, PDVSA and implemented by NGOs. Lost oil revenues are therefore starting to affect funding of environmental and social programs by PDVSA. Some regional offices of the State water agency conduct watershed management programs that include forest protection and reforestation as well as educational activities. This GEF funded FUDENA project could raise awareness that not only are wetlands essential parts of watershed management programs but they have their own values that need to be protected from over use. The major projects currently underway in the Llanos include:

- Fundacion LaSalle - basic ichthyology (fish) science research on species and populations
- BIOCENRO - Biodiversity in the state of Portuguesa; evaluation
- CENDI — Sustainable agriculture with campesinos in the State of Portuguesa
- MARNR — Evaluation of flora in the Camaguan wetlands and evaluation of forests in the western Llanos.

Funding of \$619,000 is being provided by other sponsors to the above-mentioned institutes and researchers that conduct ongoing research on fauna and flora of the Llanos, produce vegetation maps that include the Llanos, and conduct training programs. These efforts will provide information to the proposed FUDENA program.

The proposed project is fully consistent with national environment and development policies and sustainable development strategies. In addition, Director of Biodiversity, leading the National Biodiversity Action Strategy for Venezuela, currently under preparation, considers this project an important regional pilot project and an important area given the high level of threat (Rodriguez, pers. Comm)**. The FUDENA/GEF project would meet the goal of the Ministry of the Environment to mainstream biodiversity conservation at the macro and project levels. FUDENA

**Delfina Rodriguez made this statement during the PDF experts workshop on September 24, 1998

intends to support the Ministry in building the capacity for biodiversity conservation as a demonstration effort through this project in the ecoregion of the Llanos.

The ecoregion strategy proposed by FUDENA would obtain information from past and current studies and could provide needed prioritization and guidance for all decision-makers and research institutions. The proposed GEF funding would provide the additional support needed to integrate natural resource, demographic, and land use information into a useful tool for planning and decision making that is supportive of the goals and objectives of the national government and states as well as protective of global biodiversity values.

Local partnerships and project co-management are a critical link in this process as a wide range of interested parties from all sectors are generally involved in implementing and managing projects over time. There is a need to fund other approaches to conventional government protected areas management, to apply the results of scientific assessments, and to implement alternative or supplementary activities that involve communities in conservation and environmental protection. Planning across states is essential, since ecosystems functions, flora and fauna transcend political boundaries. NGOs can play a pivotal role in promoting cross-sectoral approaches, as they have are not constrained by politico-administrative boundaries and have the ability to respond more quickly to changed circumstances and lessons learned from on-going projects. FUDENA is one of the few NGOs in Venezuela with the experience to produce the results expected for a project of this size and type, with global, national, and local benefits through local action.

Discussions during the workshops funded by the GEF PDF A yielded priorities over the next 1-3 years and 3-5 years: despite some floral inventories (see above) there is a need to improve knowledge about the flora of the Llanos and government and scientific stakeholders recommended that this area must be filled, and soon, to ensure conservation of biodiversity and better target solutions. Other recommendations for priority (1-3 years) activities include: to improve the exchange of information, training, and case studies on conservation; to build capacity and interest in watershed management; to research Llanos vegetation, including potential sustainable uses and agroforestry of native species; to involve indigenous people in resource management; to provide an alternative to slash and burn agriculture and promote natural resource management by *campesinos*; to inculcate a greater consciousness (value) of the range of ecosystems and natural resources of the Llanos; and, to stimulate multisectorial participation in conservation.

Preparatory activities that have been already completed include:

- 1) Preliminary socioeconomic evaluation (Arteaga & Herrera, eds. (FUDENA) 1998).
- 2) Preliminary rapid evaluation of threats and opportunities for conservation in the Llanos ecoregion (Arteaga & Herrera 1998).
- 3) Regional meetings with stakeholders to set priorities (GEF PDF A.)
- 4) Rapid evaluation of the current state of knowledge about biodiversity, threats, needs and priorities for conservation in the Llanos of Venezuela through workshops and meetings with experts (during GEF PDF A).

Project Objectives And Outcomes

The main objective of this project is to contribute to the protection and conservation of the biodiversity of the ecoregion of Los Llanos of Venezuela. FUDENA will develop a set of

comprehensive management strategies, an action plan, for conservation of biodiversity in the ecoregion developed through biological and socioeconomic assessments, partnerships with the private sector, and community participation and will implement pilot projects that initiate an evaluation of potential conservation strategies.

