

# SUSTAINABLE DEVELOPMENT PROGRAM FOR PETÉN

(GU-0081)

## EXECUTIVE SUMMARY

**BORROWER AND GUARANTOR:** The Republic of Guatemala

**EXECUTING AGENCY:** The Regional Office of the General Secretariat of the Economic Planning Council (SEGEPLAN VIII), through the central executing unit (CEU), a private entity to be hired.

**AMOUNT AND SOURCE:**

IDB:	US\$ 5.7 million (IFF)
	US\$14.1 million (OC)
Local counterpart funding:	US\$ 2,2 million
Total:	US\$22.0 million

**FINANCIAL TERMS AND CONDITIONS:**

Amortization period:	25 years
Grace period:	4 years
Disbursement period:	4 years
Interest rate:	Variable, with and without IFF buy-down
Inspection and supervision:	1%
Credit fee:	0.5% on outstanding balances for IFF and 0.75% for OC

**OBJECTIVES:**

The purpose of the program is to contribute to sustainable natural resource management and preservation of the cultural heritage in Petén through economically sustainable pilot projects.

The specific objectives are to: (i) contribute to management of the Mayan Biosphere Reserve (RBM) through support for legalization of land tenure within the buffer zone; (ii) protect the country's cultural heritage by restoring archeological sites and helping promote ecotourism; and (iii) contribute to natural resource management by carrying out pilot projects in sustainable agriculture and forest protection and management.

**DESCRIPTION:** The project will consist of the following components:

1. **Legalization of land tenure in the RBM buffer zone**, to be carried out by drawing up a cadastre, processing titles, and setting up a land register to serve some 4,500 families.

2. **Cultural heritage protection and tourism services**, which calls for protecting and developing archeological sites and raising living standards in communities through their participation in low-impact tourism activities such as restoring archeological sites and installing small-scale infrastructure for tourism on such sites.
3. **Natural resource management**, to be implemented through pilot projects in sustainable agricultural production and forest management based on community outreach, organization and training; applied research will provide feedback to validate the technologies being promoted.
4. **Institutional strengthening** in the form of environmental training and education, consulting services, and equipment and vehicles to be provided in support of the modernization of public institutions and municipalities, strengthening of grass-roots organizations, and community participation in the protection and management of natural and cultural resources.

**PROVERTY  
TARGETING:**

This program is in line with the high priority accorded to poverty reduction under the Eight Replenishment, since it is targeted to low-income beneficiaries. These are farmers, both indigenous and mixed race in origin, who have migrated in recent years owing to a lack of economic opportunity in their place of origin (see paragraphs 2.29 and 5.18).

**ENVIRONMENTAL  
CLASSIFICATION:**

The Environment Committee, at its meeting of October 1, 1996, classified this as a Category III operation and approved the environmental summary.

**BENEFITS:**

The sustainable use of natural resources and preservation of Mayan cultural heritage in the Petén region will generate income and jobs for those living there, as well as a diverse range of benefits for the Guatemalan people and the world as a whole. Among the program's global ecological benefits are the capture of carbon dioxide and the genetic potential for future scientific discoveries inherent in the protection of forest areas.

The program's direct beneficiaries would be an estimated 4,500 families receiving title deeds, 15 communities participating in sustainable agricultural production, agroforestry and sustainable forest management projects, 780 persons trained at

decentralized public agencies, municipalities and community organizations, and five communities trained to set up microenterprises in tourism. Moreover, considering that program execution will result in economically sustainable management of natural and cultural resources and better capacity on the part of municipalities to serve the people's needs, it can be said that the entire population of Petén would benefit indirectly.

**RISKS:**

Government agencies in Petén are weak, since decentralization has begun only recently. The attendant risk would be mitigated by institutional strengthening under component 4 and by having the private sector execute the program under the oversight of the public institutions concerned. Uncertainty in land tenure was identified as a serious problem in consultations with the communities, and could stand in the way of farmer participation in the program activities. This risk would be minimized by land titling under component 1, consisting of drawing up a cadastre and titling activities, including titling already under way in the area covered by component 3 in connection with the German-financed Proselva project.

Insufficient interest by farmers in sustainable practices in natural resource use could make it difficult to achieve the program objectives. This risk has been minimized by holding community consultations and locating the program activities in areas where similar efforts have already taken place with financing from the German government and USAID and with support from NGOs, as well as participation by community organizations during the execution phase. Projects have been submitted for road building and upgrading and for settlement of refugees and repatriated individuals, which could lead to deforestation and migration to protected areas. This risk would be mitigated by including a general contractual condition in the program whereby such projects must be consistent with the strategy of the Petén Comprehensive Development Plan (PDI) and be accompanied by adequate EIAs and mitigation plans.

**THE BANK'S  
COUNTRY AND  
SECTOR STRATEGY:**

The Bank's strategy as agreed in principle with the Government of Guatemala for the 1996-1998 period includes four focal points: (i) assimilation of poor, indigenous and rural population groups into the sustainable development process; (ii) expansion and improvement of social services; (iii) modernization of the State; and (iv) development and growth of private productive sectors. The Bank's environmental

management strategy aims to support the government in setting up a solid environmental management and oversight system, in managing and conserving renewable natural resources, chiefly in degraded areas, and in conserving biodiversity, protecting the country's natural and cultural heritage, and providing environmental education. The proposed operation is in tune with those guidelines.

**PROCUREMENT:**

The threshold amounts for international competitive bidding are US\$250,000 for goods and services and US\$1.5 million for works. The loan contract is to stipulate the procedure for procurement below those threshold amounts (paragraphs 3.27 and 3.29).

The selection and contracting of consulting services is to take place in accordance with the Bank's procedures. As an exception to the Bank's procedures requiring publication of a general notice for the selection and contracting of services over US\$200,000, it is recommended that the Board of Executive Directors authorize private invitations to three or more qualified firms for the subcontracts to be carried out by the CEU (paragraph 3.30).

**PRECEDENT TO  
DISBURSEMENT:**

- (a) Creation of a Regional Consultative Committee (CCR) and an advisory committee for the program (paragraphs 3.5 and 3.6).
- (b) Signing of the agreement between INGUAT, IDAEH and SEGEPLAN for execution of the archeological sites and tourism services component (paragraph 3.9).
- (c) Presentation of draft contract between SEGEPLAN and CEU (paragraph 3.2).
- (d) Delegation by SEGEPLAN to the SEGEPLAN VIII office in Petén of authorization and processing of program disbursements requested by the CEU (paragraph 3.2).
- (e) Adoption of the program operating regulations (paragraph 3.17, etc.).

**OTHER SPECIAL  
CONDITIONS:**

- (a) Within 90 days after ratification of the loan contract, hiring by SEGEPLAN of a senior consultant to help initiate program execution (paragraph 3.2).
- (b) Within 90 days after the first disbursement, presentation of signed contracts between:
  - (i) SEGEPLAN and the CEU; and
  - (ii) SEGEPLAN and

the consultant to advise on program execution (paragraphs 3.2 and 3.3).

- (c) At the end of each year of execution, presentation by the borrower of an annual report covering the monitoring indicators agreed upon with the Bank, as well as two interim evaluations – after 30% and 65% of the Bank financing has been disbursed – indicating the degree to which the objectives and the physical and financial goals have been achieved, problems encountered and corrective steps taken for efficient program execution; and presentation of information on progress in developing new ways of managing funds recovered on archeological sites and tourist facilities (see paragraphs 3.37 to 3.41).
- (d) The borrower is to undertake to ensure that any new infrastructure and settlement projects within the program area are consistent with the priorities set in the Comprehensive Development Plan, and is to require presentation of EIAs to this end. Within six months after the loan contract enters into effect, and each year during program execution, a list of proposed projects is to be presented along with a plan for financing such studies, providing for institutional mechanisms to mitigate any adverse environmental impact. Fulfillment of this condition will be evaluated before feasibility studies are undertaken for the second stage of the program (see paragraph 5.29).

The loan contract will also include the Bank's standard conditions on, *inter alia*, audits, progress reports, inspections, maintenance, loan evaluation, and procurement.

## I. FRAME OF REFERENCE

### A. The unique features and significance of Petén

- 1.1 The region of Petén is located in northern Guatemala and covers one third of the country's area (35,854 km<sup>2</sup>). The region has a unique heritage of natural and archeological resources, and preserving it is of great interest to the country and indeed to the world. The topography is quite varied, with soils subject to drastic use restrictions given their physical and chemical properties, and one of the most important natural forest complexes in all of Central America.
- 1.2 In 1990, with a view to protecting the natural and archeological resources of Petén, the government set aside 15,553 km<sup>2</sup> in the northern part of the region as the Mayan Biosphere Reserve (RBM), with a 15-km wide strip to the south as a buffer zone. There are 11 natural areas in southern Petén which have been under legal protection since November 1995. These areas form the middle links in a chain of protected areas that stretches from Mexico to Belize. However, deforestation within Petén is proceeding at an estimated 75,000 ha/year, causing erosion and rapid degradation of ecosystems.
- 1.3 Petén, with its ancient Mayan monuments, offers one of the highest concentrations of archeological sites in Mesoamerica. There are over 175 quantified major sites and over 1,000 second-order sites in the region. This area, with its Mayan ruins and wealth of ecological resources, is one of the continent's most valuable in terms of historic and ecological value. However, with the exception of the Tikal National Park, an archeological complex that has been declared a monument of the world's heritage by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and attracts 127,000 visitors each year, these sites have been neglected and looted.
- 1.4 Given the natural and cultural features of Petén, cultural tourism and ecotourism offer sustainable alternatives for the region's development. They would allow the sites and their natural surroundings to be preserved, and would implement sustainable technologies within an institutional framework of appropriate resource management.

### B. Development issues in Petén

#### 1. Environmental and poverty issues

- 1.5 Until midway through the last century, Petén was quite isolated from the rest of the country, and contained small settlements devoted to wood, chicle and black pepper farming. Beginning in the 1970s, new access roads and settlement policies fueled a population

explosion as poor campesinos moved in from the country's south. Between 1959 and 1995, the population grew from 15,000 to over 310,000, for a rate of 9.5% per annum, compared to a national rate of only 2.9%.

- 1.6 Most of the immigrants came to the department in search of farmland, since insufficient land and employment alternatives were available at home. They settled on 20 to 45 ha lots of public land which they "took over", since most the land belonged to the government, and some paid for "improvements" made by the original occupants. Most do not hold legal title to their land, given the difficulty and cost of title processing and registration with the property register located in Guatemala City.
- 1.7 These immigrants are not familiar with sustainable cropping systems and are not prepared to make more of an investment in their land because of their uncertain tenure. They engage in slash and burn agriculture, sowing corn and beans which can be sold and also serve as the family's staple diet. Some combine agriculture with collection of nonwood forest products such as chicle, ornamental leaves (*xate*) and allspice – all marketable internationally – or small-scale livestock raising. After just a few years, declining yields on these infertile soils force the farmers to move on. The lack of farmland in southern Petén has caused internal settlement patterns to stretch north to the buffer zone and in some cases even into the RBM itself.
- 1.8 The depletion of forest resources is apparent in two areas. The first is the development of wood products with selective harvesting of more valuable species (mahogany and cedar), which encourages penetration into new areas of unplanned settlement as inroads are opened up. The second is the depletion of commercial nonwood products of the forest (chicle, allspice and *xate*) as the forest area shrinks.
- 1.9 About 30% of Petén's population is indigenous. Most are *q'eqchi* immigrants originally from Alta Verapaz; in recent years several groups of indigenous refugees have returned from Mexico as well. According to cultural tradition, women play more of a role in activities that can be combined with household tasks, such as growing fruit and vegetables, breeding small farm animals, and engaging in crafts or commercial activities. (See also paragraphs 5.25 and 5.26 on the role of women.) Within Petén's population as a whole, 75.4% live below the poverty line, 58.4% of them in extreme poverty. These rates are slightly higher than the national average. Illiteracy in Petén runs at 50%, while the national figure is 38%. 1/

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1/ Government Program 1996-2000, SEGEPLAN, Guatemala 1996.

- 1.10 The rapid degradation and loss of natural resources in Petén could further erode the possibility of sustainable socioeconomic development in the future, and is exacerbated by inadequate land use planning and land tenure provisions (a mere 5% of land is covered by registered title deeds).

## 2. Institutional setting

- 1.11 During the period from 1986 to 1990, the legal and inter-institutional groundwork was laid for natural resource management in Guatemala. The Protected Areas Act and the Environment Act were passed, giving rise to the National Council on Protected Areas (CONAP) and the National Environment Commission (CONAMA).
- 1.12 Guatemala has been decentralizing major public institutions since the early 1990s, including those involved in managing natural and cultural resources. The main institutions which are present in Petén and have an impact on its sustainable development are the General Secretariat of the Economic Planning Council (SEGEPLAN), CONAP, the Office of the Deputy Minister for Agriculture (MAGA), the National Agroindustry Institute (INTA), the Guatemalan Tourism Institute (INGUAT), and the Institute of Anthropology, Ethnology and History (IDAEH). Also, budget transfers to the municipalities, 12 of which are in Petén, - which establish, improve and administer basic services for the rural and urban population - increased from 8% to 10% of the national budget in 1996.
- 1.13 The Regional Council on Urban and Rural Development (COREDUR) created by Legislative Decree 52/87 is the highest authority coordinating and organizing public administration in Petén. The Council's membership is as follows: the Council Chairman is the department's Governor, and the members include the mayors of all the municipalities, the Chief of the Regional Office of SEGEPLAN VIII, representatives of the Ministries of Defense, Education, Health, Culture and Sports, Public Works, Agriculture, Finance, External Relations, Energy and Mines, and Labor; two representatives of cooperatives, two representatives of private-sector associations (industrial, agricultural, trade and financial), and two representatives of NGOs. Within Petén, SEGEPLAN VIII plays a leading role in coordinating actions by the public sector and externally financed projects, and acts as the COREDUR technical secretariat.
- 1.14 Despite the initial progress made on modernization and decentralization, institutional weaknesses persist in several of the institutions which are active in Petén. Their facilities are inadequate and their staff and equipment insufficient for proper performance of their duties. Procedures are cumbersome and decision-making is centralized to some extent in Guatemala City.
- 1.15 The exceptions to this situation of institutional weakness are: IDAEH, which has adequate experience in investigating and restoring



historic monuments and managing archeological sites in coordination with INGUAT; SEGEPLAN, which is equipped to carry out its mandate to support COREDUR and coordinate regional state institutions; and INGUAT, with its extensive experience in promoting tourism and managing low-impact cultural tourism and ecotourism, in coordination with IDAEH.

- 1.16 The institutions most in need of strengthening are the following: (i) INTA, which needs updated surveying and registration procedures to formalize land tenure, including automation and a new land registry in the Petén region; (ii) CONAP, principally in connection with managing buffer zones with community participation, oversight and modernization of operating procedures in forest concessions held by communities; and (iii) municipalities, in administrative and financial management and project preparation to obtain access to existing social funds (FONAPAZ, FIS, etc.) in order to improve municipal services and finances.

