



**PROJECT DEVELOPMENT FACILITY  
REQUEST FOR PDF BLOCK A FOR MEDIUM-SIZED PROJECT**

**AGENCY'S PROJECT ID:**  
**GEFSEC PROJECT ID:**  
**COUNTRY:** Mexico  
**COUNTRY ELIGIBILITY:** Mexico signed the Convention on Biological Diversity on June 13, 1992 and ratified on March 11, 1993  
**PROJECT TITLE:** Sacred Orchids of Chiapas: Cultural and Religious Values in Conservation  
**GEF AGENCY:** World Bank  
**OTHER EXECUTING AGENCY(IES):**  
**DURATION:** 6 months for project preparation, 3 years for project implementation.  
**GEF FOCAL AREA(S):** Biodiversity  
**GEF OPERATIONAL PROGRAM(S):** OP4 Mountain Ecosystems and OP3 Forest Ecosystems

<b>FINANCING PLAN (US\$)</b>	
<b>GEF PROJECT</b>	
PDF A	50,000
<i>Sub-Total GEF</i>	50,000
<b>CO FINANCING</b>	
GEF Agency	
<i>National Contribution</i>	31,000
In Cash (23,000)	
In Kind (8,000)	
<i>International Contribution</i>	20,000
In Kind ARC (20,000)	
<i>Subtotal Co financing:</i>	51,000
<i>Total PDF Financing:</i>	101,000

**GEF STRATEGIC PRIORITIES: Biodiversity Strategic Priority I. Catalyzing Sustainability of Protected Areas Systems:** (a) Demonstration and implementation of innovative financial mechanisms and (c) Catalyzing community – indigenous initiatives. **Biodiversity Strategic Priority II. Mainstreaming Biodiversity in Production Landscapes and Sectors :** (b) Developing market incentive measures

**ESTIMATED STARTING DATE:** 4<sup>th</sup> Quarter 2005



**RECORD OF ENDORSEMENT ON BEHALF OF THE GOVERNMENT:**

Claudia Grayeb Bayata, Director of Financial International Organizations, Ministry of Finance (Secretaría de Hacienda y Crédito Público)

*Date:* August 4<sup>th</sup>, 2005

This proposal has been prepared in accordance with GEF policies and procedures and meets the standards of the GEF Project Review Criteria for PDF Block A approval.

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## 1. PROJECT LINKAGE TO NATIONAL PRIORITIES, ACTION PLANS AND PROGRAMS

The National Strategy for Biodiversity in Mexico includes the following activities:

- a) **Protection and conservation** to restore and preserve, in both quality and quantity, the greatest possible range of biological diversity and to reduce negative impact on biodiversity as much as possible.
- b) **Valorization of biodiversity** to establish guidelines for policies that Mexican society should adopt to ensure appropriate appreciation of the importance of the existence and conservation of biodiversity.
- c) **Knowledge and management of information** to recover, protect, and systematize both modern and traditional knowledge, which in turn will facilitate decision-making related to protection, conservation, and sustainable applications of biodiversity.
- d) **Diversification of uses of biodiversity** to ensure continuation of sustainable practices, reduce unsustainable ones, and diversify uses for elements of biodiversity that already provide income and employment.

Mexico's National Plan for Environmental and Natural Resources for 2001–06 states that achieving integrated management of natural resources and sustainable development within the current model of environmental management requires (a) promoting recognition of the economic and social values of natural resources, and (b) participation by civil society (for example NGOs, the private sector, and academic institutions) in the formulation and implementation of policies and programs.

The Strategic Forestry Plan for Mexico to the year 2025 includes the development of non-timber forest resources, stating in Section 5.5.2 that “non-timber forest products and traditional knowledge related to them offer possibilities for both improving resource conservation and promoting their sustainable management.”

The National Commission for the Development of Indigenous Peoples has established a program of Productive Agro-ecology that involves the recovery and conservation of genetic materials of flora and fauna species of interest to indigenous communities (for ritual, medicinal, or dietary use). The program also encourages indigenous communities to manage their natural resources by integrating their own traditional practices with adopted modern technologies, according to their culture.

The proposed project, designed for specific communities in the state of Chiapas, would link traditional and religious values with a variety of arrangements for promoting forest and species conservation. It will use participatory research and knowledge dissemination to facilitate awareness among local and indigenous communities of species' life cycles and encourage cooperative land use arrangements between collectors and landowners.

On the economic side, the project seeks to achieve a fair valorization for commercially valuable species and create agreements for improving trade conditions between producers, distributors and consumers such as religious groups.

## **2. PROJECT RATIONALE AND OBJECTIVES**

### *Global Objective*

Diversify opportunities for sustainable management of tropical forests in mountain areas by increasing the benefits derived from non-timber products and fostering participation of indigenous and rural peoples in conserving globally significant biodiversity.

### *Immediate Objective*

Increase conservation measures in areas of high biodiversity in Chiapas by establishing a collaborative framework among religious entities, traditional indigenous groups, forest owners, and the government for sustainable use of non-timber products (bromeliads, cycads, orchids, and palms) used for religious and cultural purposes.

The project will seek the involvement and active participation of traditional leaders and religious groups in raising conservation and environmental awareness.

Ultimately, the Chiapas project will seek to demonstrate the economic and conservation benefits of linking religious and cultural values to biodiversity conservation and analyze the potential for scaling up such an approach to the national level.