The project activities will be carried out over a period of three years. At the end of this project the following outputs are expected:

- (1) Biodiversity conservation assessment program, including Geographic Information System, Environmental Information System, scientific assessments, sociological assessment, and maps of biodiversity resources.
- (2) Socioeconomic Assessment.
- (3) Action plan for Conservation of the Biodiversity of the Llanos Ecoregion.
- (4) Pilot projects to broaden public and private sector interest and involvement in biodiversity conservation and management of the Llanos ecoregion:
 - (i) environmental education and awareness raising on Conservation and Sustainable Use of the Llanos ecoregion for decision makers and civic leaders
 - (ii) alternatives to slash and burn agriculture: sustainable use and conservation of biodiversity in subsistence-level agriculture
 - (iii) partnerships for conservation of biodiversity with owners of cattle ranches in the central states of the ecoregion
- (5) Fund raising.

In order to achieve project objectives, the following activities will be implemented:

1) Biodiversity Conservation and Sustainable Use Program

The project would finance consultants, studies, data collection, and surveys, to produce an integrated biodiversity assessment, GIS map production, and an Environmental Information System, to serve as tools to better assess the scale and extent of threatened species and biodiversity across the ecoregion and means to manage threats to wetlands in the ecoregion, critical habitats for preservation of biological diversity, areas with high expected persistence, highly threatened areas, and indicators of biodiversity. Other studies would include an assessment of the sustainable use of native tree species with commercial value, traditional use of vegetation, and fauna with commercial value. This information would be the basis for ecoregional planning and decision making.

Deliverables: Checklists and bibliographies of the biodiversity of flora (for publication) and fauna of the Llanos. Comprehensive maps of the Llanos would be provided, illustrating area geography, providing information on the distribution of habitats, and showing the spatial distribution of threats and biological hot spots. A guide to the Llanos ecoregion, biodiversity conservation and sustainable management would summarize data on the biodiversity of the ecoregion and relevant experts, and on threats to biodiversity and their underlying causes; review protected area coverage and private areas providing protection; evaluate sustainable use activities promoted by the national and state governments such as captive breeding and agroforestry; and provide recommendations regarding conservation management in the form of feasible strategies. Scientific assessments, meetings with experts, literature review, publication of results.

Timeline: 18 months

GIS and Mapping:

Timeline: 10 months

Environmental Information Website

Timeline: 6 months (includes putting Action Plan on line)

Cofinancing: FUDENA, FIBV, UNELLEZ

GEF Alternative - \$1,281,900; Baseline - \$1,000,000; GEF incremental costs - \$281,900

2) Socio-economic Assessments and Participation

The project would support social/anthropological evaluations to assess land tenancy conflicts, sustainable use and resource management of wetland biodiversity by indigenous and rural peoples in the Llanos. This information would assist in understanding their use of biodiversity and how these populations can be partners in conservation.

Deliverables: Social and anthropological assessment (ethnobotanical and ethnozoological), with clear description of past research, methodologies employed, outline and description of the community and key stakeholders, with social data and analyses, and recommendations for encouraging indigenous and rural peoples participation in ecoregion conservation activities.

Timeline: 12 months

Cofinancing: FUDENA

GEF Alternative - \$176,000; Baseline - \$100,000; GEF incremental costs - \$76,000

3) Ecoregional Conservation Program

The project will support an effort to develop a comprehensive set of strategies for conservation of ecoregional biodiversity. This will depend on participation by stakeholders in educational and training workshops. NGOs and other relevant organizations active in research, conservation, and educational activities in the Llanos would be consulted. Other stakeholders in private industry would also be part of the multisectoral working group. A detailed review of solutions to the threats to the biological diversity of the Llanos would be undertaken. This assessment will build on earlier studies of the biology and geography, socioeconomic and political situation of the Llanos and the results of stakeholder consultations. A comprehensive set of recommendations regarding management measures would be developed, that would form the framework for designing medium to long term strategies (3-5 and 5-10 years). The assessment would also make appropriate recommendations regarding the establishment of new conservation areas or expansion of existing ones to ensure that biodiversity hot spots are accorded adequate protection.

Deliverables: The guide will provide recommendations and rationale for conservation and watershed management as well as information still needed to support decision making and prioritization at all levels by a variety of users. The guide and information about key actors, researchers, and projects would be loaded onto FUDENA's web site to make the information accessible to the national and international community.

Successful implementation of the strategies recommended in the Guide will depend on stakeholder participation, including the various actors pursuing biodiversity research, management, and decision making activities. This will be accomplished through the network of environmental NGOs, discussions during training activities, meetings with stakeholders in each state and through

feedback by stakeholders through interviews, questionnaires, over the Internet and meetings. A key part of the plan is identifying means to involve the private sector in conservation of biodiversity.

Timeline: 12 months

Cofinancing: FUDENA

GEF Alternative - \$84,000; Baseline - \$0; GEF incremental costs - \$84,000

4) Pilot Projects

a) *Education, Awareness Raising and Capacity Building about Conservation and Sustainable Use of the Biodiversity of the Llanos Ecoregion:* The project would finance the development of a series of information materials and training workshops for decision makers in each state of the Llanos and a guide for decision makers to conserve the biodiversity and maintain ecosystem integrity given the need for sustainable development. Watershed management could be a more comprehensible proxy for ecoregion management.