C. Strategy for sustainable development in Petén

- 1.17 The national and international priority of sustainable development in Petén is evidenced by the presence of several bilateral cooperation projects and support from the private sector. The results of these efforts are apparent in the Petén Integrated Development Plan (PDI) prepared by SEGEPLAN with German financing between 1990 and 1992.
- 1.18 The PDI was initiated in response to pressures to develop Petén through mass settlement and by building road infrastructure. Based on a diagnostic study of the chief economic, social, environmental, institutional, and infrastructural problems and in view of regional development opportunities, the PDI puts forward a strategy and a series of interrelated projects to achieve sustainable development in Petén.
- 1.19 The proposed projects focus on: (i) agricultural diversification, including soil conservation measures through agroforestry activities; (ii) support for agricultural and forestry commercialization; (iii) sustainable management and diversification of wood and nonwood forest products; (iv) institutional strengthening for decentralization, interinstitutional coordination and monitoring, with community participation, of activities in protected areas and buffer zones; and (v) promotion of low-impact tourism as a factor in preserving Petén's cultural and natural surroundings. Annex I-1 presents the elements of the strategy and a full list of projects proposed by the PDI, as well as sources of financing for existing projects and the way in which the program proposed herein relates to the various areas of action proposed.
- 1.20 One of the current administration's priorities is to promote economic and social development in the country's poorest areas, generally the source of migration to Petén. The main instruments

for achieving this are national social programs financed by the various existing funds, such as the Social Investment Fund (FIS) and the National Peace Fund (FONAPAZ). It is hoped that as these efforts raise living standards, migrant pressures on Petén will be alleviated somewhat.

D. Projects under way

- 1.21 Several sustainable development tourism and projects now under way in Petén, with support from bilateral cooperation institutions and participation from nongovernmental agencies, would complement the prospective program. They encompass areas such as management of forestry and agroforestry resources with community participation, development of cultural ecotourism, restoration of archeological monuments, legalization of land tenure, and creation of community revolving funds.

- 1.22 Among the successful experiences are the following:

1. Management and protection of protected areas in Petén

- 1.23 The two major projects in this area are: (i) the Mayan Biosphere Project, financed by USAID, in support of natural resource management and protection for forests and biodiversity within the RBM. This project seeks, through international nongovernmental organizations (NGOs) with experience in this area, to prepare and implement management plans for the RBM and to protect the reserve with community participation and strengthening of CONAP oversight capacity; (ii) the Proselva Project, financed by the German government, which seeks to strengthen capacity to manage protected areas in southern Petén with community participation, including training CONAP staff to work in this area and supporting communities in the land titling process.

2. Management of forest and agroforest resources

- 1.24 The main projects having achieved positive results in the implementation of agroforestry activities and forest management for natural resource conservation through community participation are: (i) the Community Forest Management Project of the Tropical Agricultural Training and Research Center (CATIE), which is part of the USAID-financed Mayan Biosphere Project; (ii) the Managing Forests for Nonwood Products Project being executed by Conservation International with financing from the IDB (ATN/SF-4676-GU) and USAID; (iii) the Agroforestry Project for the cooperatives of Río de la Pasión, financed by Gesellschaft für Technische Zusammenarbeit (GTZ) of Germany; and (iv) the PROFRUTA Project being carried out by the government to promote the use of fruit trees in 10 communities. All of these projects call for community organization, technical and financial assistance in implementing agroforestry activities for natural resource conservation. Similar

experiences outside Petén include the Chixoy River Basin Management Project (821/SF-GU) financed by the IDB.

### 3. Archeological restoration and development of ecotourism

- 1.25 The most well-known experience is management of Tikal Park, which currently attracts about 127,000 visitors each year. It is administered jointly by INGUAT and IDAEH and is financially self-sustaining; i.e. the entrance fees are sufficient to cover operating and maintenance costs. However, the Tikal entrance fees are deposited in a general fund for Guatemala City, and only 28% of receipts are returned to the park. Efforts at biological preservation in the area have seen positive results, including an increase in the jaguar population; moreover, this is a significant source of income for local communities. Several archeological restoration projects are under way outside of Tikal. These include research and restoration of Yaxhá, financed by Germany's Kreditanstalt für Wiederaufbau (KfW), and work in the Petexbatún area with scientific support from Vanderbilt University of the U.S.

### 4. Land titling projects

- 1.26 The three most important projects to formalize land tenure through cadastral activities and land titling are the Proselva Project financed by the German government in the buffer zones of protected areas in southern Petén, and the Tayasal and Laguna Perdida projects financed by USAID in the RBM buffer zone. These projects also call for strengthening INTA procedures and staff to facilitate INTA participation.

### 5. Community revolving funds

- 1.27 Guatemala has had several positive experiences with setting up revolving funds. For instance, the Development and Social Service Institution Financing Assistance Foundation (FAFIDESS) has organized some 100 community banks in the past seven years in several departments. In the Petén area, however, experiences with revolving funds are very recent, mainly by NGOs such as CARE and Génesis Empresarial, which act chiefly as financial intermediaries in lending for small farmers lacking access to formal credit.

### E. Lessons learned

- 1.28 The success of several of the above projects is attributable to effective community participation in activities such as management of protected areas and archeological sites, sustainable agroforestry production, and decision-making in setting property limits for land titling. Accordingly, it has been crucial to persuade communities of the financial returns on appropriately managing natural and cultural resources. In addition to serving as a catalyst for community organization, this has a multiplier effect

in training other community members according to their culture and most immediate perceived needs.

- 1.29 To ensure that this process of community organization and participation is effective, the specific projects should be small in scale and include promotion, outreach and community organization actions involving local technicians and provision of seed capital (in view of the extreme poverty prevailing).

F. Bank strategy

- 1.30 The Bank's strategy as agreed upon with the Government of Guatemala for the 1996-1998 period and as stated in the draft country paper (as of June 6, 1996) sets forth four focal points: (i) assimilation of poor, indigenous and rural population groups into the sustainable development process; (ii) expansion and improvement of social services; (iii) modernization of the State; and (iv) development and growth of private production sectors.
- 1.31 In view of the foregoing, the Bank's specific strategy for environmental management is to back the government in setting up a sound environmental management system from an institutional and regulatory standpoint, including national, regional and local levels; management and conservation of renewable natural resources, chiefly degraded areas; conservation of biodiversity; protection of the country's natural and cultural heritage; and environmental education. The program is consistent with the priorities set under these strategies.

G. Program design

- 1.32 The program will support a solution to environmental issues by dealing with the deforestation and degradation caused by low-income farmers using unsustainable farming methods owing to a lack of viable economic alternatives and uncertain land tenure. The program will also create job opportunities through promotion, restoration and development of the cultural heritage located around these communities.
- 1.33 The program design, in the context of the PDI, seeks to reflect the following main points: (i) the results of community consultations and the environmental impact assessment carried out in designing the program; (ii) positive experiences of other projects in solving problems in Petén; (iii) complementarity with major projects under way in Petén within the PDI strategy, in terms of geographical area and activities; (iv) flexible and transparent execution mechanisms with private sector participation, taking into account positive experiences with public institutions.
- 1.34 To accomplish the foregoing, four areas of action are proposed: (i) sustainable development of affected areas in southern Petén in the form of forestry and agroforestry, thereby diminishing the need

for overuse and development of new forest areas; (ii) to alleviate the need to develop new areas and as a new source of alternative income (other than agriculture and forestry) for new immigrants to the north of Petén, support for implementation of sustainable economic activities such as low-impact tourism, through restoration of archeological sites and community participation in tourism-related activities; (iii) support for adequate management of the Mayan Biosphere Reserve by legalizing land tenure in the buffer zone (complemented by USAID-financed protection for areas within the Reserve); and (iv) further modernization of management of natural and cultural resources through training for decentralized public agencies, municipalities and community organizations. Given the size of Petén and environmental degradation within it, the current problems can hardly be dealt with under a single program. The program is divided into two stages. The first, proposed herein, is based on pilot areas with an ongoing evaluation system that will contribute to the design of a second stage on a larger scale.

## II. THE PROGRAM

### A. Objectives

- 2.1 The program purpose is to contribute to sustainable management of natural resources and preservation of the cultural heritage in Petén, through economically sustainable pilot projects targeted to low-income groups.
- 2.2 Specific objectives are as follows: (i) legalization of land tenure in the RBM buffer zone to improve management of the Reserve; (ii) protection of the cultural heritage by restoring archeological sites and promoting ecotourism; (iii) implementation of pilot projects in sustainable agriculture and forest protection and management; and (iv) support for management of natural and cultural resources by strengthening institutions, building up grass-roots organizations, and promoting community participation, to facilitate implementation of the PDI strategy and preparation of the second stage of the program. The logical framework is included in Annex II-1.

### B. Description of components

1. Component I: Legalization of land tenure in the Mayan Biosphere Reserve buffer zone
- 2.3 The RBM, located north of parallel 17.10 (see map), consists of core areas classified as national parks (administered by CONAP) and biotopes (managed by the San Carlos University Conservation Center), and multipurpose areas. Some population groups were located within the multipurpose area and even within the Sierra del Lacandón Park before the Reserve was founded in 1990. Other settlers entering the Reserve in recent years have engaged in slash and burn agriculture.
- 2.4 Most producers in the buffer zones lack legal title to their land. This component will serve some 4,500 families in an area that complements the titling projects under way in Tayasal and Laguna Perdida. The proposed activities, to be carried out in the eastern and western portions of the buffer zone, include: (i) a property cadastre (field surveying with community participation); (ii) processing titles through INTA; and (iii) setting up a land register. No major property rights conflicts are anticipated, since the property boundaries have generally been set among neighbors in the communities identified.

2. Component II: Protection of cultural heritage and tourism services

- 2.5 This component calls for protecting and developing archeological sites and raising living standards in communities through their participation in low-impact tourism activities. This will involve two activities: (i) restoration of archeological sites and (ii) construction of small-scale tourism infrastructure on restored sites.

a. Restoration of archeological sites

- 2.6 The program sites were selected by the following criteria: (i) they have a high development potential given their archeological content and natural surroundings; (ii) they offer diversified products that complement Tikal; and (iii) they are reasonably easy to access. The work will be done on monuments already researched. Restoration would be partial to give visitors an impression of original structures without changing the natural surroundings of the site; this will also help keep costs down. The methodology will be in keeping with the parameters set by UNESCO. The program sites are as follows:

- a. **Yaxhá Group (Yaxhá, Tzikín-Tzakán).** The Yaxhá site is located within the archeological triangle marked out by Yaxhá, Nakúm and Naranjo, which has broader coverage than the site near Tikal. It contains several monuments; among them, the largest pyramid is already being restored. About 13 km away by tertiary road is the Nakúm site, and nearby is Naranjo. Both are compact sites with monuments of great interest, some of which are being restored. Yaxhá is located at the foot of a lagoon of the same name. On the opposite side is a peninsula, Topoxté, with a small religious site which has been restored. All these restorations have been carried out with German financing from KfW. The area has great tourism potential, and archeologically speaking is at least as important as Tikal. In Yaxhá, twin temples and the main roadway will be restored. The Tzikín-Tzakán site, located one hour from Yaxhá, is of great archeological interest with its extraordinary structure consisting of a continuous 50-meter dome that will be restored.
- b. **Petexbatún Group (Dos Pilas, El Duende, Aguateca and Arroyo de Piedra sites).** This group of sites is highly significant in the history of Mesoamerica, as they reflect the last period of war before civil strife caused the collapse of the Mayan culture. They offer an interesting circuit where visitors can observe the results of the war and enjoy the virgin river surroundings.
- c. Dos Pilas is an important city because of its glyphs, which have served to decipher an important part of Tikal's history.

El Duende, which has a pyramid and a network of caves, is located 10 minutes from Dos Pilas by forest road. A 30-minute boat ride takes visitors to Aguateca and Arroyo de Piedra, walled cities with fortifications and important stelae (carved stone blocks). The work includes restoration of: (i) lithic art in the form of stelae, steps and a palace at Dos Pilas, (ii) the upper section of the larger pyramid and steps at El Duende; (iii) sections of the defense wall, central plaza steps and a palace at Aguateca; and (iv) palaces at Arroyo de Piedra.

b. Small-scale infrastructure for tourism

- 2.7 The proposed infrastructure will be simple, rustic constructions using local materials. Small rest centers for visitors will be equipped with lavatories and sanitary services, arts and crafts stands, refreshment stands, information booths, and storage. This infrastructure will be needed in Yaxhá, Dos Pilas and Aguateca.
- 2.8 Three low-cost floating wooden docks will be financed, one in Yaxhá for crossing the Topoxté peninsula, one to provide access to Aguateca, and one to provide access to Dos Pilas. The stretch between Dos Pilas and the river will need to be upgraded to accommodate four-wheel drive vehicles.
- 2.9 The work will benefit communities in the area by creating jobs in site restoration, administration and surveillance. The local population will have opportunities as microentrepreneurs, concession operators at arts and crafts stands and food stands, and tourist guides. This component includes training for community members, promotion, and a small US\$50,000 revolving fund (US\$25,000 for each group) to provide seed capital for microenterprises.

3. Component III: Natural resource management

- 2.10 This component will promote natural resource management by communities to reconcile land use with sustainable methods, raising yields and incomes and reducing the deforestation rate, and thus address the widespread poverty (including extreme poverty) prevailing in the communities concerned.
- 2.11 This component is to include pilot projects in agroforestry and sustainable agriculture systems on 10,080 ha and community forest management on 11,350 ha, in areas bordering on protected areas in southern and central Petén. The proposed community organization, training and outreach activities will cover 15 communities, or 760 families. Applied research will be conducted on individual farm parcels and in community forests to provide feedback and validate the technologies being promoted, and to facilitate setting up an adequate ongoing monitoring and evaluation system.
- 2.12 The proposed technologies have been validated in conditions similar to those prevailing in Petén elsewhere in Central America, by



CATIE, FAO and universities. They have been shown to be appropriate for Petén by the preliminary results of several pilot programs strategically located in the region, financed mainly by USAID, Germany, the Nordic countries, and the International Union for Conservation of Nature and Natural Resources.

- 2.13 Areas have been identified for implementation of pilot projects during a first four-year stage of the program. Community consultations and preliminary socioeconomic studies have been carried out, in addition to land titling actions financed by the Proselva project that will facilitate management of these areas. These actions, however, may be carried out in other poor communities with similar features as well (see Chapter III). 2/

a. Agroforestry and sustainable agricultural production systems

- 2.14 The aim is to reconcile the need to generate short-term income with preserving natural resources for medium- and long-term sustainable production on the farms of campesinos benefiting from the program.
- 2.15 The farming systems to be promoted combine different components that have been shown to be feasible in the region. Sustainable agriculture activities include soil conservation (living and other barriers, drainage strips) and agronomic measures (contour farming, green manure, crop rotation, improved varieties); diversification of crop production (pineapple, chile, sesame seed) and enrichment of family vegetable gardens. Agroforestry and forest grazing systems include living barriers and other combinations of crops and trees, small orchards, small livestock raising, and forest thicket reserves for energy and other local uses. The program will finance technical services and supply of inputs (plants, seeds, materials for minor infrastructure) for setting up the systems. Also included is financing for training in management of five agroforestry revolving funds totaling US\$130,000 to serve as sources of financing in isolated areas currently lacking banking services, based on local and national experiences in setting up similar funds (see paragraph 1.27). The funds will facilitate continued application of sustainable production techniques adopted under the program. The program will also support arranging for title deeds for beneficiaries' property by expediting files, thus complementing action under the Proselva project.