### *Overall Project Strategy*

The proposed project will promote conservation of non-timber species and help protect remnants of globally significant ecosystems (tropical montane cloud forest, tropical rainforest, Central America pine-oak forest) through the sustainable management of non-timber products used for religious purposes. It will benefit indigenous and rural communities living in biosphere reserves (Montes Azules, El Triunfo, La Sepultura, and El Ocote) as well as important conservation areas in the Chiapas highlands.

The strategy to achieve these goals is based on the active participation by indigenous people and poor peasants, improving livelihoods in the communities with the most direct impact on non-timber forest products, and forging strategic partnerships with religious leaders and congregations, NGOs, and governments to support fair trade in sustainable products from extractive reserves. This approach includes three main components. The first involves analyzing the status and uses of selected species and promoting strategies and practices for their sustainable management. The second would focus on fostering participation by local and indigenous communities in such efforts and strengthening their capacity for managing the resources. A third component would build partnerships and alliances with religious groups, particularly in the promotion of fair and sustainable markets for the species in question.

To avoid duplicating activities and wasting limited resources, the project will promote synergies with other projects, programs, and initiatives operating in the region. It also will carefully consider national and international norms and regulations, specifically International Labor Organization (ILO) Convention 169 on indigenous and tribal peoples, the recently revised World Bank policy on indigenous peoples (OP/BP 4.10), Official Mexican Norm 059 on endangered and protected species, other Mexican laws and regulations on wildlife, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and Article 8(j) of the Convention of Biological Diversity.

The project will focus on managing species under substantial pressure from harvesting for use in traditional celebrations and religious practices. The symbolic value of these species offers an important opportunity to involve religious and traditional indigenous social structures in the development of conservation strategies and creates incentives for protecting the forest habitats of these imperiled species by managing them as extractive reserves.

Project activities will support local indigenous traditions and promote participation by religious leaders and congregations in conserving both forests and threatened species. It will help establish partnerships between forest owners and religious and traditional consumers of non-timber products, thereby not only protecting biodiversity but also providing economic benefits for indigenous and traditional communities.

The groups of non-timber products selected for the project are bromeliads, cycads, *Chamaedora* palms, and orchids. These plants are currently used by the communities in various ways under specific arrangements regarding access rights and ownership of the forest sites where the species grow as well as provisions for sharing the benefits of their sustainable management and use. There are local, regional, and international markets for some of the species, but not for all of them. If during project preparation and implementation it is determined that traditional use of other species represents a risk to wild populations, they may also be included in the project.

In addition to protecting the selected non-timber species listed below, the ultimate goal of the project is to generate incentives to protect fragile ecosystems and conserve biodiversity more broadly in the unique montane cloud forests, dry tropical forests, and tropical rainforests of southern Mexico that provide habitat for a wide range of globally significant biodiversity. The project will also develop economic alternatives to improve income at the household level.

The project will help protect these ecosystems by increasing the social and economic value of non-timber products, particularly those with cultural and symbolic importance, as incentives for conservation.

Increasing the economic value of the plants by fostering sustainable markets would provide greater incentives for conserving the fragile ecosystems in which they grow.

Therefore, key challenges include increasing the benefits of forest management, reducing the impact of traditional ceremonial but also economic activities -such as cattle ranching and slash-and-burn agriculture-, and ensuring that community access and use of forest resources promotes sustainable and environmentally friendly activities such as shade-grown coffee and ecotourism.

### *Detailed Rationale*

The rationale of this project is based on previous experiences by the North American Commission on Environmental Cooperation (CEC) and others involving stakeholders motivated by religious and cultural values in biodiversity management. The partnership for this project with the Alliance of Religions for Conservation (ARC), a worldwide network of 11 faiths that promotes participation in environmental projects by religious groups based on their own traditions and beliefs, provides valuable lessons in approaches for working with religious leaders. At the World Parks Congress in Durban, South Africa, sacred areas were considered one of the important aspects to be considered in conservation, a concept that implies a different approach to community involvement. Participation by the Consejo Latinoamericano de Iglesias (CLAI) in an environmental outreach campaign is another example of this potential. Religious entities around the world increasingly are becoming partners with other organizations and more and more are playing a role with other sectors of civil society in working on environmental issues based on the teachings and practices that embody the profound insights of their faith.

The project area is located within a biodiversity hotspot identified by Conservation International and it will help protect and conserve the emerald quetzal, horned guan, golden checked warbler, scarlet macaw, and many other endangered and endemic Mesoamerican species.

Although Chiapas has the second greatest biodiversity of any state in Mexico and more than 70 percent of its territory has potential for sustainable forestry, it has the highest rate of deforestation in the country, losing about 50,000 to 70,000 hectares of forest per year.

A high proportion of this loss is due to the following aspects:

- Alteration of habitat, mainly for agriculture.
- Population growth and expansion of urban frontiers towards forested areas.
- Over-exploitation of wild species, well over its natural carrying capacity<sup>1</sup>.
- Introduced exotic species.
- Agrochemical pollution.
- Natural causes, such as floods, forest fires, volcanoes and hurricanes.

Root causes behind these pressures include:

- Deficiencies in regulation of non-timber forest products & wildlife.
- Deficiencies in information on markets and uses.

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<sup>1</sup> See *Cultural and Religious Dimensions in the Use of Wild Tropical Flowers and Plants*, on page 7.