The project would finance participatory Capacity Building and Environmental Education seminars on conservation needs and solutions for the Llanos ecoregion directed at Educators, Conservation Promoters, the National Guard and Civic Leaders. FUDENA and its partners would also implement three replicable conservation education and capacity building demonstration projects in the western Llanos (Acarigua), central Llanos (in Guarico) and the eastern Llanos (Maturin). The project would strengthen the efforts of local educators to raise awareness about the biological aspects of the Llanos and the need for conservation, watershed management and sustainable use. It would increase the number of Venezuelans at the national and local levels that consider conservation and biodiversity of the Llanos to be important and know why the ecosystems of the Llanos are valuable. An important tool for capacity building and exchange of information could be the production of a newsletter, "Llaneran Solutions," distributed to civil organizations, universities, RedARA and other networks of environmental organizations and organizations for environmental educators for case studies and strategies for conservation education and project management capacity building.

Conservation topics would include the Llanos environment, endangered species, wetlands, watershed management, environmental laws, conservation, fire prevention and control, sustainable agriculture, forestry, and fisheries. Environmental Project Management topics would include proposal formulation, fund raising, project management, communication and evaluation. Such training is necessary for the involvement of stakeholders in ecoregional planning and conservation of the biodiversity of the Llanos.

Deliverables: Educational materials, newsletter, press articles or radio broadcast messages. Quarterly and final report on the pilot project activities, number of people involved, outcomes, and lessons learned.

Cofinancing: FUDENA, Geografia Viva, Tierra Viva, Econatura

b) *Alternatives to Slash and Burn:* The project would strengthen a program on alternatives to slash and burn agriculture: sustainable use and conservation of biodiversity in subsistence-level agriculture and broaden participation to other communities in the Llanos. FUDENA's local partner is CENDIGRANJA, affiliated with the University of the Llanos (UNELLEZ). The program has already reached 8000 campesinos in a hands-on informal education program and communication campaign. The program promotes the active participation of campesinos in identifying multiple uses of biodiversity, appropriate technology, organic agriculture and conservation methods, while

stimulating reforestation, fire prevention, and watershed protection. The basis of this program is that sustainable use of biodiversity provides economic benefits to the *campesino* as well as protection of the environment. This program provides a means of protection for the highly threatened forests of the Llanos (dry tropical broadleaf) which provide important corridors and harbor biodiversity and seeks campesino involvement in the protection of watersheds and headwaters of the rivers and wetlands of the Llanos.

Cofinancing: CENDIgranja

Timeline: 3 years

c) **Private Sector Partnerships:** The project would provide the resources to enhance conservation of biodiversity in the Llanos through the efforts of private land owners. FUDENA would work with Manfauna, Econatura and Audubon and various local organizations to build partnerships for conservation with private land owners. Already there are seven major cattle ranches which also provide ecotourism in the central states of the ecoregion and therefore provide conservation benefits over a land area of 31,200 square kilometers, approximately 12% of the Llanos. This funding would provide the opportunity to educate these stakeholders and to work with them and with other private land owners to further protect biological corridors and important areas of biodiversity, raise conservation awareness through an educational effort, improve the educational opportunity of the ecotourism lodges, publicly recognize the benefits of the ecotourism ranches, and develop a cadre of environmentally responsible cattle ranchers and large land owners.

Deliverables: Educational materials, press release and press articles, report on the pilot project activities and outcomes and an analysis of strengths, weaknesses, opportunities and threats for an ecoregion-wide privately owned protected areas system. These activities will complement other efforts by the government and non-governmental organizations to address the root causes of biodiversity loss. Successful protection and conservation of biodiversity and the sustainability of this project require coordination and dialogue with public agencies, local and national government agencies, businesses, non-governmental organizations, communities, and academic institutions.

Cofinancing: EcoNatura

Timeline: 2 years

Financing for This Component will be disbursed to the pilot projects as follows:

(US\$,000)

Pilot Project	GEF Alternative Total Cost	Baseline	GEF Incremental Costs
Education, Awareness Raising and Capacity Building	\$259	\$58	\$177
Sustainable Agriculture	\$242	\$193	\$78
Private Sector Partnerships	\$66	\$19	\$42
Total	\$567	\$270	\$297

GEF Alternative - \$567,000; Baseline - \$270,000; GEF incremental costs - \$297,000

5) Fund Raising Program

The project will support activities to raise funds for future projects and activities to ensure long term sustainability of conservation activities and implementation of strategies of the *Llanos Ecoregion Conservation Guide*. Methods include sales, fund-raisers and to prepare proposals to

international foundations and financing entities. Immediate attention will focus on two areas of global importance with regards to the biodiversity of the Llanos (used by migratory birds and many endangered species):

- **Apure River Watershed (conservation of Low Llanos wetland ecosystems)**
- **Central and eastern Llanos tropical dry forests and wetlands**

Deliverables: Agreed co-financing for project activities, with evidence of leveraging.