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2/ The areas identified are: eight communities in the area of influence of the San Román Biological Reserve, three cooperative communities bordering the Usumacinta and La Pasión rivers and adjoining the Sierra del Lacandón Park, four communities in villages within the area of influence of the pine tree reserve in Poptún and the protected area of Montañas Mayas.

b. Pilot community forest management

- 2.16 The aim is to manage secondary forests already being tapped for different resources by developing, on a sustainable basis, a larger number of nonwood products for the international market as well as wood products to meet local and domestic demand, in order to add value to the forest and protect forest resources from deforestation. Community forest management will take place under two land tenure regimes: cooperative forests (identified area of Montañas Mayas) and concessions to State-owned land (San Román, Poptún) to be granted to communities by procedures already established in Petén.
- 2.17 This component will include preparing forest management plans, arranging for forestry activities and concessions (fire prevention and phytosanitary protection, forest repopulation). Financing will be provided for technical assistance, materials and basic equipment as needed for initial implementation of management plans. The communities will contribute labor and local materials (e.g. seeds of wood and nonwood species). In the area of Poptún, which has been identified, technical assistance will be provided to draw up management plans for 10 private farms adjacent to the community concession forest, in view of interest shown by farmers to bring the entire pine reserve under management.

c. Forestry and agroforestry and applied agricultural research

- 2.18 The program will finance applied research in support of productive activities promoted in the area. Two approaches are included: under the first, experimental parcels would be set up on producers' farms and in community forest areas; the second calls for forestry and agroforestry research on an experimental farm administered by the Petén-San Carlos University Center (CUDEP) for forestry and a agroforestry experiments. Research on reproducing and sowing nonwood products (xate, pepper) on 100 ha is important because of its commercial potential, and because these products are becoming more and more scarce in the forest.

4. Component IV: Institutional strengthening

- 2.19 This component calls for: (i) raising environmental awareness and strengthening grass-roots organizations and public institutions in the region to enhance their competency and ability to participate in the sustainable development of Petén; (ii) assisting in organizational strengthening for municipalities to enable them to improve their finances and delivery of services to the community and to take an active role in the program's second stage; and (iii) preparing a feasibility study for a second stage of the program based on experience acquired during this stage.
- 2.20 The component is divided into three subcomponents: (i) training, (ii) consulting services, and (iii) equipment. The preliminary

terms of reference for training and consulting services are available in the EN2 files.

a. Environmental training and education

- 2.21 The training planned will benefit the 10 municipalities affected by the program, several community organizations and five institutions (SEGEPLAN, DIGEBOS, INTA, CONAP and INGUAT). The beneficiaries would be an estimated 380 participants from those institutions and 400 from grass-roots organizations. Given weaknesses in the region's institutions and municipalities, the course modules cover a broad range of administrative, financial and technical environmental issues.
- 2.22 The public sector training modules would be as follows: (i) administration and finance for municipalities, including courses on accounting, finance, administration, systems and information technology, government structure and aspects of municipal legislation and taxation; and (ii) administration and finance for public institutions, including similar courses addressed to other governmental agencies. The training for grass-roots organizations and public agencies would include such issues as: (i) planning and projects; (ii) community organization and participation; and (iii) environmental training, including courses on protecting Petén's ecosystems, fire prevention, management and control of natural and forest resources, use of agricultural chemicals and their environmental impact.
- 2.23 The tourism business training courses for grass-roots organizations in communities are included under component II, and training in sustainable agricultural and forestry development technologies are included under component III.
- 2.24 The environmental awareness campaigns will include education for children, adults and military troops deployed in Petén, imparted by radio, television, posters and town meetings. Information will be furnished on forest fire control, deforestation, erosion, and opportunities for sustainable development in the form of protection of archeological sites, ecotourism, agriculture and sustainable forest management.

b. Consulting services

- 2.25 Two consultants will be hired to assist the six major municipalities in the program areas to improve their collection, accounting and information technology systems. They will make visits from time to time during the four years of program execution for monitoring and adjustment purposes.
- 2.26 Consulting services will also be used to address weaknesses detected in the diagnostic study on government agencies present in Petén in connection with the proposed activities. Four

institutions will receive such support in Petén. SEGEPLAN will be strengthened through consulting services to enable it to fulfill conditions precedent to disbursement and perform program promotion, monitoring and follow-up (see Chapter IV). CONAP will be strengthened to expedite arrangements for forestry concessions, regional institutional restructuring for administration of protected areas, and management of the RBM buffer zone with community participation. It will also receive assistance in setting boundaries for expansion of the Tikal area and the Yaxhá-Nakún-Naranjo triangle into a single protected area in support of the government's request that UNESCO declare this a monument of the world's heritage. INTA will be strengthened in supervising modernization of its operating systems, including automation of titling procedures and support for arrangements to set up a property registry in Petén. MAGA will be strengthened to assist the Deputy Minister in Petén in reorganizing and enforcing regulatory matters in Petén. The program will also support creation of a trust fund and a mixed State-private foundation to facilitate maintenance and restoration of archeological sites with funds collected in Petén.

- 2.27 Considering the experimental nature of the first stage of the program (GU-0081), a feasibility study for the second stage will be financed. Preparation of the study will begin once 65% of the financing has been disbursed. The second stage will be designed with larger-scale investments and broader geographic coverage, taking into account experiences acquired during execution of the first stage.

c. Equipment and vehicles

- 2.28 The regional offices of the four agencies named in paragraph 2.26, like the municipalities, lack adequate equipment, office supplies and vehicles to perform their duties in promoting sustainable development in Petén. It is proposed that six vehicles be purchased, one for each of the six major municipalities in the program area, to assist in ongoing promotion of component III in the communities, and five vehicles and 13 motorcycles for the State institutions concerned. Among the remaining equipment are computers, photocopiers, desks and office supplies. Financing will also be provided for materials such as maps to be used by participating entities in supervising program execution.

C. Beneficiaries

- 2.29 The population to benefit directly from the program are low-income small-scale producers, including: (i) families receiving titles to land they occupy within the RBM buffer zone (an estimated 4,500 families) (component I); (ii) approximately 350 persons to be hired to restore archeological sites, families participating as microentrepreneurs, guides and guards at the sites; and (iii) some 760 producers and their families (4,300 persons in all) to

participate in agroforestry development, sustainable agriculture, and forestry management (component III).

- 2.30 The indigenous communities participating in the project include communities in the western part of the RBM buffer zone (land tenure legalization under component I), communities in the Petexbatún area (component II) and communities in the San Román and Montañas Mayas areas (identified for component III). Those living in the Montañas Mayas area returned to Guatemala in 1995 from refugee camps in Mexico and belong to four different ethnic groups. Most of the population in the remaining project areas are of mixed race.
- 2.31 Component IV (institutional strengthening and environmental education) will benefit the entire population of Petén, estimated at more than 300,000. Also, components I, II and III will generate indirect economic benefits for the region, the country and the world overall, by conserving the natural resources and archeological sites which are Guatemala's unique heritage and main tourist attractions.

D. Status of program preparation

- 2.32 The components were designed on the basis of community consultations to reflect the opinions of leaders and members of various communities as to the program activities and their interest in participating in implementation. The environmental impact assessment (EIA) was made available to the public and sent to CONAMA for approval as required in Guatemala. The feasibility study and preliminary designs have been delivered by the consulting firm hired to produce them.
- 2.33 The participating agencies have minimum basic capacity to begin program implementation. Among them, both CONAP and INTA have received partial strengthening from USAID and KfW to carry out projects in management of the RBM and Proselva. The additional strengthening needed will be provided under this program. The technical report on the institutional diagnostic study outlines the terms of the proposal for strengthening.

E. Cost and financing

- 2.34 The total program cost is an estimated US\$22 million. Direct costs are US\$14.17 million, associated costs US\$0.77 million, and administrative expenses US\$1.97 million. Contingencies and escalation account for US\$2.54 million of the total, and finance charges for US\$2.55 million. A summary of costs by component and sources of financing is shown in Table 1, and cost details are available in the program technical files.
- 2.35 The IDB financing would be US\$5.7 million, from the Intermediate Financing Facility (IFF) and US\$14.1 million from the ordinary capital. The local counterpart would be an estimated

US\$2.2 million equivalent, US\$0.15 of which would be contributed by the communities benefiting from the program. This sum represents the value of labor required for investments under the natural resource management component involving direct community participation.

TABLE I

PROGRAM COST (US\$)					
CATEGORY	IFF	OC	COUNTRY	TOTAL	% TOTAL
ENGINEERING AND ADMINISTRATION		1,970		1,970	8.9
Administration and supervision		1,970		1,970	8.9
DIRECT COSTS	4,530	7,890	1,750	14,170	64.4
Legalization of land tenure		1,880	0	1,880	8.5
Cultural heritage and tourism		3,730	800	4,530	20.6
Natural resource management	4,530	320	950	5,800	26.4
Training and strengthening		1,960	0	1,960	8.9
ASSOCIATED COSTS		770	0	770	3.5
Consulting, studies for stage II and monitoring		770	0	770	3.5
SUBTOTAL	4,530	10,630	1,750	16,910	76.8
UNALLOCATED	720	1,570	250	2,540	11.3
FINANCE CHARGES (including inspection and supervision)	450	1,900	200	2,550	11.9
TOTAL	5,700	14,100	2,200	22,000	100
TOTAL FOR PROJECT	26	64	10	100	100

2.36 The program components are to be executed fully within four years. A brief description of direct costs by component follows:

- a. Engineering and administration (US\$1.97 million). Personnel and operating costs of the central executing unit.
- b. Legalization of land tenure in the RBM buffer zone (US\$1.88 million). Subcontracting for land title deeds for some 4,500 beneficiaries.
- c. Cultural heritage and tourism services (US\$4.53 million). Restoration of archeological sites in Yaxhá (US\$1.40 million) and Petexbatún (US\$1.50 million), respectively, and US\$1.58 million for infrastructure and tourism development. A

large part of the cost of restoration represents labor and local materials; equipment and tools account for about US\$0.36 million. Most of the investment in tourism is for infrastructure with a high percentage of local labor and materials, as well as US\$0.05 million for two microenterprise revolving funds.

- d. Natural resource management (US\$5.8 million). Subcontracts for technical assistance and incentives for technological change and land use. Activities include US\$0.7 million for supervision by technical assistance organizations, US\$0.22 million for small-scale infrastructure in the form of nurseries and sheds in communities, US\$0.8 million for machinery and equipment, US\$1.45 million for inputs and materials, US\$2.35 million for labor, personnel costs and services (US\$1 million for technical outreach staff, US\$0.6 million for specialized consulting in research and training, and US\$0.75 million for other services), as well as US\$0.13 million for five community revolving funds, and US\$0.15 million for labor contributed by communities for component activities.
- e. Institutional strengthening (US\$1.96 million). Includes US\$0.4 million in equipment (US\$0.25 million for vehicles), US\$0.46 million for environmental education and training, and US\$1.1 million in consulting equipment.

### III. EXECUTION OF THE PROGRAM

#### A. Means of execution

- 3.1 Program execution is based on the following: (i) the results obtained in community consultations have been used in designing the program; (ii) the private sector will be given a leading role in carrying out the main activities of the program; (iii) the communities will participate through grass-roots organizations and the actions of individual farmers. (See Operating Regulations in Annex III-1.)
- 3.2 The government body with primary responsibility for the program is SEGEPLAN. Program execution itself will be entrusted to a private entity selected by means of an international competition to serve as the central executing unit (CEU), hired by SEGEPLAN and supervised by SEGEPLAN's regional office in Petén (Region VIII). This office will receive support from a short-term consultant specializing in bidding and contracting during the initial stage of the program, plus a senior consultant throughout the project execution period.
- 3.3 The CEU will subcontract with other entities to carry out most of the subcomponents, using its own staff to execute the others as described below. The CEU will be responsible for: (i) administering program execution; (ii) ensuring that all co-executing agencies selected to carry out the various subcomponents comply with the terms and conditions of their contracts; (iii) collecting and submitting all technical progress and financial reports to SEGEPLAN and the Bank; and (iv) maintaining close coordination with SEGEPLAN, the Regional Consultative Committee and other participating institutions.
- 3.4 The CEU will have at least two subdivisions: a financial administration department in charge of contracts, bidding, accounting and disbursements; and a technical department.
- 3.5 A Regional Consultative Committee (CCR) will be formed with a membership that includes representatives of the MAGA in Petén, the departmental government, CONAP, INTA, INDAEH and INGUAT; one representative of the municipalities; one representative of the grass-roots organizations; and the SEGEPLAN delegate, who will act as chairperson. The mandate of this committee will be to: (i) review the plans and strategies devised for the program; (ii) make recommendations concerning its execution; and (iii) ensure coordination among institutions in Petén.
- 3.6 A central advisory committee will be created, to be made up of senior representatives of the MAGA, the Ministries of Finance and Culture, SEGEPLAN, INTA, CONAP and INGUAT. This committee will



select the entity that will be hired by SEGEPLAN VIII to act as central executing unit, and will resolve matters relating to program execution which exceed the mandate of the CCR. In its role of technical secretariat to the committee, SEGEPLAN VIII will ensure that COREDUR - the region's senior coordinating body (see paragraph 1.13) - is kept up to date concerning progress under the program (see organization chart for execution in EN2 files).

B. Program operations

1. Component I

- 3.7 Most farmers in the RBM buffer zone do not have legal title to their plots. This component will help some 4,500 families obtain title to their land in an area complementing titling projects already under way in Tayasal and Laguna Perdida area. The activities to be carried out in the eastern and western portions of the buffer zone include: (i) a cadastre (field surveying carried out with community participation); (ii) processing of land titles by the INTA; and (iii) creation of a land register.
- 3.8 For purposes of these activities, the CEU will hire an NGO or private firm to carry out cadastral and titling activities under the supervision of the INTA. Help will also be provided for the establishment of a land register office in Petén to facilitate the registration of land titles issued by the INTA.

2. Component II

- 3.9 This component includes preservation of archeological sites, building of small-scale tourism infrastructure and promotion of tourist attractions. An agreement for execution of these activities will be signed between the INGUAT, IDAEH and SEGEPLAN. Works projects to restore archeological sites will be organized into three lots for which contracts will be let by the CEU through the tendering process. The winning bids will be chosen with the help of an archeology committee made up of the Director of the IDAEH, the Deputy Minister of Culture and Sports, an expert from Vanderbilt University, and a Guatemalan archeologist belonging to the Archeology Council (to be selected by the Minister of Culture and Sports). With the assistance of the Department of Prehispanic Monuments, this committee will also monitor the restorations themselves to ensure strict compliance with the methods specified in the contracts for restoration works. Among other basic criteria, the winning contractors will be required to have previous work experience on Mayan archeological sites in Petén. Universities with prior experience working on these same sites are expected to submit bids, including the University of San Carlos. The IDAEH

will be in charge of maintaining these sites. 3/ Funds have been included under component IV (institutional strengthening) to train personnel who will be responsible for maintenance of the sites, especially those of the local community.