- Deficiencies in information on carrying capacity and culture practices.
- Low demand for (Biodiversity) B-friendly and fair trade certified products.
- Lack of information and active engagement of user groups, in particular religious groups.

The potential loss of natural habitat and native species in Chiapas would have an important negative effect of global importance due to the special place Mexico and the State occupy in the world in these aspects.

Religious beliefs, traditions, ceremonies and common use, -as are currently carried out and explained further later on-, pose a serious threat over wild populations of plants, which, in turn, affect all of the ecosystem.

### *Ecological Importance*

The total number of species known to exist in Mexico is about 65,000. Together with Brazil, Colombia and Indonesia, México is among the first countries with largest species wealth. Some 26 thousand species of plants, 282 of amphibians, 707 reptiles and 439 mammals have been identified and described as native to Mexico. These figures place Mexico as a mega-diverse country, with at least 10% of all biodiversity on Earth. (Mittermeier y Goettsch, 1992<sup>2</sup>).

The State of Chiapas, in southern Mexico, is extremely rich in biological and cultural diversity. There are over 8,000 species of vascular plants, -which represent almost one third of all plants and more the half of higher plants-, and 19 vegetation variations under major ecosystems such as deciduous forests, cloud forests, tropical rainforests, and mangrove swamps.

The project will create an opportunity for Mexican and international conservation experts to examine and discuss the global biodiversity significance of the selected species as well as the conservation priority of the rich mountain habitats on which they depend. This is important because current knowledge about the status of wild populations of many species is not adequate to reliably assess the degree to which they are threatened.

This is the case with the bromeliad species included in the project (*Tillandsia eizii*, *T. ponderosa*, *T. vicentina*, and *T. guatemalensis*). The 2004 IUCN Red List of Threatened Species includes 25 species of *Tillandsia* worldwide, most of which are reported by a single author in Ecuador. In Chiapas alone there are 101 *Tillandsia* species reported in mountain habitats, most of which are endemic and most of which are found in tropical, old-growth, montane forests that are rapidly disappearing. It is expected that field research to update the limited data currently available on this genus in southern Mexico would add many more species to the IUCN Red List and other conservation references.

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<sup>2</sup> Mittermeier, R. y C. Goettsch 1992. La importancia de la diversidad biológica de México, pp. 57-62 en: *México ante los retos de la biodiversidad*. CONABIO. México.

The main orchid species in the project that are collected from the wild in Mexico are *Osmoglossum pulchellum* (highlands), the highly endangered *Oncidium leucochilum* (Amatenango del Valle area), and *Laelia superbiens* and *Cattleya skinneri* (forests near Comitán and Tuxtla Guterrez).

In the case of cycads, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) lists the entire taxa in Appendix 1—its most endangered category, which sets the strictest limitations on the import or export of any specimens of these plants. The species of cycads included in the project area are *Cerastozamia norstogii*, *Dion merolae*, and *Zamia soconuscensis*, all of which are endemic and considered to be in danger of extinction according to Mexico's official list of threatened species (NOM-059-ECOL-2001).

Palm species that are collected for commercial use and income generation in the communities include *Chamaedorea quezalteca*, *Chamaedorea ernesti-augustii*, *Chamaedorea graminifolia*, all of which are considered threatened in the wild in Mexico according to NOM-059-ECOL-2001.

#### *Cultural and Religious Dimensions in the Use of Wild Tropical Flowers and Plants*

**Bromeliads** of the genus *Tillandsia* are traditionally used by the Mayan people of the Chiapas highlands to decorate churches during New Year's ceremonies and to decorate the altars of the saints throughout the year. It is estimated that about 6,000 bromeliads of *Tillandsia eizii* alone are used for religious purposes each year. It can take a wild plant up to 8 years or longer to mature and flower, which then has a local market value of two pesos (about US\$0.18). There are special customs for gathering the plants and the collection itself is done by specific members of the community (Nichim). Women are not allowed to participate in the actual collection, but the Martoma (woman mother or female shaman), receive the plants from the Nichim on behalf of the community and purify them. While the owner of the forest receives alcohol or food from the community in exchange for permission to collect the plants, there is no real conservation incentive to protect the habitat. As mature forests disappear, the harvesting of wild species represents an increasingly serious risk to the viability of certain species and to the future of this cultural practice. To address this risk, wild populations of bromeliads could be managed through establishment of extractive reserves in mature pine-oak forests with specific economic or social incentives to encourage habitat conservation by landowners.

**Cycads**, principally *Dion merolae*, are used during the Feast of Candelaria in the Municipality of Villacorzo in Chiapas. A family outing to collect the plants is organized by villagers and the Catholic Church as one of the major social and cultural activities of the year. Overharvesting has so dramatically diminished wild populations of this rare species in the hills near the village that the annual pilgrimage now ventures into the protected forests of the nearby La Sepultura Biosphere Reserve. Autonomous University of Chiapas (UNACH) researchers who are trying to protect and propagate this species need to establish agreements among traditional collectors to regulate harvesting of the plant and provide an incentive to landowners (in this case ejidos) to conserve the forests.