Cofinancing: FUDENA

Timeline: 3 years

GEF Alternative - \$320,000; Baseline - \$120,000; GEF incremental costs - \$200,000

Sustainability Analysis And Risk Assessment

Factors for success:

FUDENA has 23 successful years of experience in conducting similar activities while working with the National Park Service, Ministry of the Environment, other NGOs, and the media. FUDENA is the foremost Venezuelan NGO in research, planning and execution of plans, information management, communication and environmental training activities. The following activities are designed to sustain biodiversity conservation management in the Llanos:

- a) raising awareness at the community level as well as the national level about the values of ecosystems, biodiversity, and conservation of the Llanos so that citizens can contribute to conservation efforts and make informed decisions for the long-term;
- b) training government personnel in environmental laws and requirements will lead to improved vigilance;
- c) training leaders in skills such as management and decision making such that they can execute projects that promote biodiversity management will ensure that conservation efforts continue;
- d) linking project initiatives with national, state, and local government programs and needs ensures consistency and interest in continuity;
- e) ensuring that project initiatives are viable on a long term given socioeconomic realities;
- f) design of local resource mobilization strategies through fundraising, training community leaders to raise funds, making linkages between local development organizations and conservation efforts, and raising funds through ecotourism efforts;
- g) cooperative efforts with NGOs and civic associations with years of experience and proven success.

Project risks include the economic crisis and therefore decisions based on short-term economic needs without consideration of long-term costs. The project will facilitate workshops with government officials and citizens that will discuss the importance of conservation for long-term and short-term reasons. The primary threat to the environment from the economic crisis is oil extraction and there already is a policy of oil companies operating in Venezuela to conduct activities in as sensitive a manner as possible. Indeed, oil companies are an important source of funding for environmental programs. The economic crisis also puts a burden on the government and therefore a project which supports self-sufficiency of communities and local efforts of the non-governmental sector is critical.

Another risk is failure to implement ecoregional plan strategies. Planning at the national level has more risk than at the local level as the national level is more removed from daily environmental realities. Funding by the World Bank of a variety of projects related to biodiversity planning and conservation in Venezuela creates links that reduce the risk of failure of one project standing alone. The project's reliance on a methodology that fully involves local NGOs in planning and that builds local NGO capacity through implementation of environmental projects included in the ecoregional strategy, will reduce the risk of non-implementation of the ecoregional plan and will strengthen support for long term conservation.

Public Involvement Plan

Stakeholder Involvement And Social Assessment

Social Assessment -- The initial social assessment found the alleviation of poverty and employment are essential for the population in this region of Venezuela and are the major root causes for biodiversity loss (Arteaga & Herrera, eds. 1998). The Index for Human Development is medium (OCEI 1997). There is a high level of illiteracy (15 - 20 %) in the Llanos versus 10% in Venezuela as a whole, and thus a need to educate and train the population at all levels and in every sector. The government must clarify property rights and land tenancy particularly in relation to the boundaries and use of national parks and other protected areas by local populations. Basic services (potable water, sewage, electricity) are lacking for many.

Stakeholder Identification -- Stakeholders can be divided into six groups: rural *campesinos*, and the general Llaneran public represented by mayors and governors, civic associations and NGOs, cattle ranchers and other large land owners, agriculture, forestry, and oil development, represented by their respective industry associations; the Venezuelan public - represented by environmental groups and educators; the Venezuelan government - represented by the Ministry of Environment and Natural Resources, by the Ministry of Agriculture and Ministry of Tourism; the academic and environmental community, represented by Universities, Institutes, and environmental NGOs, and the international community, represented by tourists, international scientists, and international NGOs.

The Venezuelan public will be represented in the project by FUDENA a private-sector environmental interest group, who will execute most or all of the project's activities during the implementation phase. Other associated groups that will assist in implementation include CENDI, EcoNatura, and Tierra Viva NGOs with a focus on sustainable development and institutional capacity building. In addition, RedARA, a consortium of 40 local environmental NGOs and a respected environmental watchdog group, will be invited to participate in the workshops. Long term sustainability will be enhanced by including universities in planning and implementation efforts.

The economic interests of the rural poor will be represented by CENDI, Geografía Viva and Econatura, both of whom are non-profit foundations that will execute certain project activities, and are interested in the sustainable development of Venezuela's biodiversity. The Venezuelan Government's involvement in the project is manifest in the involvement as a member of the steering committee of the project through the office of Biodiversity. Furthermore, one representative each from the Ministry of Agriculture, the National Parks Service (INPARQUES), Tourism, the National Center for Agricultural Technology (FONAIAP), the National Commission on Science and Technology (CONICIT), will be invited to the multisectorial committee meetings.