- 3.10 Work at archeological sites will be carried out under the supervision of the IDAEH, by specialized entities (universities) that have participated in similar excavations and have experts in archeology on staff. As well, the work methods used will be reviewed by the National Archeology Council aided by archeologists that have taken part in earlier excavations. Petén has an abundant work force with expertise in archeological digs owing to the numerous restorations carried out over the years.
- 3.11 Construction of tourism infrastructure will be let by the INGUAT in two lots. Given the modest amounts and rustic nature of these works, local companies will be particularly interested in bidding on them. Promotional activities and training for members of the community under this component will be assigned to the INGUAT, which is already engaged in similar tasks.
- 3.12 A separate committee will be created at each site to award concessions for the operation of tourism infrastructure (crafts and food service stands, dock operation, etc.), with representatives from the INGUAT, the municipality, the local ecotourism committee, and the Regional Women's Committee (CRMP). These committees will be responsible for consideration and approval of proposals submitted by prospective concessionaires, based on criteria listed in the operating regulations for concessions. These regulations will also make provisions for the revolving funds established to support microenterprises in the area. Members of the local community will be given priority in the awarding of these concessions, and will be required to make counterpart contributions.
- 3.13 The revolving funds will be managed by the INGUAT initially, and will be transferred to ecotourism committees or associations of microentrepreneurs at the end of the program execution period (see Operating Regulations in Annex III-1). 4/

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3/ During execution of the program, a study will be conducted into the feasibility of creating a joint public/private sector foundation to administer a trust fund for collection and allocation of resources needed to maintain the sites. This study could be included in the second stage of the program.

4/ Concerning experience with this type of financing, see Chapter I.D.5.

### 3. Component III

- 3.14 The component will include pilot projects and applied research in agroforestry, sustainable farming, and community-based forest management systems.
- 3.15 The means for executing the program have been organized around experience gained from other projects carried out in Petén – in particular those financed by the USAID and Germany's GTZ – and from consultations with the communities in the region. These experiences have underscored the need to carry out promotional and outreach programs in project areas through the media by mounting workshops for local organizations and farm leaders' associations, especially in the first year of the program.
- 3.16 Technical assistance services, with provision of inputs for participating farmers, will be grouped into lots by area of intervention and subcontracted by the CEU. The latter will be responsible for selection, letting of contracts and supervision of two to four technical assistance agencies (OATs), depending on the number of geographical areas covered. The technical and financial reports prepared by the OATs will be reviewed by the CEU before being submitted to SEGEPLAN and the Bank, along with a summary outlining the progress achieved and performance under the component.
- 3.17 The component will involve working with campesino organizations (community development committees, artisan groups, cooperatives, associations of collectors of nonwood products and other associations of farmers interested in participating in the program. These farmers will either sign individual contracts or be covered by collective agreements signed between their own community-based organization and the respective OAT. These OATs will operate extension services to help participants carry out program activities, and each area will also have a pair of rural outreach workers recruited from the local community. The monitoring of crop yields and farm earnings will serve to demonstrate the advantages of sustainable production techniques to local farmers. Evaluation of the results achieved will provide input for an annual review of the proposed technical alternatives, according to the particular characteristics of each community and family. Interested farmers and organizations will be selected to participate and the component will be carried out in accordance with the guidelines set forth in the operating regulations for the component (see Annex III-1).

#### a. Agroforestry and sustainable agricultural production

- 3.18 Local farms will be selected for carrying out these projects primarily on the basis of community interest and degree of poverty, together with the replicability and likelihood of disseminating results of successful experiences. During the first year of the program, outreach workers will be chosen, demonstration plots will

be set up, and the farms to receive initial technical assistance will be selected.

- 3.19 Production activities in the fields of agroforestry, combined livestock and forestry operations, and sustainable agriculture are to be financed jointly by the program and farmers themselves. The program will cover the cost of technical services and the basic inputs needed for technological change (plants, seeds, tools), while the farmers will supply family labor and meet local needs (see Operating Regulations in Annex III-1).
- 3.20 To provide a part of the working capital needed for expansion of the agroforestry activities introduced during the initial technical changes, five small revolving funds will be created for a combined total of US\$130,000). These funds will be administered by the OATs during the execution period, and then taken over by the community organizations upon completion of the program (see Operating Regulations in Annex III-1).

b. Pilot project in community-based forest management

- 3.21 To ensure the success of forestry activities, the program will provide incentives in the form of technical assistance along with investments in materials, equipment and services needed to carry out management plans. The communities benefitting from the program will contribute labor and local materials. The program will supply the necessary financial support enabling the community to take steps to secure approval of its management plans and obtain the respective forest management concessions. This will include support for creating a specific, duly constituted committee to act as the legal recipient of both the community-based forestry concession and program resources. In the case of the pine groves reserve in Poptún, the program calls for the inclusion of private farms that wish to participate in the program as well, according to the criteria set out in the Operating Regulations.

c. Applied research on forestry, agroforestry and agriculture

- 3.22 Each OAT will be directly responsible for conducting research projects in parallel to the extension services it provides. To this end, the OATs will hire consulting services to provide specific assistance with the identification, design, supervision, data processing and evaluation of research projects. The findings from this research will be used to verify the technologies used, and for monitoring and assessment of the program, and will be handed over to CUDEP to facilitate use of lessons learned. For research on forest management and agroforestry at the Instancia farm administered by CUDEP, an agreement will be reached between the CEU and CUDEP and the CEU will sign a subcontract with a specialized research agency or consulting firm.

#### 4. Component IV

- 3.23 Training courses will be subcontracted by the CEU under the following modules: (i) administration and finance; (ii) planning and projects; (iii) organization and community participation; and (iv) environmental issues. These courses will be given by specialized firms under contracts awarded by tender and administered by the CEU, which will assign two of its staff to oversee this component. Consulting services for the public institutions will be hired under subcontracts with the CEU, which will be responsible for their products. The institutions benefiting from the program will participate in the selection of these consulting firms.
- 3.24 SEGEPLAN will invite bids on a feasibility study for the second stage of the program once execution of the present operation is 65% complete. In this way, lessons learned during this operation can be incorporated into the second phase.

#### C. Disbursing of funds

- 3.25 Disbursements under the program will be requested by SEGEPLAN based on certification by SEGEPLAN VIII within five business days after receipt by SEGEPLAN of the CEU request, and will be deposited by IDB directly into a bank account opened with the Central Bank of Guatemala in the name of the CEU, which will have the necessary autonomy to manage these resources. Amounts required for the consulting services to assist SEGEPLAN and revolving funds for ecotourism projects, small-scale works and training and promotional activities under the INGUAT will be transferred directly to these organizations. Funding for purchases in foreign funds - in particular, for vehicles - can be disbursed directly by the IDB with prior authorization from SEGEPLAN.
- 3.26 The OATs, in their role as co-executing agencies for component III, will be responsible for managing project advances transferred by the CEU into their bank accounts in Petén. The SEGEPLAN VIII office will certify the replenishment of funding upon presentation of accounts and receipts in accordance with the Bank's procedures. Payments to subcontractors will be made by the CEU under the terms and conditions of their contracts.

#### D. Procurement of goods and services

- 3.27 The procurement of goods and services, and the awarding of contracts for construction works, will be handled in accordance with the procedures set forth in Annex B to the loan contract. International competitive bidding will be mandatory for any procurement of goods and services whose value exceeds US\$250,000, and for works valued at over US\$1.5 million. These thresholds are based on the Bank's prior experience in Guatemala and the technical characteristics of the program.

- 3.28 All subcontracting for the purchase of goods and services to be used in component I, archeology projects under component II, or components III and IV of the program will be managed by the CEU. It is proposed that the respective contracts be awarded in accordance with the Bank's procurement procedures inasmuch as these operations will not be subject to the Government Procurement Act, thanks to a specific provision of the latter allowing the establishment of separate requirements under loan contracts with the IDB.
- 3.29 Subcontracting by the CEU will be carried out using the following methods: (i) for amounts below US\$10,000, contracts will be awarded on the basis of the CEU's best judgement to ensure quality, efficiency and transparency; (ii) for amounts greater than US\$10,000 but not exceeding US\$50,000, contracts will be awarded following a comparison of quotes from at least three suppliers; and (iii) for amounts in excess of US\$50,000, contract awards will be based on selective bidding, using transparent criteria and with three or more bids submitted.
- 3.30 As an exception to the provision of the Bank's procedures that requires publication of notice for selection and contracting of consulting services in amounts exceeding US\$200,000 (paragraph 5.01(a)(i)(E) of Annex C to the loan contract: Procedures for Selection and Contracting of Consulting Firms and Individual Experts), it is recommended that the Board of Executive Directors allow the CEU (a private sector entity) to subcontract by private invitation for three or more qualified firms to submit bids. In order for the project to have the desired impact, it is crucial that it be carried out in parallel to other complementary projects, which necessitates more flexible contracting mechanisms. (The EN2 technical files contain details of procurement packages and guidelines for private bidding competitions.)

E. Recognition of expenses and project preparation advance

- 3.31 The Bank may recognize as part of its own contribution, or the local counterpart funding provided for the project, certain expenditures for design, studies and activities carried out prior to approval of the respective resolution by the Board of Executive Directors, but within a 12-month period immediately preceding the date of such approval and up to a maximum of US\$100,000 in the case of its own contribution, and within an 18-month period and up to US\$200,000 in the case of counterpart funding.
- 3.32 Given the proposed scheduling of expenditures and disbursements, and the means of execution to be employed, a minimum project preparation advance of up to US\$2.9 million is recommended, which is equivalent to 15% of the total amount of the loan. At the request of the executing agency, and subject to approval by the Bank's Country Office (CGU), this advance could be increased to US\$4 million (equivalent to 20% of the loan total). In the case of

such advances, the executing agency should transfer resources for use within 120 days following receipt, and account for such use within a period of 180 days.

F. Cost recovery

- 3.33 A portion of the cost of land titling activities under the program will be recovered through a fee-for-service arrangement. Fees are charged for the transfer of ownership of the land from the government to the occupants. The land is assessed according to its quality, averaging around US\$33 per hectare. Upon payment of 10% of the assessed value, the farmer receives provisional title to his land. The rest of the assessed value is to be paid in ten annual installments, with no adjustment for inflation. Upon completion of these payments, a permanent deed is issued. The procedure is the same whether the applicant originally settled the land or purchased it from a third party.
- 3.34 Recovery of costs under the archeology and tourist services component will come through fees paid by operators of tourist infrastructure and service concessions, along with admission charges paid by visitors to archeology sites. The financial projections indicate that for both groups of sites (Yaxhá and Petexbatún), earnings from admission charges and concession fees will be sufficient to cover security and maintenance costs within one year after completion of the works. Moreover, the government will receive substantial additional earnings in the form of tax revenues from tourism and tourist services. The natural resource management component will also generate indirect income through increased tax revenues from the sale of timber and nontimber forest products and agricultural goods. Drawing on previous experience with the use of revolving funds to finance solidarity circles in Guatemala, it has been possible to design policies for maintaining the original level of resources in the funds to be created under this program (see Annex III-1).
- 3.35 Finally, the program will also finance a study for the creation of a trust fund to administer the revenues from concession fees and admission charges paid by visitors to archeological sites as a means of ensuring sufficient resources for their future operation and maintenance.

G. Maintenance and sustainability of the program

- 3.36 The borrower will be required to ensure that all works financed under the program are maintained to the Bank's standards. SEGEPLAN, the municipalities and each of the organizations receiving institutional strengthening will be responsible for maintaining the equipment purchased under the program. The IDAEH and INGUAT will be responsible for proper maintenance of archeological sites and ecotourism infrastructure. Investments made under component III will be maintained by the campesinos assisted under

the program, in accordance with provisions of the contracts governing execution of activities financed by the program.

H. Programming, monitoring and evaluation of the program

- 3.37 The program will be monitored by means of the following mechanisms: (i) supervision by SEGEPLAN and the Regional Consultative Committee (assisted by a senior consultant hired under the program) through technical environmental inspections and budgetary controls using a management information system to facilitate monitoring and rapid decision making during program execution; and (ii) hiring of a consulting firm by SEGEPLAN to prepare baseline data and conduct two evaluations to determine progress on the works and achievement of technical, environmental, institutional and financial goals, and to make recommendations concerning adjustments needed to improve the efficiency of investments by co-executing agencies at the local level.
- 3.38 It is recommended that the executing agency carry out interim project reviews after 30% and 65% of the Bank financing has been disbursed, assessing progress on socioeconomic, environmental and forestry issues using indicators agreed to with the Bank and baseline data collected at the start of the program. Environmental monitoring will also take place on other projects to be undertaken in Petén (see paragraph 5.29). These evaluations will also provide the basic information for a feasibility study concerning the second stage of the program.
- 3.39 Indicators must be chosen to permit analysis of the physical and financial results obtained under land titling, restoration of archeological sites and tourist infrastructure, and proposed sustainable agricultural production and forestry systems (see logical framework in Annex II-1). The following indicators will be used for components I and II: (i) number of title deeds processed by the INTA and entered in the land register, including total acreage and number of individuals and families benefitting under this project; (ii) quantity of archeological restoration works carried out and determination of their costs; (iii) quantity of infrastructure works carried out and tourist services set up under the program, including the increase in numbers of Guatemalan and foreign tourists visiting program sites; (iv) number of individuals employed and microentrepreneurs taking part in tourism-related activities and indicators of increased earnings; and (v) amount of income generated from admission charges and concession fees.
- 3.40 Three types of indicators will be employed in the case of component III: (i) **Socioeconomic indicators:** level of participation by communities in the program (e.g. ratio of total number of families to number of families participating in the program); number of grass-roots organizations, extension workers and bilingual rural promoters for the indigenous population; reduction in the rate of



urban migration; and wage rates paid in the area; (ii) **Forestry indicators:** area under natural forest management plans and degree of compliance with these plans; acreage planted and number of native and exotic species used, including both timber and nontimber species; number of forest fires and area affected, and the rate of natural regeneration of woodlands; and (iii) **Agriculture and agroforestry indicators:** productivity per hectare under the various operations; degree of application of new technologies (use of green manure in particular) and diversification through adoption of new products; and indices of changes in land use, including deforestation rates.

- 3.41 For component IV the indicators will include: (i) number of officers and members of grass-roots organizations receiving training under the program; (ii) evaluation of the environmental awareness campaign subproject in Petén (number and type of participants, events sponsored, quantity of brochures distributed, radio programs, etc.); and (iii) income levels and spending patterns among municipalities receiving institutional strengthening.

#### IV. BORROWER AND EXECUTING AGENCY

##### A. Borrower, executing agency and co-executing entities

- 4.1 The borrower will be the Government of Guatemala. SEGEPLAN will have overall responsibility for the program, acting through its regional office in Petén. In addition, the INGUAT and IDAEH will serve as co-executing agencies for component II.