**Chamaedora Palms.** The production and gathering of wild specimens of various palms of the genus *Chamaedorea*, native to the Selva Lacandona, El Triunfo, El Ocote, and La Sepultura biosphere reserves, could provide an alternative source of income for local inhabitants of the protected areas. In rural communities palms are generally harvested and sold by the poorest people, who do not have land to grow crops. Sustainable harvesting practices and better market development could greatly improve the economic benefits of productive activities such as these that are based on demand from cultural uses. There is a significant and valuable market for “xate” palm (*Chamaedorea* spp.) in Mexico, the United States, and Europe. While its use is most commonly associated with religious ceremonies related to Palm Sunday, xate is also used for other aesthetic, religious, and ritual purposes, such as weddings, funerals, and everyday floral arrangements.

The CEC recently identified religious organizations as a significant segment of the U.S. market for xate. Some U.S. religious congregations have already expressed interest in initiatives to buy sustainably harvested palm directly from certified sources in Mexico and Guatemala. The principal obstacles to sustainable production and commercialization of xate are (a) little or no control of the production and harvesting process, (b) market control by intermediaries, which complicates negotiation of prices, (c) lack of standards or quality control by producers and harvesters in selecting the best fronds, and (d) low prices paid to the initial producer.

**Orchids.** Another group of non-timber forest species harvested for religious and traditional purposes is orchids, which are used to decorate church festivals and home altars. The main orchid species collected are *Osmoglossum pulchellum*, *Oncidium leucochilum*, *Laelia superbiens*, and *Cattleya skinneri*.

Some of the species of the Genus *Barkeria* are found only in Chiapas and Guatemala at altitudes ranging from 1000 to 2000 meters above sea level. For example, the species *B. skinneri*, endemic to this region, has been nearly exterminated in its native habitats by the clearing of the forests for coffee plantations and traditional use.

Since the overall degree to which orchids are gathered for these purposes has not been adequately documented, the project will analyze the social structures and environmental impact of this activity. Even though there are a great variety of orchids in the forests of Chiapas, proper management can enrich and even diversify orchid production systems. In 1994 the Mexican NGO PRONATURA Chiapas established the Orchid Garden, a greenhouse and nursery in San Cristóbal de Las Casas, which currently has a collection of more than 1,300 plants representing 450 of the approximately 600 orchid species native to Chiapas.

The Orchid Garden will contribute with the project by providing environmental education designed to help achieve sustainable development and conservation of orchid species and will also strengthen the project by forging links with rural communities, thus facilitating transfer of appropriate technologies for proper species management.



## Baseline Scenario

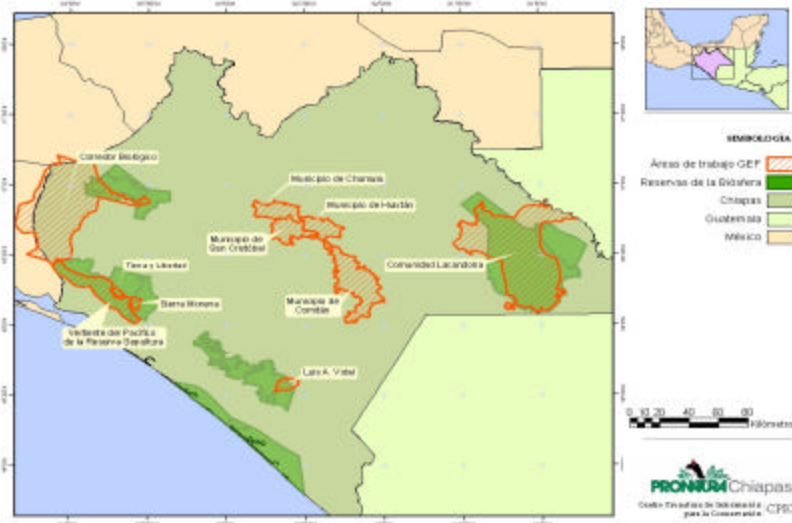
The deforestation rate in Chiapas is one of the highest in Mexico, averaging 1.9 percent *per annum* in rainforest and tropical forest.<sup>3</sup> Tropical montane cloud forest and tropical rainforest have been identified by the World Conservation Monitoring Centre as among the most threatened types of ecosystems in the world.

The environment programs of NGOs and government institutions in Mexico do not currently address conservation and sustainable management of species used for traditional and religious purposes, although there is substantial evidence of extended harm to wild populations. Many of the species in question are already considered threatened or endangered and for some other species not enough is known about their conditions and distribution to determine their conservation status.

Despite the importance of the species and their habitats, there are no efforts to develop conservation mechanisms or sustainable practices to preserve them.

The selected project area includes communities in the highlands and biosphere reserves of Chiapas (see Map 1). The integrity and success of the biosphere reserves as protected areas depends on addressing the needs and impacts of local communities.

**Map 1. Sacred Orchids of Chiapas**



Communities in the El Triunfo, La Sepultura, and Montes Azules biosphere reserves are already involved in exploitation of *Chamaedora* palms. Most of the gathering is conducted within the reserves without management plans or training. The Ministry of Environment (SEMARNAT) has issued very few permits to communities allowing them to collect and commercialize palms, mainly because there is little information, technical

<sup>3</sup> Between 1976 and 1991 the average annual deforestation rate for tropical forest in Chiapas was 1.9 %, or about twice the rate of deforestation for deciduous forests, according to *La Deforestación en las Áreas Naturales Protegidas de Chiapas*, by Ignacio March and Alejandro Flamenco Sandoval.

advice, and knowledge about the sustainability of such activities. Harvesters of palm and other non-timber forest products typically lack their own cultivable land and represent the poorest segment of the community.