Stakeholder Involvement -- FUDENA has conducted a preliminary assessment, meetings and workshops to achieve stakeholder involvement in preparation for this project. Local participation in environmental and economic development projects is one of the weaknesses in the Llanos. However, there are diverse organizations and sectors that are interested in conservation that can be allies for promotion of conservation and implementation of projects. Among the reasons that participation is low are the level of unemployment, poverty, illiteracy, poor education, inadequate basic services and low rate of completion of projects or execution of promises by political figures. FUDENA used preparation funding from the World Wildlife Fund and from the GEF (Block grant of \$25,000), as well as more than ten years of work with stakeholder groups to enhance conservation of the Morrocoy National Park and Cuare Wildlife Refuge (Chichiriviche, Venezuela) to evaluate stakeholders and methods to enhance stakeholder involvement in conservation. Lessons learned from public involvement activities for the Cuare Wildlife Refuge project (FUDENA administers the refuge and all the educational and public involvement activities in the area) will be used to implement this project as education levels and level of need for environmental conservation and economic development are sufficiently similar. Stakeholders indicated their disapproval and lack of interest in the all day workshop format of public involvement during the PDF A activities. Small group meetings or discussions that are part of educational programs that yield tools at the end of the day were found to be much more successful.

A public with an understanding of conservation and sustainable development and the involvement of local and state lawmakers is critical to the medium to long term success of the project. The communication, training, and planning strategies are meant to involve stakeholders at all phases of the project. An evaluation of stakeholder involvement and will be conducted at the end of the project and pre-post diagnostics will be used during training to develop "lessons learned" for other similar efforts. FUDENA, and its main partners for environmental training activities CENDI and Tierra Viva have each developed appropriate methodologies ("learning by doing") which are community based and stakeholder driven. CENDI, the organization that will focus on the *campesino* level, develops all its materials and methods to assure accessibility by illiterate adults and building self-esteem in all users.

The project structure depends on involvement with stakeholders. In addition there will be 9 multisectoral steering committee meetings (3 each year) organized and ten regional stakeholder workshops on ecoregional planning that are part of the training program. Stakeholders will be asked to participate in drafting objectives and strategies and to evaluate the draft plan and to provide comments. There will also be a press conference at the end of the project to release the ecoregional action plan. Consultation and communication will be part of multisectoral training sessions. The goal is to support the development of multisector advisory and action groups in the four regions of the Llanos to increase cross-fertilization of ideas and to develop solutions at the local and regional level.

Linkages With Other GEF Interventions

A project for Protection and Sustainable Use of Biological Diversity in the Orinoco Delta Wetlands is under preparation by UNDP and the Desarrollo Armonico del Oriente (DAO) of the national Venezuelan oil company PDVSA. This project will take a two-pronged approach (i) to strengthen management within existing protected areas and (ii) to ensure that development activities within the protective landscape are congruent with the objectives of biodiversity conservation. Preparation is currently underway, with support from a GEF PDF Block B.

The DAO and FUDENA initiatives are complementary for a number of reasons -- the Delta area contains different ecoregions to the Llanos. The Llanos region lies to the West of the Delta. The main focus of activities of the MSP will be in Apure, Barinas, Portuguesa, Cojedes and Guárico provinces, although educational seminars will also be held in Anzoategui and Monagas. The two initiatives also address different biodiversity and conservation concerns: for example, FUDENA is focusing on strengthening conservation by the private sector and civil society outside of protected areas. As the Apure river is an important tributary of the Orinoco, MSP activities will have a positive impact on conservation efforts in the Delta.

Recognizing these complementarities, FUDENA has worked with UNDP during preparation of the project proposal, clarifying the management objectives and scope of the two initiatives and seeks to continue the relationship by sharing experiences and lessons. This proposal has been prepared following discussions with UNDP.

Financing Plan And Incremental Cost Assessment

Incremental Cost Assessment

The **baseline scenario** for the Llanos Ecoregion Biodiversity Conservation Project would comprise a program of biodiversity conservation and education activities within the financial resources available to FUDENA, Fundacion Botanico (FIBV), and other interested donors and local organizations. Resources available for the baseline program total \$1,490,000, broken down as follows: (a) biodiversity conservation and sustainable use program - \$950,000; (b) socioeconomic research program - \$100,000; (c) pilot projects - \$230,000; and (d) fund raising program - \$210,000. Baseline co-financing of \$600,000 will be contributed by UNELLEZ and the Botanical Institute Foundation, and an additional US \$880,000 will be contributed (as equipment, materials, facilities, and personnel) by FUDENA, World Wildlife Fund, CENDI, Econatura, Tierra Viva, Geografia Viva, and small private donors, to conduct research, mapping, training, and fundraising for this project, for a total of US\$1,490,000.