##### B. Executing and co-executing agencies

###### 1. SEGEPLAN

- 4.2 This secretariat was created by Executive Decree 157 of November 27, 1954, to serve the National Economic Planning Council, the highest policy-making body in the government's planning system. Its objective is to plan and coordinate economic and social development within Guatemala. Its specific duties are to conduct diagnostic studies of the nation's economy, coordinate the preparation of programs and projects, manage international technical cooperation, coordinate sectoral planning for government bodies and assist in activities of the country's economic authorities.
- 4.3 SEGEPLAN has an undersecretariat of planning which handles socioeconomic planning, and an undersecretariat of international cooperation which is responsible for international cooperation programs and projects including the National System for Financing Preinvestment Studies (SINAFIP). The Secretariat has a total of 110 employees including 60 professionals, 34 technical support personnel and the rest operational staff. The level of training of these employees is generally conceded to be sufficient for the task at hand.
- 4.4 SEGEPLAN maintains a regional office in Petén (SEGEPLAN VIII) that acts as secretariat and technical support unit of the COREDUR, the body which coordinates public sector activities in that region.
- 4.5 SEGEPLAN VIII operates two subregional offices which focus primarily on biodiversity, sustainable development and natural resource utilization on lands occupied by grass-roots communities, and land titling projects.
- 4.6 The SEGEPLAN regional office in Petén has 47 employees under contract, 32 of whom are funded by Proselva while most of the rest are considered counterpart personnel under that project. Therefore, it will be necessary to appoint additional personnel to supervise the present program with the assistance of the proposed consultants.

- 4.7 SEGEPLAN's regional office had always operated under a modest budget which in 1995 totalled US\$262,000. However, this figure rose to US\$2.1 million for 1996 with the addition of funding under the Proselva project.

## 2. The IDAEH

- 4.8 Decree 425 issued by the Congress of the Republic designates the IDAEH as the official body responsible for archeological sites. It is currently part of the Ministry of Culture and Sports, reporting to the Cultural and Natural Heritage Directorate. The IDAEH has ample experience in restoring archeological monuments under cooperation agreements with institutions such as the University of Chicago and Vanderbilt University.
- 4.9 Its overall objective is to protect, preserve, restore, develop, promote and administer all archeological, historical, ethnological, artistic and traditional monuments, objects and treasures found in Guatemala.
- 4.10 The duties of the IDAEH include establishing museums and archeological parks, and signing agreements with international organizations for the protection of Guatemala's cultural heritage. Its strategy is to develop "packages" of Mayan archeological sites with cultural-tourism potential, and to promote community involvement in the restoration and management of these sites. To this end, the IDAEH has developed close ties with the INGUAT and the tourism sector in general, as can be seen in the management of the restorations at Tikal.
- 4.11 The central administration of the IDAEH is divided into five units which operate under the Institute's Director General: (i) Register of Archeological, Historic and Artistic Property; (ii) Tikal Technical Commission; (iii) Prehispanic and Colonial Monuments Division; (iv) Workshop for the Restoration of Goods and Artifacts; and (v) Archeological Research Unit. The various museums operate as independent units reporting to the Director General.
- 4.12 Of the IDAEH's total staff of 1,540 employees, 560 (36%) are stationed in Region VIII. The work of the regional office is divided into three areas: (i) the Inspectorate General of Prehispanic Monuments, which covers inspection and supervision of Guatemala's archeological sites; (ii) Tikal National Park; and (iii) the archeological projects and atlas for the Yaxhá-Nakúm-Naranjo triangle. These three areas are deemed separate projects inasmuch as each has its own activities and specific source of funding, the first through a Spanish grant for the restoration and expansion of the park (supplemented by the activities of component II of the proposed program), and the others with German resources.
- 4.13 The IDAEH's budget for the region varies depending on the restoration and research projects under way in the area. Its 1995

total was US\$983,000, representing 33.2% of the overall budget for the Institute.

### 3. The INGUAT

- 4.14 The INGUAT was created in September 1967 under Congressional Decree 1,701 as a decentralized public corporation duly empowered to acquire rights and incur obligations, and with its own capital and source of funding in the form of revenues generated by taxes authorized under this same decree-law and reserved exclusively for its use.
- 4.15 The INGUAT is the only decentralized government agency without a board of directors of its own. The Director of the Institute acts as the highest decision-making authority, reporting directly to the President of Guatemala. For general guidance and coordination with other public and private sector bodies, the Director relies on a Tourism Advisory Council made up of 14 members, seven of whom are from the private sector.
- 4.16 The objectives of the Institute are to: (i) work in close coordination with the IDAEH to promote development of new Mayan archeological sites in Petén for purposes of tourism; (ii) encourage private sector investment in tourist services by both Guatemalan and foreign investors; (iii) help local and regional governments carry out tourist infrastructure projects; and (iv) promote tourism development policies that are consistent with the preservation and enhancement of the environment, in close cooperation with CONAP and CONAMA.
- 4.17 The INGUAT is also the only institution with an approved sectoral development plan of its own, the Sustainable Tourism Development Plan for the Year 2005, which was launched in 1995. The primary objective of this plan is to strengthen the role of tourism as a source of employment, income and foreign exchange for Guatemala.
- 4.18 The plan is based on four strategic factors: (i) the central role of the private sector in the execution of projects; (ii) support activities that include infrastructure development, tax incentives, promotional campaigns, marketing, education and establishment of schools to provide training in tourist services; (iii) emphasis on sustainable development; and (iv) the grouping of tourist activities that complement a regional approach to land management, with priority on tourist programs such as: (a) Living Native Highlands; (b) Adventure in the Mayan World (ecotourism); (c) Nature's Paradise (ecotourism and tourism); and (d) the Pacific Coast.
- 4.19 The INGUAT is a relatively small organization with little red tape. In Petén, it operates a regional office staffed by seven officials headed by a regional representative of the Director General. Its activities are built around ecotourism in the Yaxhá-Nakúm-Naranjo

and Dos Pilas areas, which is in line with the strategy adopted under the present program. Through NGOs and community participation, an effort is also being made to promote the opening of inns and hostels as a means of further developing ecotourism. In short, with its local staff plus the support of its central headquarters, the INGUAT is well placed to undertake its role under the proposed program.

- 4.20 The INGUAT has its own source of funding in the form of a 10% tax on all hospitality charges, tourism cards and departure fees levied in Guatemala, which gives it financial independence.
- 4.21 The institution's operating budget was US\$6.29 million in 1994 and US\$6.85 million in 1995 - and is forecast at the latter figure for 1996, as well. Of these resources, approximately 43% goes for salaries, 47% for operating expenses (which includes conferences and liaison with other bodies), and 10% for projects. Petén region absorbs some 10% of these resources, but there are in addition many promotional activities aimed at Petén which are difficult to account for individually since they are carried out on a national basis. It is clear that the INGUAT's management is giving high priority to Petén for future tourist activities.
- 4.22 A detailed description of other institutions involved in the program - the National Agrarian Reform Institute (INTA), National Council on Protected Areas (CONAP), departments of the Ministry of Food and Agriculture (MAGA) and the Forestry and Wildlife Directorate (DIGEBOS) - is available in the technical files of EN2.

## V. FEASIBILITY AND RISKS

### A. Technical feasibility

- 5.1 The archeological restoration works will be carried out at sites that have already been investigated, under the supervision of national and international experts, and involve the use of methods that have already been applied in Petén. The tourist infrastructure is rustic in nature and there are numerous contractors with the necessary experience to build it. The additional tourist services will be provided by microentrepreneurs (mostly women) who are organized and will have the technical assistance required to ensure adequate provision of these services.
- 5.2 The proposed agricultural and forestry systems are based on production technologies disseminated by major agricultural research centers in Central America. In addition, their adaptability to conditions in Petén has been demonstrated in various pilot projects carried out in the region with foreign financing.
- 5.3 The proposed production methods will be backed by land titling programs already being carried out under the Proselva project, which will ease the way for adoption of these new sustainable development technologies.

### B. Environmental feasibility

- 5.4 A study was carried out to assess the environmental impact of the program, and the corresponding environmental summary was drawn up. The CMA, at its meeting of October 1, 1996, approved this environmental summary and confirmed the classification of the program as a category III operation.
- 5.5 The most important positive environmental effects of the program include: (i) improved land use; (ii) reduced deforestation rates; (iii) slowing of erosion, soil loss and the silting-up of waterways; (iv) expansion of tree cover with increased biomass resulting in greater capture of carbon dioxide from the atmosphere and the recharging of aquifers; (v) greater awareness of the environment and training in the management of natural resources; and (vi) increased economic opportunities in environmentally-friendly employment in the restoration of archeological sites, private enterprise in ecotourism and sustainable forestry, as well as agricultural production. Activities aimed at prevention and mitigation of possible adverse environmental effects have been incorporated in the design of the program.

C. Socioeconomic and financial feasibility

- 5.6 The sustainable use of natural resources and preservation of Mayan cultural heritage in the Petén region will generate income and jobs for those living there, as well as a diverse range of benefits for the Guatemalan people and the world overall. It is difficult to quantify these potential external benefits necessary for determining economic viability given the scope and complexity of the anticipated positive effects.
- 5.7 Emphasis has been placed on analyzing the financial feasibility of the proposed activities to ensure that they remain attractive to participating farmers and microentrepreneurs. Only in this way will they be financially self-sustaining, becoming a model for replication as an indirect result and in future stages of the program.
- 5.8 To illustrate the magnitude of the program's global ecological benefits, a value has been assigned to the benefits deriving from the capture of carbon dioxide. The same process is extended to the valuation of other externalities attributable to the protection of forested areas, ranging from the genetic potential for future scientific discoveries to the non-utilitarian satisfaction that derives from the mere existence of forests.
- 5.9 Given the multiplicity of objectives under this program, optimizing the use of the region's natural resources will require a process of successive approximations. As information on alternative solutions accumulates and relative priorities among the different objectives are sorted out, it is hoped that decision-making concerning the allocation of available natural resources will gradually become more rational and efficient.

1. Component II: Protection of cultural heritage and tourist services

- 5.10 Emphasis was placed on examining the financial feasibility of operations at the Yaxhá and Petexbatún sites. The results of the exercise indicate that these sites will attain financial self-sufficiency beginning in year five of the project, i.e. in the first year of operation after completion of the execution period.
- 5.11 Financial projections show net profits from the operation of these sites beginning at US\$8,000 in year 5, rising to US\$94,000 in year 10, and reaching US\$327,000 in year 20 thanks to a continuing influx of foreign and Guatemalan tourists (see socioeconomic evaluation in EN2 technical files). Among the costs taken into account in these projections were those incurred in the restoration of archeological sites and the building and maintenance of tourist infrastructure. The cost of international promotion of these new tourist attractions was not included in the calculations. The income attributed to the sites is based on payment of fees for

operating the infrastructure concessions and admission charges collected from visiting tourists.

2. Component III: Sustainable management of natural resources

- 5.12 The pilot projects to be carried out under this component are designed to promote two sustainable and mutually-reinforcing production activities: (i) crop-growing on farmers' plots; and (ii) exploitation of timber and nontimber resources in common woodlands adjoining family plots.
- 5.13 The results obtained demonstrate the financial viability of the activities that make up this component. Each of the proposed interventions will lead to an enormous increase in earnings per hectare of land under cultivation. Providing certain inputs free as an incentive will raise annual incomes by an average US\$2.85/hectare under the forest management subcomponent, and US\$7.65/hectare for farmers participating in the agricultural production subcomponent. The program will cover the cost of the technical assistance required to convince farmers to make the change to the proposed production systems, which in turn will represent a rise in their annual incomes of around US\$37.50/ha under the forestry subcomponent, and US\$61.67/ha under the agricultural subcomponent.

**Table 5.1**  
**FINANCIAL INDICATORS FOR COMPONENT III**

FORESTRY MANAGEMENT	Average profit per year (in 1996 dollars per hectare)		
	Without Project	With Project	Difference
San Román	1.75	13.22	11.47
Poptún	50.01	196.40	146.39
Montañas Mayas	--	4.41	4.41
SUSTAINABLE AGRICULTURE			
San Román	75.17	140.50	65.33
Poptún	45.50	164.00	118.50
Montañas Mayas	--	225.67	225.67
La Pasión-Usumacinta	88.33	145.67	57.34

Source: Socioeconomic evaluation in EN2 files.

- 5.14 There is also a large difference in profits per hectare when farmers move from forestry practices to crop raising, with the exception of the pine groves of Poptún. This difference confirms the need to provide incentives that will secure the attachment of



farmers to their lands and ensure that they are fully engaged in growing agricultural crops, using forestry as a supplementary source of income during those seasons when farm work is at a minimum. Only in this way will it be possible to wean them away from the tradition of slash-and-burn cultivation with resultant degradation of forested areas.

- 5.15 As to socioeconomic returns, it is estimated that the forest biomass preserved under the natural resource management component will absorb approximately 22,000 tons per year of carbon equivalent. The results of studies from various countries on willingness to pay for the prevention of damage caused by atmospheric carbon suggest that the world attaches a value of between US\$7 and US\$18 (1989 dollars) per ton of carbon absorbed. 5/ Adjusting for 23% inflation between 1989 and 1995 according to the United States CPI, the program would produce an annual external benefit of between US\$154,000 and US\$396,000 in 1995 dollars.
- 5.16 Other externalities that accrue from the protection of wooded areas range from the genetic potential for future scientific discoveries to the non-utilitarian satisfaction that derives from the mere existence of forests. Again, various studies suggest that the value placed on this factor is equivalent to 75% of the amount attributable to absorption of atmospheric carbon. This would bring the total external benefit from protection of forests to between US\$270,000 and US\$700,000 per year. Moreover, these benefits are to a large extent external to Guatemala. The absorption of carbon in particular is a benefit associated primarily with the countries responsible for emission of carbon dioxide into the earth's atmosphere.
- 5.17 According to the findings of the economic profitability analysis carried out, the forest management and agricultural development activities under this component will produce an economic return of 14.8%, assuming external benefits of US\$500,000 per year starting in the fifth year of the project. Excluding the external benefits attributable to absorption of carbon, the genetic potential for future scientific discoveries and other positive effects on the environment, 6/ the internal rate of return is only 10.1%. This underscores the rationale for seeking international concessionary resources for at least partial funding of the activities under this component.

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5/ Brown K., and D. Pearce, 1994: The economic value of carbon storage in tropical forests, in "The economics of project appraisal and the environment"; J. Weiss (ed.), Cheltenham.

6/ For a detailed description of these benefits, see the document entitled "Financing Forest Investments in Latin America: The Issue of Incentives", by Olli Haltia and Kari Keipi. SDS/ENV/IDB.

D. Benefits and distributional impact

- 5.18 The program activities are targeted to low-income population groups in the Petén region. These include both Indian and mixed-race farmers who have come to the region in recent years owing to the lack of job opportunities in their place of origin. In a country where 62% of the population lives below the poverty line as defined by the Bank, it follows that virtually all of the beneficiaries of the program will be living in extreme poverty, having migrated into this region from some of the most depressed rural areas of the country.
- 5.19 The program will seek to have a significant positive impact on women by encouraging them to take part in the provision of tourist services and promoting their participation in farming, especially in the raising of small animals, growing of family gardens, cultivation of fruit trees and gathering of nontimber forest products.

E. Institutional viability

- 5.20 Under the proposed plan, specialized private sector entities will be hired to carry out and administer the program, while institutions with a proven track record in coordinating projects in Petén will oversee operations. Moreover, the public agencies responsible for regulation and supervision of activities relating to the program will be strengthened through the efforts of expert consultants. Finally, the communities involved will participate in decision-making, particularly in components II and III, and will be given intensive training on the environment.
- 5.21 The execution plan has been made as simple as possible and the CEU has the necessary authority to sign contracts and manage its own funds, which will further expedite the execution of the different components. Drawing upon previous experience, organizers will incorporate local methods in working with farmers and make use of grass-roots organizations and communities to promote the program. In addition, consultants will be hired to assist SEGEPLAN in ensuring adequate general monitoring of operations, as well as specific consulting firms assigned to conduct evaluation and monitoring of the program.