In the Chiapas highlands, bromeliads and orchids are collected without any regulation or management and there are no incentives to conserve the mature forests where they grow. The owners of forest patches receive little if any compensation for allowing access by traditional collectors and over time other activities, such as agriculture and grazing, encroach on the forests and force traditional collectors to search for native species at other sites.

Religious and traditional indigenous beliefs are a major force in shaping behaviors and providing social cohesion and identity, yet people who use the species in traditional festivities are not aware of the environmental issues involved and are not active in promoting sustainable management practices.

In terms of the legal framework, even with the recent changes to the Forestry Law (Ley de Desarrollo Forestal Sustentable) approved in 2004, non-timber products of cultural and traditional use are not regulated and there is no program for sustainable management of natural stocks of these plants.

#### *Alternative GEF scenario*

Under the GEF scenario, the threats will be addressed through a new approach certified biodiversity friendly production in extractive reserves and a multipartnership fair trade agreement with the religious communities that constitute the main consumers of these non timber forest products. The certified management will focus on the endangered species and the habitats of global biodiversity importance where these species naturally occur and are being presently collected with no carrying capacity prospecting or extraction quotas determined.

An initiative focused on these species could involve new actors in conservation activities, in particularly the religious and traditional leaders, people in urban areas, and rural communities that use the leaves and flowers of these plants in religious and cultural festivities.

The support of the GEF will be instrumental in designing this approach and catalytic in building the nascent partnerships among the conservation community, the indigenous and peasant producers, the consumers in the country and abroad, and the religious leaders concerned with the environment who are seeking for concrete actions to make a difference. The technical and financial support of the World Bank and the GEF will allow the new approach to be given a chance and will help build the technical support to give credibility to the B-Friendly and Fair Trade certifications required to harness support from consumers/religious communities thousands of miles away from the reserves which are presently threatened by unsustainable extraction patterns.

### **3. EXPECTED OUTCOMES**

1. Non-timber forest species used for religious and symbolic purposes are managed sustainably by indigenous and rural communities in Chiapas, within an enabling legal and technical framework, to ensure the conservation of these resources and of their fragile habitats.
2. Indigenous communities and rural peasants are empowered and actively participate in efforts that yield social and economic benefits based on the conservation and shared use of non-timber species in selected sites of Chiapas.
3. Religious and traditional sectors increase their environmental awareness concerning the sustainable consumption of species for rituals and festivities, participate in efforts to foster their conservation, and broaden the base of support for such activities among people of faith.

### **4. PLANNED OUTPUTS TO ACHIEVE OUTCOMES**

#### *Component 1. Conservation and Sustainable Use of Non-timber Species*

- Databases and reports on the distribution, impact of consumption, traditional uses, and conservation status of wild populations of the selected species of bromeliads, cycads, palms, and orchids.
- Increased knowledge (produced in collaboration and shared with the communities) about propagation of orchids, bromeliads, and cycads for traditional and commercial use.
- Documentation compiled of existing propagation assays for orchids and other species. Technology adapted for conservation and sustainable production.
- Examples of good management practices for non-timber forest products, including management plans, indicators for certification, and application of standards.
- Feasibility study for Extractive Reserves in selected sites, including indicators, to define harvesting methods.
- Proposal for improving regulations governing non-timber products presented to authorities and produced with support of stakeholders.
- Agreements for the use and conservation of wild populations of non-timber forest products, with and for participating landowners and members of traditional and religious community organizations.

#### *Component 2. Participation and Capacity Building of Indigenous and Rural Communities*

- Participatory research conducted on indigenous knowledge about the use and distribution of bromeliads, cycads, orchids, and palms in project areas.

- Greater awareness of species conservation among indigenous and peasants community authorities, families, and collectors in Chiapas through an environmental and social communication strategy.
- Participatory plans and community agreements on sites for the management and harvesting of selected species.
- Social structures developed in the communities, including a clear definition of roles and benefits.
- Members of the communities trained in sustainable harvest and on-site propagation of non-timber products.
- Collaboration agreements for forest management and protection between forest owners and traditional users of cycads, bromeliads, and orchids.
- Formula of incentives or compensation for owners in the identified and tested extractive forests, including conservation easements and environmental services schemes.
- Empowerment of indigenous communities through greater involvement in the market chain, especially for palm species.
- Establishment of a regional organization of palm producers in Chiapas.

*Component 3. Building Partnerships with Religious Groups for Conservation and Market Promotion*

- Partnerships and alliances established with Christian groups as consumers of non-timber products.
- Trade agreements formalized with communities and religious organizations to improve market sustainability.
- Environmental communication strategy developed for Catholic and Christian churches with the support of CLAI and ARC.
- Partnerships and commercial agreements established between communities and religious groups through exchanges and visits.
- Members of religious faiths trained and competent in conducting activities related to sustainable consumption of non-timber species.
- Greater conservation awareness among consumers and regulating authorities about non-timber species and products.

*Sustainability*

The project will establish mechanisms for increasing sustainability in several areas:

1. Institutional sustainability. By establishing, supporting, and strengthening local organizations in the communities, the project will build local grassroots capacity to manage their natural resources and to solve internal conflicts on benefits sharing.