The baseline scenario would make possible biodiversity and socioeconomic assessments of the Llanos ecoregion, and minimal pilot projects to enhance environmental awareness, sustainable agriculture and partnerships with private landowners, as well as some fundraising. However, under the baseline scenario, funding would not be sufficient to assure that indigenous people would be adequately involved in resource management, that the training and outreach necessary for the involvement of stakeholders in ecoregional planning and biodiversity conservation would reach a sufficiently broad spectrum of stakeholders, that broad integration and coherent coordination of scientific assessment projects could be achieved, or that environmental education and awareness-raising would effectively reach a significant number of decision-makers, especially owners of large land-holdings, and that program activities would be sustainable beyond the project period. Under the baseline scenario, it would not be possible to undertake the program of ecoregional conservation.

The **GEF Alternative** would comprise a program of scientific assessments, environmental education, and participatory involvement in planning and decision-making for biodiversity conservation, carried out over three years, which would include the additional resources for incremental cost funding from the GEF. The GEF Alternative, which will support implementation of demonstration projects that go beyond baseline activities to focus on activities that generate

global benefits, will allow a much more integrated and multidisciplinary approach to the conservation of Llanos biodiversity than would otherwise have been the case. The GEF Alternative, which comprises the baseline activities plus incremental activities which would not be undertaken without GEF intervention, would:

- allow the establishment of a program of ecoregional conservation, the scale of planning recommended by the World Wildlife Fund, IUCN, and World Bank as well as other experts, to enable more viable and strategic goals for biodiversity conservation;
- provide for a more appropriate and effective scale of pilot projects for targeted stakeholder involvement to address the root causes of biodiversity loss;
- significantly enhance the effectiveness and scope of outreach and education activities; and
- improve the long-term sustainability and implementation of the plans produced as project outcomes.

The activities proposed for GEF financing are complementary rather than substitutional in nature, adding to rather than modifying the baseline. The total cost of the GEF Alternative is US\$2,428,900, distributed in the following way: (a) biodiversity conservation and sustainable use program - \$1,281,900; (b) socioeconomic research program - \$176,000; (c) ecoregional conservation program - \$84,000; (d) pilot projects - \$567,000; and (e) fund raising program - \$320,000.

The incremental cost of the proposed project is US\$938,900. Consequently, GEF funding of US\$ 938,900 is requested to cover the incremental costs of MSP implementation.

Other co-financing for short, medium and long-term implementation of the action plan will be obtained through fund-raising activities during the project and contributions by associates.

Incremental Cost Assessment (US\$,000)

Components	Baseline Scenario			Proposed GEF Alternative	Increment Requested of GEF
	FUDENA	Other Donors	Total		
Biodiversity Conservation and Sustainable Use Program	\$400	\$600	\$1,000	\$1,281.9	\$281.9
Socio-economic Research Program	\$100	\$0	\$100	\$176	\$76
Ecoregional Conservation Program	\$0	\$0	\$0	\$84	\$84
Pilot Projects	\$100	\$170	\$270	\$567	\$297
Fundraising	\$100	\$20	\$120	\$320	\$200
TOTALS	\$700	\$790	\$1,490	\$2,428.9	\$938.9

Budget

The total cost of the MSP activities is estimated at \$2.43 million, of which the MSP proposers and partners would provide approximately 60% of needed project financing, and GEF would provide about 40%, corresponding to incremental costs. A breakdown of MSP project costs by expected outcome and by financier is provided on the next page.

Map Budget By Outcomes (US\$,000)

Components	FUNDING											Total financing	
	GEF	Co-financing											
		FUDENA	W W F	UNELLEZ	Botanico	CENDI	Geografia Viva	Tierra Viva	Econatura	Private	Total Co-financing		
Biodiversity Conservation and Sustainable Use Program	\$281.9	\$40.0		\$10.0	\$50.0							\$1,000	\$1,281.9
Socio-economic Research Program	\$76	\$10.0										\$100	\$176
Ecoregional Conservation Program	\$84											\$0	\$84
Pilot Projects	\$297	\$10.0				\$10.0	\$10	\$30	\$30			\$270	\$567
Fund Raising Program	\$200	\$10.0	\$10							\$10		\$120	\$320
TOTAL	\$938.9	\$70.0	\$10	\$10.0	\$50.0	\$10.0	\$10	\$30	\$30	\$10	\$1,490	\$2,428.9	

Eligibility

The full Project fits the eligibility parameters outlined in the GEF Operational Strategy and Operational Program number 2: Freshwater Ecosystems. Venezuela ratified the Convention on Biological Diversity in 1994, and is therefore an eligible country recipient. The project would secure important global environmental benefits, including the maintenance of vital ecological functions, and protection of important direct and indirect use, option, and existence values for biodiversity conservation.