F. Community participation

- 5.22 During preparations for the program, consultation meetings were held in the communities selected as possible beneficiaries under components II and III. In the majority of these meetings, participants insisted on the importance of legalizing land tenure as a prerequisite for any effort at agroforestry development. Another concern expressed by the communities selected for the archeological sites management component was that they be allowed to take part in the restoration works. Many communities indicated

that their first priority was to obtain basic infrastructure – such as access roads, water supply systems and schools – for which other sources of funding are available (FIS, KfW, USAID and others).

- 5.23 Some of the communities selected for components II and III have not yet achieved the level of organization required to administer the activities proposed under the program. Accordingly, it will be essential to mount a public awareness campaign and, in the case of indigenous communities, to hire experts who speak the native languages to work with the respective communities.
- 5.24 Given their differing levels of interest and community organization, the final selection will be determined by the results of the public awareness campaign and application of the selection criteria listed in the Operating Regulations (see Annex III-1).

G. Women's participation

- 5.25 The primary means of organized participation by women in the development of Petén will be through women's committees in each community, sponsored by the Regional Women's Committee (CRMP). The central strategy of the CRMP, which was established in 1991, is to promote participation by women in activities with the potential to generate additional household funds, through community training programs.
- 5.26 The present operation will attempt to fully incorporate women by means of the following: (i) participation by the Regional Women's Committee of Petén in the process of selecting beneficiaries of the revolving funds set up under component II to finance investments in tourist services; (ii) inclusion of agroforestry management activities in the technology packages under component III that can be carried out by women in accordance with their cultural traditions, including raising of small animals, cultivation of family gardens and harvesting of fruits and other nontimber forestry products; and (iii) participation by women acting as heads of household or co-signers for contracts under the program.

H. Risks under the program and means of mitigation

1. Institutional weakness

- 5.27 Because government agencies in Petén have only recently been decentralized, they are as yet weak in the execution and coordination of investment projects. To minimize this risk, component IV of the program will include institutional strengthening for these agencies. As well, the program will be executed by the private sector under the supervision of the competent public institutions in Petén.

## 2. Land tenure

- 5.28 Uncertainty in land tenure was identified as a serious problem in consultations with the communities, and could stand in the way of farmer participation in the activities of component III. To minimize this risk, the program will take place in areas where titling activities are already being financed under the Proselva project, and preparation of a land register and titling activities in the Mayan Biosphere Reserve buffer zone will be included in component I of the program. Meanwhile, one of the current government's top priorities is to consolidate the peace process by formalizing land tenure throughout the country, as demonstrated by the inclusion of a titling project in the World Bank's operations program for Guatemala. As a result of this policy, the medium- to long-term prospects are for a decline in the rate of migration into Petén.

## 3. Impact of highway infrastructure projects and settlement in Petén

- 5.29 There are projects being studied or already in progress in Petén that could adversely affect the environment in areas where the present program will be carried out. The most important of these relate to the building or upgrading of roadways that could encourage migration into protected areas, as well as projects aimed at resettling refugees and repatriated persons. Contracts under the program will specify a general condition whereby such projects must be consistent with the PDI strategy and must be accompanied by adequate EIAs approved by CONAMA and a proper institutional mechanism for mitigation of possible adverse environmental effects. Fulfillment of this condition will be evaluated before undertaking feasibility studies for the second stage of the program.

## 4. Participation by the local population

- 5.30 Insufficient interest by farmers in introducing sustainable practices in natural resource utilization could make it difficult to achieve program objectives. This risk has been minimized by holding community consultations and locating the program activities in areas where similar efforts have already taken place with financing from the German government and USAID. In addition, plans call for participation by community organizations during the execution stage, together with two interim evaluations of the program, to ensure that the local population has a major say in the decisions that affect them. At the same time, special care has been taken during program preparation to make certain that the technical proposals will produce suitable yields, thereby ensuring that these are financially attractive to farmers.

PERFORMANCE INDICATORS AND GOALS TO BE EVALUATED DURING PROGRAM EXECUTION					
OBJECTIVES	INDICATORS	CUMULATIVE GOALS			
		Year 1	Year 2	Year 3	Year 4
<b>AIM:</b> To reduce the degradation of natural and cultural resources due to deforestation caused by low-income population groups and unauthorized commercial extraction, through introduction of sustainable economic development.	- Reduction in the rate of deforestation.		5%	10%	15%
<b>PURPOSE:</b> To contribute to the protection of natural and archeological resources by conducting pilot projects in sustainable development among low-income groups in degraded areas and support for modernizing management of natural and cultural resources.	- Area included under sustainable agricultural production and agroforestry systems (ha).	1,150	4,280	6,920	10,080
	- Area of secondary natural forest under adequate management (ha).				10,510
	- Area of pine forest under adequate management (ha).		220	440	840
	- Increase in tourism in Yaxhá.		16%	32%	48%
	- Increase in tourism in Petexbatún.		12%	24%	36%
	- Rise in income in project areas.		10%	20%	30%
	- Increase in tax revenues for municipalities.			20%	40%
	- Decrease in delay on approval of forestry concessions.			20%	40%
	- Increase in efficiency in the number of title deeds issued by INTA.			30%	60%

PERFORMANCE INDICATORS AND GOALS TO BE EVALUATED DURING PROGRAM EXECUTION					
CUMULATIVE GOALS				INDICATORS	OBJECTIVES
Year 4	Year 3	Year 2	Year 1		
1,500	1,500	1,000	500	- Number of titles recorded in the land register.	<b>COMPONENT 1.</b> Legalization of land tenure in the RBM buffer zone
35%	30%	25%	10%	- Yaxhá restoration works.	<b>COMPONENT 2.</b> Protection of cultural heritage and tourism services
30%	40%	30%		- Tzikin Tzakan restoration works.	
35%	30%	25%	10%	- Dos Pilas, El Duen de and Aguateca restoration works.	
50%	50%			- Arroyo de Piedra restoration works.	
		50%	50%	- Final designs and EIA for tourist infrastructure.	
50%	50%			- Tourist infrastructure works.	
5	5			- Communities trained to form tourist enterprises.	
	50			- Number of security guards for archeological sites that receive training.	
100%				- Tourism advertising outside Guatemala.	
5	5			- Ecotourism committees organized.	
US\$35,000	US\$15,000			- Loans approved for revolving funds.	

PERFORMANCE INDICATORS AND GOALS TO BE EVALUATED DURING PROGRAM EXECUTION					
OBJECTIVES	INDICATORS	CUMULATIVE GOALS			
		Year 1	Year 2	Year 3	Year 4
COMPONENT 3. Sustainable agriculture and management of natural resources	- Number of communities covered by awareness campaign	15			
	- Number of families included	144	260	356	
	- Number of women organized	101	283	283	
	- Number of revolving funds established		5		
	- Number of loans granted by revolving funds			120	120
	- Area included in agroforestry system	1,150	3,130	2,640	3,160
	- Kilometers of living barriers		60	120	120
	- Number of community forestry management units	4			
	- Number of management plans and concessions approved		4		
	- Area under forest management (ha)			10,410	
	- Area of private pine forest with adequate management (ha)		220	220	400
	- Test plots for planting of nontimber species			100	
	- Number of experiments on producers' farms		6	6	6
	- Market studies for nonregional agricultural products to be included in future technological packages		2	2	2

PERFORMANCE INDICATORS AND GOALS TO BE EVALUATED DURING PROGRAM EXECUTION					
OBJECTIVES		INDICATORS			
COMPONENT 4. Institutional strengthening			Year 1	Year 2	Year 3
			Year 4	CUMULATIVE GOALS	
			- Number of persons receiving training from CONAP, DIGEBOS, SEGEPLAN, INTA, INGUAT and municipalities	100	100
			- Number of municipalities with modern finance and administration systems installed and in operation	2	2
			- Purchase of equipment and vehicles for CONAP, DIGEBOS, INTA and municipalities	50%	50%
			- Study for protection of Yaxhá-Nakun-Naranjo triangle	50%	
			- Study for creation of trust	30%	40%
		- Feasibility study for second stage of program			75%
					25%



# **COMPREHENSIVE DEVELOPMENT PLAN (PDI) AND SOURCES OF PROJECT FUNDING**

ISSUES IDENTIFIED IN PDI	PROJECTS PROPOSED BY PDI	PROJECTS IN EXECUTION	IDB PROJECT
of INTA to arrange rapid on of land ownership. Processing es 3-4 months, and registration be done in the capital.	- Program for reorganization and strengthening of the public sector in Petén.	1. PROSELVA in southern Petén provides training, equipment and simplification of operating procedures. Currently it is completing 100 title deeds per month, with a goal of 3,000 per year.  2. Tayasal project.	Land titling in the RBM buffer zone supplementary support for the mo of INTA to ensure use of the same utilized in southern Petén. Suppo establishment of 3rd land register Petén. (Components I and IV)
of DIGEBOS to act efficiently in prevent felling and burning of	- Program for reorganization and strengthen- ing of the public sector in Petén.		Support for modernization of DIGE primarily in its processing of fores concessions. (Component IV)
of CONAP to ensure effective itation of the SIAP.	- Program for reorganization and strengthening of the public sector in Petén.	1. PROSELVA in southern Petén provides training for personnel in joint administration and management of protected areas with the communities.  2. USAID project through NGOs and in support of CONAP, works to improve environmental policy in the management of the Mayan Biosphere Reserve.	Additional institutional strengtheni CONAP through training and equi primarily for modernization of pro the granting of forestry concession protected areas and management buffer zones with community parti (Component IV)
al and financial weakness of ities and inability to meet the communities.	- Program for reorganization and strengthen- ing of the public sector in Petén.		Advice to municipalities on admini financial aspects, and preparation to be financed through various exi in Guatemala with FONAPAZ, FIS (Component IV)
hos' lack of resources for ation of their productive activities.	- Creation of a farm credit fund for production activities.		Establishment of community-based funds to finance agroforestry, fores management and low-impact touri activities. (Components II and III)
of investment in agricultural ation due to uncertainty of land	- Establishment of a cadastre in the department of Petén and accelerate land titling operations.	1. PROSELVA in southern Petén: cadastre and titling program.	Cadastre and titling in the RBM bu (Component I)
of timber and nontimber s, institutional weakness in control, and lack of coordination DIGEBOS and CONAP.	- Institutional strengthening and drafting of technical-administrative standards for the forestry sector. - Tropical forest research center. - Promoting commercial tree plantations.	1. CATIE and CARE (financed by USAID) have prepared standards for community-run concessions and field management of forests in the RBM area.	Community-based forest managem ties in southern Petén using stand sustainability, applied managemen in communities and an experiment operated by CUDEP university. (C nent III), institutional strengthening and DIGEBOS (Component IV).

COMPREHENSIVE DEVELOPMENT PLAN (PDI) AND SOURCES OF PROJECT FUNDING			
PROBLEMS IDENTIFIED IN PDI	PROJECTS PROPOSED BY PDI	PROJECTS IN EXECUTION	IDB PROJECT
lack of knowledge among campesinos of modern source management methods and the importance of extension services.	<ul style="list-style-type: none"> <li>- Strengthening of the Regional Agricultural Extension System.</li> </ul>		Carrying out extension organization and community training activities with the aim of establishing agroforestry and sustainable agriculture technology packages in southern Petén. (Component III)
Slash-and-burn cultivation with little productivity and low productivity.	<ul style="list-style-type: none"> <li>- Diversification in agro-forestry and sustainable agriculture.</li> <li>- Intensification of agricultural production.</li> </ul>	<ol style="list-style-type: none"> <li>1. PROSELVA, through technical assistance under pilot projects in southern Petén that complement activities considered under the present project.</li> <li>2. USAID in some multiple-use areas in the RBM.</li> </ol>	Introduction of diversified agroforestry technology packages in southern Petén. (Component III)
Low level of animal production with low productivity.	<ul style="list-style-type: none"> <li>- Farm-type cattle-raising systems.</li> <li>- Promotion of small animal raising.</li> </ul>		Introduction of forest grazing technology packages by means of a promotional campaign in communities in southern Petén. (Component III)
Lack of research and experimentation in agriculture and agroforestry.	<ul style="list-style-type: none"> <li>- Research in agriculture and agroforestry.</li> </ul>		Carrying out applied research based on the implementation of technology packages on private land. (Component III)
Lack of diversification in agriculture.	<ul style="list-style-type: none"> <li>- Promotion of beekeeping.</li> <li>- Experimental raising of wildlife species.</li> </ul>	<ol style="list-style-type: none"> <li>1. European Union project at the profile level to be considered when the peace agreements are finalized.</li> </ol>	The technology packages include systems with family gardens and coffee fruit trees. (Component III)
Need to develop alternatives for sustainable economic activities (primarily tourism or cultural tourism) through the restoration of archeological sites by the state and the promotion of tourism.	<ul style="list-style-type: none"> <li>- Petén tourism development fund.</li> <li>- Tourism development in the Tikal-Uaxactún-EI Zotz area.</li> <li>- Tourism development in the Yaxhá-Nakún-Naranjo area.</li> <li>- Tourism development in the El Ceibal-Petexbatún area.</li> <li>- Works begun for tourism development in Petén Itzá Lake district.</li> </ul>	<p><b>KfW:</b> Restoration of archeological sites in the Yaxhá-Nakún-Naranjo region.</p> <p><b>Vanderbilt University (US):</b> Support for archeological excavations at Petexbatún.</p>	Establishment of community revolving funds for development of tourism services and handicrafts. (Component II) Restoration of monuments, support for decentralization of the IDAEH, and the INGUAT in promoting international tourism. (Components II and IV) Restoration of monuments, support for decentralization of the IDAEH, and the INGUAT in promoting international tourism. (Components II and IV)

# **COMPREHENSIVE DEVELOPMENT PLAN (PDI) AND SOURCES OF PROJECT FUNDING**

LEMS IDENTIFIED IN PDI	PROJECTS PROPOSED BY PDI	PROJECTS IN EXECUTION	IDB PROJECT
<p>te infrastructure as a constraint mic diversification, tourism ent and adequate social</p>	<ul style="list-style-type: none"> <li>- Resurfacing and renovation of the Melchor de Mencos-Sayaxché highway.</li> <li>- Resurfacing and renovation of the Modesto Méndez-Flores highway.</li> <li>- Highway maintenance.</li> <li>- Expansion of postal, telegraph and telephone services.</li> <li>- Prefeasibility studies of hydroelectric generating potential.</li> <li>- Feasibility study for the Camalote Hydroelectric Plant.</li> <li>- Urban planning for the central Flores/Santa Elena/San Benito area.</li> </ul>	<p>Taiwan: Proposal for paving of the Melchor de Mencos-Flores stretch (dependent on peace agreements).</p> <p>CABEI: Modesto Méndez-Flores highway; Modesto Méndez-San Luis stretch in progress and San Luis-Flores at proposal stage.</p> <p>The Army, Basia oil company and communities: paving begun on La Libertad-Naranjo, La Libertad-Alta Verapaz and Sayaxché-Ciudad Echeverría highways.</p> <p>INDE, under a concession agreement with the company SORENSEN.</p> <p>KfW project under way, and proposal for broader program in preparation.</p>	
<p>te sanitation and social services.</p>	<ul style="list-style-type: none"> <li>- Environmental sanitation in central Flores/Santa Elena/San Benito, and at Lake Petén Itzá.</li> <li>- Sanitation and water services for subcenters and small towns.</li> <li>- Water supply in the central area of Petén.</li> <li>- Strengthening of basic health services.</li> <li>- Strengthening of education sector.</li> <li>- Kekchi bilingual and inter-cultural education program on radio.</li> <li>- Strengthening of Petén university center (CUDEP).</li> <li>- Research on traditional medicine.</li> </ul>	<p>GTZ, KfW (under negotiation) and Government of Spain for rural sectors.</p> <p>Japan (at the proposal stage).</p> <p>KfW.</p> <p>FONAPAZ, FIS, Special AID Fund for specific small works projects (see additional notes below).</p>	