2. Legal framework. The project will address the issue of legal norms and procedures to improve control, evaluation, and management of threatened species, thereby helping to create conditions for legal trade and commercialization.
3. Extractive reserves, incentives, and agreements. By defining the conditions for harvesting wild plants, value will be added to both the species and its forest habitat. Incentives such as market opportunities, certification, and environmental services payments will support conservation efforts in the long term.
4. Market linkages. In the case of the palms and possibly other species, establishing links between buyers (religious consumers) and producers (communities) will help maintain fair trade and sustainable practices beyond the end of the project.
5. Religious alliances. The alliances established between religious organizations and the environmental sector will continue after the project, increasing people's awareness and participation in conservation.

### *Replicability*

The project will serve as a demonstration case on the importance of the symbolic value of wild plants and its potential for fostering conservation actions. The lessons and methodologies applied in the project could be applied in many regions of Mexico and Central America where similar situations exist. It will also serve as a means to increase public and government support for the management and conservation of non-timber species in Mexico and to facilitate links between faith and conservation groups. This, in turn, can lead to other initiatives as well as to the replication of this effort in other areas. Based on project results, opportunities for scaling up to the national level will be considered.

For example, since religious actors are the main buyers of palm fronds in Mexico, the project will explore the possibility of creating pilot projects to test the feasibility of an equitable and sustainable palm market linking producers more closely with consumers. By creating such links the project will promote development and implementation of community strategies, based on actual trade opportunities, for managing forest resources. This experience may help generate comparable strategies in other parts of Mexico and Central America that have similar cultural, environmental, and socioeconomic characteristics.

## **5. STAKEHOLDERS INVOLVED IN THE PROJECT**

This project involves a large number of participants from different sectors and countries, such as environmental institutions, rural and indigenous communities, governmental agencies, religious congregations, civil society groups and business people. Empowerment of the communities during the project is a priority to ensure the long-term sustainability of the decisions taken for conservation of these species and traditions.

The project will be carried out with the participation and involvement of the communities, traditional authorities, and religious leaders. It will facilitate information sharing, training, and communication to help members of the communities reach agreement on the use of specific species and to achieve and maintain sustainability. The project will be respectful of existing forms of social organization related to the management of resources and will ensure that the communities involved have the opportunity to express their informed and responsible consent on all aspects and activities of the project prior to starting activities.

Among the communities involved in the project are Sierra Morena, Tierra, y Libertad in the La Sepultura Biosphere Reserve; Capitan Luis A. Vidal and Bienes Comunales de San Antonio in the El Triunfo Biosphere Reserve; Lacanja and Palestina in Montes Azules; Parajes de San Juan Chamula, Huixtan, Amatenango del Valle, and Las Margaritas in the Chiapas highlands; and social groups in Comitán, San Cristóbal de Las Casas, and Villacorzo.

PRONATURA Chiapas will act as implementing agency for this project. PRONATURA Chiapas and partner organizations (such as the National Commission on Natural Protected Areas–CONANP) already have ongoing activities agreed with the communities in most of the proposed project areas. During Block A, consultations with other potential communities will be conducted. Religious congregations both in Chiapas and at the national level will be consulted. The Alliance of Religions in Conservation (ARC), which has already participated in initial visits to the field, has agreed to support the process of project design and implementation. The National Commission of Indigenous Peoples, CONANP, the Secretary of Indigenous affairs in Chiapas, the Institute of Natural History in Chiapas, and the National Commission on the Use of Biodiversity will also collaborate. Among the international organizations interested in providing support are The Nature Conservancy, Rainforest Alliance, and Conservation International. The North American Commission for Environmental Cooperation (CEC) is interested in supporting issues related to trade and the University of Minnesota is interested in linking local groups with consumers in North America. Other partners and specific roles will be identified during execution of the Block A grant.

## PART II: INFORMATION ON BLOCK A ACTIVITIES

### **6. EXPECTED OUTCOMES/COSTS AND COMPLETION DATES OF THE PDF**

While ongoing efforts by local groups, international organizations, and universities that have collaborated with PRONATURA provide a basic platform for this initiative, additional work must be completed to better define the project strategy and specific activities.

The PDF A will co finance completion of a social assessment, consultations, a strategic approach to partnerships, and the incremental cost analysis.

### *Expected Outcomes/Activities*

- Agreement with stakeholders (communities, institutions, religious groups) on their role in and contribution to the project. To be able to come to terms for an agreement with the relevant stakeholders involved, the work program for the Block A comprises two main activities:
  - Individual interviews and as appropriate, meetings with governmental institutions, potential partners, religious congregations, local authorities and indigenous leaders. This activity includes contacts with the religious communities facilitated by the Latin American Church Council, the Bishop's office in San Cristobal and the Alliance of Religions and Conservation. On the market side, the contacts will be facilitated through the North American Commission for Environmental Cooperation and university research teams in US, Canada and Mexico. The conservation NGOs and the National Commission for Protected Areas have already started to facilitate the consultations and preliminary agreements with indigenous groups and peasants living in and around the buffer areas of natural protected areas in the South and North Eastern areas of the state of Chiapas.
  - Since the main thrust will lead to mainstream the biodiversity friendly and fair trade principles in a relevant economic activity and sector, an initial activity to support the process of building agreements with the relevant stakeholders will be the review of the current market of non-timber products (interviews, literature analysis).
- Completion of social and environmental impact analyses. This outcome will be a basic input for the design and implementation of the new approach both in terms of the sustainable harvesting of the non timber products in extractive reserve as well as the new trade relationship with far away consumers who are part of religious communities who are willing commit with the objectives of the project. In order to do this the Block A will finance three main activities:
  - A preliminary analysis of the cultural means and social arrangements of the use of non timber products (bromeliads, orchids and cycads) to understand the relevance of the activities involved, determine the relevant actors involved, understand the different levels of social, cultural and economic relations involved and be able to take this into account in the design of the desired intervention, as well as assure the compliance with social safeguards for project implementation, including the Operational Directive 4.10 on Indigenous Peoples. This activity will include a comprehensive literature review and interviews with formal and informal leaders, and representative individuals from vulnerable groups (women, young, elderly) in participant indigenous communities.