Project Implementation

A full time Project Manager would be recruited to manage day to day activities, and would assume primary responsibility for the delivery of agreed outputs, including finalization of a detailed Work Plan, detailed Terms of Reference for Resource People and subcontractors, establishment and smooth operation of Project Steering Committee, mid-term and final report, recruitment of resource people and efficient project management. He/she would have technical training and experience in environmental education and the ecology of the Llanos systems, with an ability to perform diagnostic assessments and appraise conservation management requirements.

A regional coordinator will be identified and recruited. Detailed Terms of Reference for consultants will be prepared and a Work Plan will be finalized as a primary deliverable upon receiving initiation of the project. FUDENA will convene a Project Steering Committee, which would be responsible for project oversight and support cross-sectoral co-ordination. Resource personnel would be identified and recruited and backstopping provided for regional and national workshops and ancillary stakeholder consultations.

An overview of the three year project implementation plan is provided below. A detailed work plan is attached as Annex 1; this work plan is preliminary and will be further refined in the first months of project start-up.

Project Implementation Plan

DURATION OF PROJECT (IN MONTHS): 36						
ACTIVITIES	PROJECT-MONTHS					
	0	6	12	18	24	30
1. Project management	-----]					
2. Biodiversity and sustainable management evaluation (Ecoregion Guide)	-----]					
3. Socioeconomic Assessment	-----]					
4. Communications and Information Management	-----]					
5. Pilot Project: Training	-----]					
6. Pilot Project: Agriculture Alternatives	-----]					
7. Pilot Project: Conservation by the Private Sector — Ranchers	-----]					
8. Ecoregional Action Plan : Guide to Conservation and Sustainable Management of the Llanos Ecoregion	-----]					
9. Fundraising	-----]					
10. Evaluation (periodic, by steering committee, project manager, external team, and GEF manager)	-----]					

Information Dissemination and Consultation

Results of studies and progress in project activities will be presented in the media, in an informational bulletin, in a conference, in regional and international meetings, in press conferences. The Guide to the Ecoregion (report and action plan) will be available on the Internet, in the FUDENA Center for Documentation and Information (CEDIF), in the library of the University of the Llanos, in Biocentro and be in the MARNR Office of Biodiversity. Progress and results will be also published in the FUDENA quarterly bulletin and through partner publications (Red ARA, Red Latinoamericano de Bosques, World Wide Fund for Nature).

Monitoring and Evaluation Plan

Monitoring activities will include an annual report of activities planned and achieved, regular reporting every six months on the activities related to each component of the project. A mid-term

evaluation and a brief project completion report will also be prepared to take stock of project performance and extract lessons. Evaluation of all subcomponents will include assessments by participants as well as by the Steering Committee. Persons involved in other ecoregional conservation efforts of World Wildlife Fund will be asked to participate in an external evaluation of the project.

In depth and periodic biodiversity monitoring will be implemented by the Ministry of the Environment's future Office of Biodiversity as part of its charge. The Ministry, students and faculty in Venezuela's universities and other associates will be welcome to use the maps developed through project component 1.2 for monitoring change in vegetation and land use.

Procurement Arrangements

The Beneficiary is a non-profit private organization that will carry out the procurement in accordance with established local private sector or commercial practices, which were reviewed and found acceptable to the Bank pursuant to par. 3.12 of the Guidelines for Selection of Employment of Consultants and par. 3.12 and 3.15 of the Guidelines for Procurement. A detailed procurement framework will be agreed prior to final project approval.

Project Checklist

PROJECT ACTIVITY CATEGORIES			
Biodiversity	Climate Change	International Waters	Ozone Depletion
Protected area zoning/mgmt.: X	Efficient production & distribution:	Water body:	Monitoring:
Buffer zone development:	Efficient consumption:	Integrated land and water:	Country program:
Inventory/monitoring: X	Solar:	Contaminant:	ODS phaseout:
Ecotourism: X	Biomass:	Other:	Production:
Agro-biodiversity: X	Wind:		Other:
Trust fund(s):	Hydro:		
Benefit-sharing: X	Geothermal:		
Other:	Fuel cells:		
	Other:		
TECHNICAL CATEGORIES			
Institution building:	X		
Investments:			
Policy advice:			
Targeted research:	X		
Technical/management advice:	X		
Technology transfer:			
Awareness/information/training:	X		
Other:			