COMPREHENSIVE DEVELOPMENT PLAN (PDI) AND SOURCES OF PROJECT FUNDING			
PROBLEMS IDENTIFIED IN PDI	PROJECTS PROPOSED BY PDI	PROJECTS IN EXECUTION	IDB PROJECT
16. Industry and microenterprise sector underdeveloped.	<ul style="list-style-type: none"> <li>- Job training.</li> <li>- Promotion of small industry and handicrafts.</li> </ul>		Training for the communities in aspects of tourist services and promotion of handicrafts, by means of a revolving fund established for this purpose. (Component II)
Additional notes:			
<p>1. The Social Investment Fund (FIS) recently commissioned a representative to boost investment in Petén. To date, a total of 239 small projects have been submitted for 51 communities in the Sayaxché and La Libertad areas.</p> <p>2. The USAID Special Fund is made up of resources remaining from other AID projects, and is used to pay for materials to be used in one-off infrastructure projects costing up to US\$10,000. Project proposals are submitted through community improvement committees. Between 1992 and 1995, 132 projects were approved and executed in support of the communities. SEGEPLAN, CARE and CONAP are carrying out project promotion and monitoring.</p>			

# LOGICAL FRAMEWORK

OBJECTIVES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
<p>taken on natural and cultural e process of deforestation and mercial exploitation of wooded he introduction of sustainable opment.</p>	<p>Reduction in rate of deforestation by 5% per year.</p>	<p>Figures on deforestation published by CONAP.</p>	<p>The government continues to g to promoting sustainable develo Petén, in accordance with the P peace process continues.</p>
<p>sustainable natural resource and preservation of cultural n economically sustainable pilot d to low-income population</p>	<p>10,080 ha (a total of 760 farms in 15 communities) included under sustainable agricultural production and agroforestry systems.</p> <p>11,350 ha of secondary natural forest brought under sustainable management by 10 communities in year 4 of the program.</p> <p>Increase in ecotourism and cultural tourism by 16% per year in Yaxhá and 12% per year in Petexbatún by year 2.</p> <p>Increase in income by 10% per year in project areas starting in year 2 of the program.</p> <p>Increase in tax revenues in municipalities by 20% per year beginning in year 3 of the program.</p> <p>DIGEBOS and CONAP to achieve a 20% per year reduction in the time taken to study and approve forest concessions beginning in the third year of the program.</p> <p>INTA to increase its efficiency in issuing title deeds by 30% per year beginning in the third year of the program.</p>	<p>OAT/CEU Report</p> <p>OAT/CEU Report</p> <p>INGUAT</p> <p>SEGEPLAN</p> <p>Budget report from municipalities</p> <p>DIGEBOS/CONAP/CEU Report</p> <p>INTA/CEU Report</p>	<p>Formalization of land tenure rem track thereby reinforcing the inte communities in the program.</p> <p>Suitable agricultural and forestry policies are maintained.</p> <p>The upward trend in ecotourism Guatemala is maintained.</p>

LOGICAL FRAMEWORK			
OBJECTIVES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
S/SUBCOMPONENTS			
tion of land tenure in the osphere Reserve buffer zone	4,500 title deeds recorded in the land register in year 4 of the program.	Consultant/CEU Report	The government continues to g to resolving the land tenure pro Petén.
ion of cultural heritage and ervices n of archeological sites	<p>Restoration works on the twin temples and main roadway at Yaxhá to begin in year 1 and be completed in year 4 of the program.</p> <p>Restoration works on the Tzikín Tzakán edifice to begin in year 2 and be completed in year 4 of the program.</p> <p>Restoration works on the Dos Pilas structures, the El Duende pyramid and Aguateca structures to begin in year 1 and be completed in year 4 of the program.</p> <p>Restoration works on the buildings at Arroyo de Piedra to begin in year 3 and be completed in year 4 of the program.</p>	<p>IDAEH/CEU Report</p> <p>IDAEH/CEU Report</p> <p>IDAEH/CEU Report</p> <p>IDAEH/CEU Report</p>	<p>Adequate interinstitutional coord between the IDAEH and the INC</p> <p>The National Archeology Council efficiently in approving the final restoration works.</p>
e tourist infrastructure	<p>Final designs and environmental impact study completed in year 2 of the program.</p> <p>Construction of tourist services infrastructure to begin in year 3 and be completed in year 4 of the program.</p> <p>5 communities per year to receive training in the formation of tourism microenterprises, beginning in year 3 of the program.</p> <p>50 security guards for archeological sites to receive training in year 3, so that they can be hired beginning in year 4 of the program.</p> <p>Tourism promotion abroad to be hired and carried out in year 4 of the program.</p> <p>5 ecotourism committees to be organized per year, beginning in year 3 of the program.</p> <p>Loans approved under the revolving funds for a total of US\$15,000 in year 3, and US\$35,000 in year 4 of the program.</p>	<p>INGUAT Report</p> <p>INGUAT Report</p> <p>INGUAT Report</p> <p>IDAEH Report</p> <p>INGUAT Report</p> <p>INGUAT Report</p> <p>INGUAT Report</p>	The government continues to g to promoting ecotourism activiti

LOGICAL FRAMEWORK			
OBJECTIVES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
<p>ent of natural resources</p> <p>ry, systems for sustainable</p> <p>l production</p>	<p>15 communities covered by intensive promotional campaign in year 1 of the program.</p> <p>144 families of small producers incorporated into the program in the first year, 260 in the second year, and 356 in the third year.</p> <p>101 women organized in year 1 of the program, 283 in year 2, and 283 in year 3.</p> <p>5 revolving funds established in year 2 of the program.</p> <p>120 revolving fund loans granted per year beginning in year 3 of the program.</p> <p>Smallholders with a total of 430 ha of land with potential for sustainable agriculture brought into the program in year 1, 780 ha in year 2 and 780 ha in year 3. Similar figures for agroforestry are 720 ha in year 1, 1,300 ha in year 2, and 1,300 ha in year 4.</p> <p>Farms with forestry reserves managed by small farmers will total 1,050 ha in year 2, 1,860 ha in year 3, and 1,860 ha in year 4.</p> <p>60 km of living barriers to be planted in year 1, 120 km in year 2, and 120 km in year 3 of the program.</p>	<p>OAT/CEU Report</p> <p>OAT/CEU Report</p> <p>OAT/CEU Report</p> <p>OAT/CEU Report</p> <p>OAT/CEU Report</p> <p>OAT/CEU Report</p> <p>OAT/CEU Report</p>	<p>Level of interest of communities program remains high.</p> <p>Cultural barriers preventing working in agriculture are overcome as a result of community organizing and adjustment of technology to gender division of work.</p>
<p>ct in community-based forest</p> <p>ent</p>	<p>4 community-based forest management units identified and delimited with their respective inventories by the end of year 1.</p> <p>4 community-based forest management plans and three community concessions approved by the end of the second year; 8,160 ha of community forests and 2,250 ha in forest reserves protected beginning in year 3.</p> <p>220 ha of plantations operating in years 2 and 3, and 400 ha in year 4.</p> <p>100-ha pilot project planted with nontimber species by the end of year 3.</p>	<p>OAT/CEU Report</p> <p>OAT/CEU Report</p> <p>OAT/CEU Report</p> <p>OAT/CEU Report</p>	<p>CONAP/DIGEBOS approve forest concession before the end of year 1.</p> <p>INTA approves land titling in pilot communities in year 1 of the program.</p> <p>OAT/CEU Report</p>

LOGICAL FRAMEWORK			
OBJECTIVES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
agroforestry and sustainable research.	Beginning in year 2, 6 six experiments per year carried out on farms of qualified producers, including publicizing of results.  Beginning in year 2, 2 market studies per year for non-traditional products that could be included in future technology packages.	OAT/CEU Report  OAT/CEU Report	
<b>al strengthening</b> ntal instruction and training for DIGEBOS, SEGEPLAN, INTA, nd municipalities.	100 individuals trained per year.	Consultant/CEU Report	The government continues to g to modernization and decentrali public sector.
services, equipment and provided to CONAP, DIGEBOS, municipalities.	2 municipalities with modern administrative and financial systems installed per year during the first three years of the program.  Studies carried out for protection of the Yaxhá-Nakún- Naranjo triangle by the end of year 3.  Study for creation of a trust fund and foundation to maintain archeological sites completed by the end of year 4.  Feasibility study for the second stage of the program completed by the middle of year 4.	Budget report from the municipalities/Consultant/CEU Report  Consultant/CEU Report  Consultant/CEU Report  Consultant/CEU Report	



## GENERAL OPERATING REGULATIONS FOR THE PROGRAM

### DRAFT

#### I. INTRODUCTION AND PROGRAM OBJECTIVES

- 1.1 The purpose of these regulations is to determine the responsibilities of the various participants in the plan of execution, and to define the relationship between SEGEPLAN, the executing unit and the coexecuting agencies. This document will establish the terms, conditions and procedures that will govern execution of the Sustainable Development Program for Petén, as well as the administration of agreements between the executing agencies and participating communities.
- 1.2 The Sustainable Development Program for Petén has been designed to be consistent with the strategy of the Petén Comprehensive Development Plan (PDI), and is intended to promote sustainable management of natural resources and preserve the cultural heritage of the department as a means of boosting incomes and improving living standards in the region.
- 1.3 To achieve the above objectives, the program will include four components:
  - (a) Formalization of land tenure in the Mayan Biosphere Reserve buffer zone;
  - (b) Cultural heritage preservation and tourism services;
  - (c) Natural resource management; and
  - (d) Institutional strengthening.
- 1.4 The four components have a total estimated cost of US\$21.7 million, not including contingencies, provision for inflation and financial expenses. The local counterpart is estimated at US\$4.34 million, which includes co-financing in the amount of US\$1 million from Germany's KfW, labor valued at US\$150,000 to be provided by the communities, and a contribution of US\$3.19 million from the Government of Guatemala.

#### II. PLAN OF EXECUTION

- 2.1 The organizational structure under which the program will be carried out is made up of a Regional Consultative Committee, an Advisory Committee, and the Central Executing Unit (CEU).

1. Agencies with primary responsibility for the program
- 2.2 **The Regional Consultative Committee (CCR).** The mandate of this council is to provide the necessary liaison between the program and institutions in Petén, and to review the program's plans and strategies. It will be made up of senior representatives from the regional offices of the Deputy Minister of the MAGA, the governor of the department, CONAP, INTA, IDAEH and INGUAT; one representative of the municipalities, one representative of grass-roots organizations; and the SEGEPLAN delegate. Evidence that the CCR has been duly constituted will be presented prior to the first disbursement under the loan.
- 2.3 **Advisory Committee.** This committee will consist of senior representatives of the MIFIN, MAGA, Ministry of Culture, SEGEPLAN, INTA, CONAP and INGUAT. It will be responsible for selecting the NGO or firm that will serve as CEU, and assisting with the handling of matters arising during program execution which cannot be resolved at the regional level which are placed before it by the regional bodies responsible for the program.
- 2.4 **SEGEPLAN.** The program will be carried out under the supervision of the Regional Office of the SEGEPLAN in Petén (SEGEPLAN VIII), which will designate a delegate to provide oversight and monitor progress. This delegate will receive support from a short-term consultant specializing in bidding and contracting, as well as a senior consultant throughout the execution period. The main duties of SEGEPLAN VIII will be to:
  - (a) make disbursement requests to the Bank;
  - (b) coordinate interinstitutional support and participation in program components and projects;
  - (c) supervise and evaluate the substantive and financial execution of the program and suggest to the CEU any corrective measures that it deems necessary;
  - (d) review the progress reports and financial statements that the CEU is required to submit to the IDB; and
  - (e) provide all available support and information required by the CEU and coexecuting agencies for efficient implementation of the program.
- 2.5 **Central Executing Unit (CEU).** The central body responsible for program execution will be selected by international tender, and will be made up of a financial administration department in charge of contracts, bidding competitions, accounting and disbursements; and a technical department to oversee the work under program

components. The CEU will hire the services of other entities and organizations to execute these components under subcontracts. The mandate of the CEU will be to:

- (a) supervise execution of the program;
- (b) oversee compliance with agreements signed with all subcontractors and coexecuting agencies;
- (c) collect and prepare technical progress and financial reports for submission to SEGEPLAN and the Bank;
- (d) maintain close cooperation with participating institutions, SEGEPLAN and the CCR;
- (e) prepare annual financial reports;
- (f) submit annual work plans for execution of the project with their respective budgets to SEGEPLAN VIII and the CCR; and
- (g) present annual technical reports on activities carried out to SEGEPLAN VIII.

2.6 **Agreement between SEGEPLAN VIII, INGUAT and IDAEH.** To ensure coordination of the works to be carried out under component II, an agreement will be signed between SEGEPLAN, INGUAT and IDAEH establishing the duties of each organization and its relationship to the CEU.

2.7 **Contract between SEGEPLAN VIII and the CEU.** The CEU will be a specialized entity (NGO, private firm, etc.) hired to supervise execution of program components. The Advisory Committee will select this entity by means of a tender process conducted in accordance with the Bank's procedures, with SEGEPLAN VIII awarding a contract to the winning bidder. The contract between SEGEPLAN VIII and the CEU will also specify responsibilities with respect to the execution of Component I, in which the INTA will have a supervisory role.

## 2. Coexecuting agencies

2.8 The entities subcontracted by the CEU to serve as coexecuting agencies for the program may be consulting firms, NGOs, companies or other similar entities.

III. COMPONENT I. FORMALIZATION OF LAND TENURE IN THE MAYAN BIOSPHERE RESERVE BUFFER ZONE

- 3.1 The task in the first phase of the program will be to legalize ownership and occupation of land in the Mayan Biosphere Reserve (RBM) zone.

1. Objective and activities of the component

- 3.2 The **objective** of this component is to regularize land ownership to set the stage for sustainable management of natural resources in the buffer zone, help protect the RBM, and discourage migration into the multiple-use and core areas of the region.

- 3.3 The **activities** to be carried out are grouped as follows: (a) hiring of consultants; (b) consultations with communities and land occupants during cadastral activities, and support for the issuance of deeds; (c) land surveying activities carried out by consultants; (d) administrative support for INTA in the processing of title deeds; and (e) creation of a land register (included in component IV of the program).

2. Plan of execution for the component

- 3.4 The CEU, in cooperation with INTA, will invite offers and award contracts for consulting firms to carry out the tasks included under this component.
- 3.5 The proposal is to use the methods currently being employed by the Land Commission of Petén for carrying out the activities of this component.