- To establish the necessary precautions related to impact on the habitat and particularly on the population of selected species, the team will conduct a preliminary analysis on of the condition and distribution of species of bromeliads and orchids to assess the potential impact of its management and the regulation under certification arrangements of its use.
- A parallel review will be carried out on the condition and present distribution of xate palm and cycads and the expected and potential impacts of its continued use under the present patterns of collection and the benefits expected from a certified extraction under managed buffer areas of natural habitats.
- Definition of project scope, indicators, and incremental cost. The completion of the project design is expected by the end of the Block A work program and the expected outcome thus requires several activities which are grouped under the following description:
  - Project design completion based on the technical assessment of the proposed intervention, particularly the extractive reserve approach and the strategic partnership with the consumer/religious organizations and communities to support a concerted new approach to trading of non timber forest products which ought to be benign to the creation and concerned for the well being of our fellow being. The final product will incorporate the literature review, the analysis of the global benefits resulting from the proposed intervention (incremental cost analysis) and the final editing and presentations.
- Finally a main outcome for follow up activities will be the planning of workshops together with stakeholders who have been involved from the conception of this proposal. The participatory and co-responsibility principles are guiding the preparation stage and the continuous contacts and consultations with indigenous peoples, local religious leaders, ARC and governmental institutions is becoming a regular practice and the outcome is already manifest in a new trust and culture which this process is contributing to build.



*Activities Financed by the PDF A*

<i>Activity</i>	<i>Estimated budget (US\$)</i>	
	<i>GEF</i>	<i>Co financing</i>
Interviews, meetings with governmental institutions, potential partners, religious congregations, local Authorities and indigenous leaders. US, Canada, Mexico	6,000	8,000
Review of the current market of non-timber products (interviews, literature analysis)	4,000	7,000
Preliminary analysis of the cultural means and social arrangements of the use of bromeliads, orchids and cycads (literature review, interviews in indigenous communities)	6,000	3,000
Preliminary analysis on of the condition and distribution of species of bromeliads and orchids and its use	8,000	3,000
Survey on of the condition and preliminary distribution of xate palm and cycads and its use	6,000	9,000 (CONANP)
Project design, technical assessment and literature review (including consultant on incremental cost analysis, and english editing)	8,000	6,000
Planning workshops with stakeholders (indigenous peoples, local religious leaders, ARC and governmental institutions)	12,000	15,000
<b>Total</b>	<b>50,000</b>	<b>51,000</b>

*Completion Dates*

<i>Activity</i>	<i>Month</i>					
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
• Social assessment with indigenous and rural groups (community visits, interviews, assemblies)						
• Two Planning workshops (religious groups, institutions and community members)						
• Workshop on potential market of non-timber products						
• Environmental assessment (field surveys)						
• Log-frame and analysis of incremental cost						
• Integration of project brief, including project GANTT Chart, budget and funding strategies						

## 7. OTHER POSSIBLE CONTRIBUTORS/DONORS AND AMOUNTS

<i>Contributor/donor</i>	<i>Block A (US\$)</i>	<i>Project (US\$)</i>
PRONATURA Chiapas, A.C.	12,000	700,000*
Alliance of Religions for Conservation/ARC (in kind)	20,000	120,000
Consejo Lationamericano de Iglesias	2,000	10,000
Conservation International (market study on palm) in kind	5,000	
The Nature Conservancy, Chiapas Forestry Program	3,000	125,000
CONANP, Frontera Sur Region	9,000	420,000
Rainforest Alliance		124,000
Commission for Environmental Cooperation (CEC)		50,000
Other to be raised (municipalities, National Commission of Forestry, communities)		400,000
<b>GEF</b>	<b>50,000</b>	<b>965,000</b>
<b>Total</b>	<b>101,000</b>	<b>2,914,000</b>

\* The contribution from PRONATURA Chiapas includes US\$550,000 from the Fund of Social Enterprises for the Environment, a PRONATURA Chiapas program which is a loan facility that will be available to support community production and marketing activities. It also considers in-kind contribution of a Training Center, the GIS-Information Center, the Communications Center and the Huitepec Reserve for conducting propagation assays.

## PART III: INFORMATION ON THE APPLICANT INSTITUTION

<p><b>8. NAME:</b> PRONATURA Chiapas, A.C. Av. Miguel Hidalgo 9, San Cristóbal de Las Casas, Chiapas. CP. 29200, México</p>	<p><b>9. TYPE:</b> Nongovernmental organization</p>
<p><b>10. DATE OF ESTABLISHMENT, MEMBERSHIP, AND LEADERSHIP:</b> Established as nonprofit organization in June 1993  Jose E. Gonzalez Rovelo, <i>President</i> Maria de los Angeles Azuara, <i>Treasurer</i> Rosa Ma. Vidal Rodriguez, <i>Founder and Adjunct Director</i> Romeo Domínguez, <i>General Director</i></p>	<p><b>11. SOURCES OF REVENUE:</b> <i>Private Foundations</i> David and Lucille Packard Foundation, Ford Foundation, Tinker Foundation, Fondo Mexicano para la Conservación de la Naturaleza, Inter- American Foundation <i>Development Agencies</i> USAID, Inter-American Development Bank <i>Mexican Government</i> Ministry of Social Development, Sustainable Rural Development Programs, etc. <i>U.S. Conservation Act Grants</i> North American Wetlands Conservation Act, Neotropical Migratory Birds Conservation Act <i>Individual donations and memberships</i></p>

## **12. MANDATE/TERMS OF REFERENCE:**

Conservation of flora, fauna, and priority ecosystems promoting development in harmony with nature.