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ANNEX 1

PRELIMINARY WORK PLAN

Activity	Duration	Timing
Recruit Resource People	2 month	Month 1 -2
Initiate planning process — form steering committee	3 meetings / year	Month 2-36
Develop methodology for Social and Anthropological Assessment	1 month	Month 2
Initiate sociological assessment	11 months	Month 3 - 13
Collate data on biodiversity of Llanos, threats to habitats and species, and solutions; verify data through consulting with experts	2 years	Month 2 - 18
Send out request for proposal for GIS (3 weeks to develop proposal); evaluate proposals; select team	2 months	Month 2; Month 4; Month 5
Initiate GIS data collection; processing; coordination with fauna and flora specialists Meetings	8 months	Month 6 - 14
Develop ecoregion training methodology, and initial training materials and validate its utility with one target group of decision makers and one target group of educators; change if necessary	4 months	Month 6-10
Initiate Training workshops and programs - stakeholder consultations	20 months	Month 11-30
Initiate training program with campesinos	30 months	Month 2 - 32
Initiate meetings with private land owners develop land conservation and ecological corridors plan, and a code of environmental responsibility	1 year	Month 8 - 20
Write Guide to the Llanos Ecoregion — part I	4 months	Month 18 - 22
Use results of scientific analysis and workshops on planning and environmental decision making with stakeholders to write the first draft plan	4 months	Month 22 - 26
Meet with individuals or small groups of experts and stakeholders to validate information	3 months	Month 26-28
Write second draft; circulate Have open workshop on plan and then produce final document (Guide to Conservation and Sustainable Management of the Llanos — Part II)	3 months	Month 29-31
Have meeting with key stakeholders for implementation of strategies of the plan	1 month	Month 30
Have press conference to release plan	2 months	Month 29 - 31
Fundraising	2 years	Month 10 - 34
Evaluate program	2 months	Month 33 - 35
Write final report	2 months	Month 34 - 36

RECIBIDO

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1 MAR. 1998

República de Venezuela
Ministerio de Relaciones Exteriores
DGSECVDAEIVMA

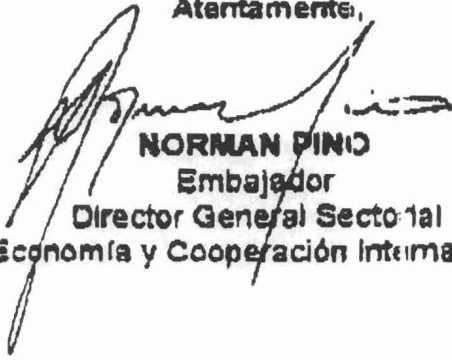
Caracas, 16 MAR 1998

Doctor
DIEGO DIAZ MARTIN
Director Ejecutivo del
Fondo para la Defensa de la Naturaleza (FUDENA)
Presente.-

Tengo el agrado de dirigirme a usted en la oportunidad de remitirle en anexo, para su conocimiento, copia de la carta aval para el proyecto presentado por la Fundación que usted dirige, *Conservación de la Diversidad Biológica y Manejo Sostenible de Recursos en la Región de Los Llanos* la cual fue enviada por vía diplomática al Presidente del Fondo para el Medio Ambiente Mundial.

Atentamente,




NORMAN PINO
Embajador
Director General Sectorial
de Economía y Cooperación Internacionales

D/MR

REPUBLICA DE VENEZUELA
MINISTERIO DE RELACIONES EXTERIORES
CARACAS

002281

Caracas, 16 MAR 1990

Señor
MOHAMED EL - ASHRY
Presidente del Fondo
para el Medio Ambiente Mundial (GEF - FMIAM)
Su Despacho.
Presente.

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23 48*

Es grato dirigirme a usted, en la oportunidad de referirme al proyecto "Conservación de la Diversidad Biológica y Manejo Sostenible de Recursos en la región Los Llanos", elaborado por la Fundación para la Defensa de la Naturaleza (FUDENA), Organización No Gubernamental venezolana que está solicitando ante el Fondo para el Medio Ambiente Mundial (FMIAM), el financiamiento para la ejecución del mencionado proyecto.

Sobre este particular, hago de su conocimiento que luego de someter el proyecto al análisis de las autoridades con injerencia en la materia del Ministerio del Ambiente y los Recursos Naturales Renovables de Venezuela, se concluyó que resulta altamente positivo que organizaciones no gubernamentales nacionales se aboquen al desarrollo de proyectos de esta naturaleza, por estar orientados a la conservación y manejo de los recursos naturales.

Es por ello que me permito informarle en mi carácter de Punto Focal para el Fondo para el Medio Ambiente Mundial en Venezuela, sobre el apoyo del Gobierno de mi país a este proyecto. Mucho le agradecería que se tomen las previsiones necesarias para el otorgamiento del financiamiento solicitado por FUDENA.

Aprovecho la ocasión para reiterarle mis sentimientos de más alta estima y consideración.

Atentamente,

[Handwritten Signature]
NORMAN FINO
Embajador
Directa General Sectorial
Economía y Cooperación Internacionales