## **13. RECENT ACTIVITIES/PROGRAMS, IN PARTICULAR THOSE RELEVANT TO GEF:**

*PRONATURA Chiapas* activities are organized into regional and thematic programs, described below.

- Program for the conservation of the Selva Zoque region, which created a Regional Plan for conservation and support for forest fire management.
- Population–environment project, including community involvement and training in sustainable agriculture, education, and health services in the region.
- Conservation and management of private protected areas. Development of the program for voluntary conservation in Chiapas (including land easements and other mechanisms).
- Training and support for communities and indigenous organizations through the Moxviquil Training Center (a school for peasant leadership, whose curricula include a diploma in social participation in protected areas).
- Regional management planning and conservation in the middle watershed of the Usumacinta River in coordination with Conservation International and the National Water Commission
- The Sustainable Forestry Program in Chiapas. The Forestry program works with local communities for developing field cases of sustainable forestry management. It also advocates for improvement in the sector through a seminar and a report on the state of forestry in Chiapas. PRONATURA is a member of the State Forestry Council providing advice to state programs.
- Environmental Communication Center, which develops communication strategies. Recent projects included collaboration with the Mesoamerican Biological Corridor and World Bank for supporting social participation in the Mexican MBC. Strategic communication and valuation of environmental services in the coastal watershed in Chiapas. The Wetlands Conservation Program on the coast of Chiapas.
- Environmental Education research supported by CONACyT for developing a multicultural approach to environmental education in indigenous communities.
- Orchid Garden, conservation of genetic diversity of endemic and endangered species of orchids in Chiapas. This is accomplished through cultural education of children and adults, encouragement of local sustainable development of orchid resources, and community-based management of orchid tourism.

**14. PROJECT LINKAGE TO IMPLEMENTING AGENCY PROGRAM(S)**

The World Bank's Forests Policy (OP/BP 4.36), adopted in November 2002, builds on the lessons learned in developing the World Bank's Environmental and Rural Development strategies. The new policy provides the basis for proactive engagement with client countries to broadly address the challenges of sustainable forest management, biodiversity conservation, and maintenance of ecosystem services from forests. The policy encourages community forestry with consideration for social and poverty issues and encourages certification as a means of assuring environmental quality.

The World Bank's Indigenous Peoples Policy (OP 4.10), adopted in July 2005, recognizes that indigenous peoples are commonly among the poorest and most vulnerable segments of society and in many countries they have not fully benefited from the development process. It also recognizes that the identity, culture, land, and resources of indigenous peoples are uniquely intertwined and especially vulnerable to changes caused by development programs. The policy considers that the knowledge and culture of indigenous peoples are vital to their survival and sustainable development, and encourages partnerships among the private sector, governments, and indigenous peoples to promote development programs, including investments in various initiatives of indigenous groups and capacity-building programs.

The policy states that the Bank's broad objective towards indigenous people is to ensure that the development process fully respects their dignity, human rights, economies, and cultures. More specifically, the policy requires that Bank-financed projects include measures to (a) avoid potentially adverse effects on the Indigenous Peoples' communities; or (b) when avoidance is not feasible, minimize, mitigate, or compensate for such effects. Bank-financed projects are also designed to ensure that the Indigenous Peoples receive social and economic benefits that are culturally appropriate and gender and intergenerationally inclusive.

The Mexico country assistance strategy (CAS) for 2004–07 focuses on four main pillars: poverty alleviation, environmental management, increased competitiveness, and improved governance. It builds on the positive experience of the Environment Structural Adjustment Loan in revising existing programs and incentives structures to address the implicit short-term tradeoffs between social protection and environmental protection. The CAS indicates that Mexico faces tremendous pressure on its natural environment, to the degree that failure to reverse some of the most damaging environment trends would result in reduced welfare and increased poverty. In supporting the Mexican government's 2001–06 National Environment and Natural Resources Program (ENRP), priority environmental issues that the Bank will focus on over the next three years include: sustainable development as a shared responsibility of different sectors and institutions; decentralization of environmental management and increased public participation; ensuring that beneficiaries pay for environmental services provided; and addressing the loss of tropical forest and biodiversity; and sustainable water resources management.

The World Bank-GEF program in Mexico has focused on strengthening the Natural Protected Areas System; Indigenous and Community Conservation efforts in Oaxaca, Guerrero, and Michoacán; and mainstreaming of biodiversity criteria in regional development in the Mexico Mesoamerican Biological Corridor. This initiative complements the efforts under the above mentioned projects and the use of the tool kit developed under the Land Conservation MSP, to develop a new extractive reserve approach that seems the most appropriate strategy for a biologically and culturally rich state where social exclusion and poverty become barriers to the conservation efforts of both government and civil society.

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