IV. COMPONENT II. CULTURAL HERITAGE PRESERVATION AND TOURISM SERVICES

1. Objectives and activities of the component

- 4.1 The objectives of the component are to: (a) preserve the cultural and historic heritage of archeological sites; (b) improve the quality and diversity of tourist attractions in Petén, and create nontraditional sources of employment; and (c) integrate activities at tourist sites into the local economy.

- 4.2 **Archeological restorations.** In the Yaxhá project, work will proceed on the Gemelas grouping of pyramids and the Blum roadway. At Tzikín-Tzakán a vault will be restored. The Petexbatún project will include restoration of stone inscriptions on stelae, steps and a palace at Dos Pilas, a pyramid at El Duende, a defensive rampart, steps in the central plaza, and one palace at Aguateca and several palaces at Arroyo de Piedra.

- 4.3 Both the Yaxhá and Petexbatún projects will include building a visitor's center according to the description and architectural plans appearing in the prefeasibility studies.
- 4.4 The Government of Guatemala has made a commitment to provide for adequate maintenance of the access road at Yaxhá.
- 4.5 At Dos Pilas, the CEU will request that an environmental impact assessment be carried out and a mitigation plan prepared for improvements to the Dos Pilas-El Caribe access road.

2. Plan of execution for the component

- 4.6 Work on the preservation of archeological sites will be divided into three bidding packages: one for the Yaxhá group, another for the Dos Pilas and El Duende sites, and a third for Aguateca. The last two groups belong to the Petúx-Batún area.
- 4.7 Contracts on these bidding packages will be awarded by an Archeology Committee made up of the Director of the IDAEH, the Deputy Minister of Culture and Sports, an expert from Vanderbilt University, and a Guatemalan archeologist belonging to the Archeology Council (to be selected by the Minister of Culture and Sports). With the assistance of the Department of Prehispanic Monuments, this committee will also monitor the restorations themselves to ensure strict compliance with the methods specified in the contracts for restoration works. Among other basic criteria, the winning contractors will be required to have previous work experience on Mayan archeological sites in Petén. Universities with prior experience working on these same sites are expected to submit bids, including the University of San Carlos. The IDAEH will be in charge of maintaining these sites. Funds have been included under component IV (institutional strengthening) to train personnel who will be responsible for maintenance of the sites, especially those of the local community.
- 4.8 The CEU will invite bids for the construction of tourist infrastructure in two packages, one for the Yaxhá group of sites and another for the Petexbatún group. Bids on opening up the road to Dos Pilas will be invited separately, as will offers to construct the floating docks. Given the modest amounts and rustic nature of these works, local companies will be particularly interested in bidding on them. Promotional activities and training for members of the community under this component will be assigned to the INGUAT which is already engaged in similar tasks.
- 4.9 A separate committee will be created at each site to award concessions for the operation of tourism infrastructure (crafts and food stands, docks, etc.), with representatives from the INGUAT, the municipality, the local ecotourism committee, and the Regional Women's Committee (CRMP). These committees will be responsible for

consideration and approval of proposals submitted by prospective concessionaires, based on established criteria. Members of the local community will be given priority in the awarding of these concessions, and will be required to make counterpart contributions to be determined by the INGUAT.

- 4.10 The revolving funds will be managed by the INGUAT initially, until the ecotourism committees or associations of microentrepreneurs from the communities acquire the necessary experience (the draft regulations governing the funds are in the RE2/EN2 technical files.)
- 4.11 In addition to the inflow of funds in the form of disbursements from the IDB, the project will generate revenues of its own. 1/ These will be used for security services and future archeological restoration and protection efforts, thus ensuring the sustainability of the component.

#### **V. SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES**

- 5.1 This component will be carried out in territory adjoining protected areas in southern Petén, and aims to develop sustainable production activities based on different systems of sustainable agroforestry and agricultural production on private farms, and pilot projects in community-based management of secondary natural forests. In order to facilitate acceptance of these systems, additional community organization and training activities are planned as well. In addition, applied research will be carried out in parallel with the production activities, the findings from which will be used to verify the technologies used.

##### 1. Objectives of the component

- 5.2 The natural resource management component is based on conservation through rational use, and to achieve this the program will seek to:
  - (a) improve traditional family farming systems through diversification of production and introduction of soil

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1/ During execution of the program consideration will be given to the possibility of creating a trust fund to administer the revenues received from concession fees and admission charges paid by visitors to parks for use in maintaining the sites. This could include creation of a mixed public/private foundation to administer the resources. This fund could be set up in the second stage of the program.

conservation, appropriate agricultural methods; forest management activities, reforestation and agroforestry;

- (b) promote community-based forest management in order to diversify sources of income and employment, and to ensure the stability of forest cover;
- (c) improve the level of community organization and communication by promoting participation in the identification, formulation, management and execution of socioeconomic development projects and local environmental programs;
- (d) boost the supply of food and energy (firewood) available to the local population;
- (e) develop local research capacity to meet the need for planning, technology and production in the region;
- (f) promote economic complementarity between agricultural and forestry activities at the level of the individual farm and within the region as a whole; and
- (g) contribute indirectly to the preservation of protected areas in Petén and ensure the effectiveness of surrounding buffer zones.

## 2. Plan of execution for the component

- 5.3 The CEU will invite bids on two or more groupings of projects under this component. Selection of winners will be made by the Regional Consultative Committee based on an evaluation of bids prepared by the CEU. The CEU will be responsible for supervising the technical assistance agencies (OATs) awarded contracts under this component, disbursing payments to them in accordance with the terms and conditions of their contracts. Technical and financial reports prepared by the OATs will be reviewed by the CEU before being submitted to SEGEPLAN VIII and the Bank, together with an annotated summary of the progress achieved and performance under the component.
- 5.4 The projects under this component will be carried out by campesino organizations (community development committees, artisan groups, cooperatives, groups of collectors of nonwood products and other associations of farmers interested in participating in the program. These farmers will either sign individual contracts or be covered by collective agreements signed between their own community-based organization and the respective OAT. The selection of farmers and interested organizations will be made using the guidelines laid down in these Operating Regulations for execution of the component.
- 5.5 The means for executing the program have been organized around experience gained from other projects carried out in Petén – in

particular those financed by the USAID and Germany's GTZ. These experiences point to the need to carry out promotional and outreach programs in project areas through the media and by mounting workshops for local organizations and farm leaders' associations, especially in the first year of the program.

3. Areas in which the component's activities will be carried out

5.6 These activities may be carried out in any community and area that meets the criteria set out in these Operating Regulations. However, the areas earmarked in advance for pilot projects that will take place in this first four-year phase of the program are as follows:

- (a) Area of influence around the San Román Biological Reserve, including the communities of El Progreso, El Porvenir, El Rosalito, Nueva Cobanerita, Nueva Esperanza, San Rafael, San Fernando and Las Pozas;
- (b) Cooperatives along the Usumacinta and La Pasión rivers located on the southern slopes of the Sierra del Lacandón mountains, including communities at San Luis Buena Fé, Ixmucané and La Bella Guatemala;
- (c) Poptún: pine groves of the central areas and towns in the area of influence on the southern and western flanks of the Mayas mountains, including the communities of Sabanetas (with the three villages of Corazón de Jesús, Las Anonas and Naranjal-Ceibo), Nueva Esperanza and Los Limones.

4. Promotional activities and training

5.7 The CEU will be responsible for promoting awareness of the program under this component. It will work to ensure that adequate information is made available at both the regional and local level on the program, its goals and achievements, beneficiaries and geographical coverage, the agencies involved and their various responsibilities, and other relevant aspects concerning its development. The CEU will also mount a national awareness campaign using radio programs and regular news releases for the print media.

5.8 Promotional activities at the local level will be the responsibility of the OATs hired to assist with this component, and will include a variety of communication methods such as home visits and work with special interest groups. Local promotional work will seek to spread awareness of technical aspects of the program and, through demonstration farms, to develop training and information activities aimed at organized groups of farmers and whole communities.



- 5.9 Activities that will be financed by the program and carried out by the OATs to promote adoption of alternative technologies include:
- (a) organizing groups of farmers according to types of production they engage in and holding meetings on farms to study their problems and opportunities, and to facilitate the exchange of experience;
  - (b) identifying promising sustainable production systems and farming operations that have successfully applied these in the region, and that can therefore serve as demonstration farms for the purposes of training and information;
  - (c) training for producers through the farmers' groups that have been set up, including individual instruction in planning land use at the farm level;
  - (d) group exchanges within and between communities aimed at observing the experiences of others and ways of adopting the new technologies, including visits to sites or research centers to demonstrate major advances in agriculture, tree planting and agroforestry systems;
  - (e) preparing with simple instructions on technologies of demonstrated efficiency (adjusted to individual farmer's level of education);
  - (f) training activities for the program's technical personnel in topics directly related to achieving the planned objectives; and
  - (g) support for titling efforts on behalf of farmers that have settled in the project area, including funds for organizing community action committees to promote regularization of land ownership, support for completing files prior to submission to INTA, and conducting appraisals of plots.
- 5.10 The forest management activities in this component differ from other aspects of the program in that they are to be administered by the community and will yield returns on capital over long periods of time. For this reason, the promotional activities and transfer effort in this field must be carefully planned and discussed with the beneficiaries. As in other technology transfer programs, technical assistance and training activities must serve as the principal incentives, and where opportunities for other means are identified (i.e. provision of materials or financial resources), care must be taken to ensure that recipients have a clear grasp of the financial viability and sustainability over time of forestry activities, and that their interest does not derive solely from the incentives themselves. Accordingly, the OATs must pay special attention to the following aspects:

- (a) setting up community committees to coordinate community-based forest management projects, and creating specific support committees;
  - (b) providing assistance for development of management plans, in the case of public land where communities will operate forestry concessions, 2/ as well as for the organization and implementation of these plans, distribution of profits, administration of community resources and improvement of marketing methods; and
  - (c) arranging for exchange of experiences with communities in Petén and neighbouring countries that have advanced forest management systems in operation to demonstrate both successes and pitfalls (for example, the local communities of San Miguel, Bethel, La Lucha, and community-based forestry projects in Mexico, especially in Quintana Roo).
- 5.11 Training for farmers will be provided both by OAT extension workers and by specific consultants, according to the subject matter involved. The OATs' extension workers will be trained by the respective OAT coordinator, CEU specialists or specific consultants hired for the purpose. In the latter case, the approval of the CEU is required and consultants must be hired according to the procedures set out in these Regulations.
5. Activities and areas eligible for funding under the component
- 5.12 Activities included in this component will be funded in two ways: through cofinancing of the program for the benefit of farmers, and by means of revolving funds. The latter option will be governed by the regulations adopted for specific revolving funds, while the activities to be funded with co-financing are detailed below.
- a. Funding of activities by local producers on privately-owned farms
- 5.13 On small plots farmed by low-income campesinos, the aim is to balance the need to generate immediate income with preservation of natural resources to ensure sustainable production in the long run. To do this, the program will apply land management criteria to small holdings in order to study their production potential and/or limitations.

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2/ Among the areas indicated in chapter V(3) (paragraph 5.6), use concessions would apply in San Ramón and Poptún. Well-defined technical standards and EIA procedures have been established for these long-term (25-year) concessions in El Petén, with USAID funding.

5.14 The objective is to create diversified and stable farming operations by improving current systems of production (primarily basic grains) and introducing or improving fruit growing, raising of small animals and the use of agroforestry systems, as well as management of family woodland reserves for collecting firewood and timber. On this basis, one or more of the following methods will be employed with the approval of the individual farmer:

- (a) **Agroforestry systems.** This will include promoting mixed cropping of perennials or short-cycle crops in family gardens together with planting of fruit trees and other trees, alley cropping, use of hedgerows, planting of trees in cultivated fields, improved crop rotation with better farming and cultivation practices, among other approaches. The program will provide resources to pay for the technical services and inputs (plants, seeds, fertilizers and materials for small infrastructure projects) required to establish these systems.
- (b) **Sustainable agriculture systems.** This heading includes establishing diversified production systems for various nontraditional products (sesame seed, pineapple, watermelon, peppers, etc.), the building of soil conservation works (living and other barriers, digging of drainage ditches, etc.) and the use of other modern farming techniques (companion crops, contour farming, organic additives, crop rotation, minimum tillage, etc.). The program will cover the cost of the technical services, basic inputs for establishment and maintenance of these systems, and shipping of materials.
- (c) **Combined livestock and forestry systems.** Systems will be developed for use on family farms combining cattle-raising – based on optimal stocking rates – with the growing of tree species in hedgerows or scattered over pastureland, including woodland pasturage for dairy or beef cattle, logging and/or gathering of nuts and other nontimber products. The program will cover the cost of technical services, the plants needed to establish these systems, and certain basic materials.
- (d) **Management of forest reserves.** In order to ensure conservation of the remaining woodlands, support will be provided for introducing forest management in the supply of fuelwood and lumber for local construction works. The program will provide technical services to set up management systems and inputs for small improvement projects.

b. Pilot project in community-based forest management

5.15 These forest management activities will be carried out in woodland areas adjacent to the communities and include authorized gathering of nontimber products (such as xate, chicle and pepper spice) and

planting fuelwood stands to meet specific needs of the communities. Efforts will be made to promote the use of a felling sequence for species of primary and secondary wood species. 3/

- 5.16 The system introduced in the region will utilize a multi-resource approach designed to make sustainable use of a large number of products, especially nontimber products, based on both local needs and market requirements. The objective is to provide the communities with a sustainable source of forest products that will meet their need to boost family incomes, which will in turn provide increased motivation for protection these resources from deforestation.
- 5.17 The program will provide the technical assistance and other investments in materials, equipment, operating expenses and services, needed to inventory forest resources and draw up management plans. As well, the program will provide funding to set up the committees that will operate community-based forest management concessions. The communities will contribute labor for the projects.

c. Management of pine forests on private farms

- 5.18 This project will encourage proper management of remaining natural stands of the rare and highly-prized native pine species, *Pinus caribaea poptunensis*, in the southern part of Petén. Activities will range from the management of seed-production stands for both export and utilization in Guatemala, to production of timbers and combination cattle raising and forestry operations. The program will co-finance only the necessary technical services and silvicultural activities of an experimental nature or for demonstration purposes. Forest management activities will be under the responsibility of the participating landowners.

d. Applied research on farms and in community-run concessions

- 5.19 Research projects carried out on farms in parallel with extension services offered by the OATs will be the direct responsibility of each OAT and will be financed by the program. The farmer's contribution will consist of the provision of land and monitoring of the respective tests. The program may finance the hiring of consulting services to provide specific assistance with identification, design, supervision, data processing and evaluation of research projects. The research in each community forest will consist primarily of setting up at least six experimental plots for measurement of yields, and these will be monitored by the community

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3/ The primary timber species are mahogany and cedar, while secondary species (for which CATIE and others have developed markets) include *ceiba*, *amapola*, *ramón*, *danto*, *cola de coche*, and *guapaque*.

and technical staff of each OAT, with the help of consultants. 4/

e. Summary of items for financing and co-financing

- 5.20 The program will promote sustainable development in forestry, agroforestry and agriculture through direct investment in technical services, training, equipment for measuring forest growth and topography, inputs (seeds, plant material, fertilizers), materials for small infrastructure projects (nurseries, fencing), draft animals for forestry work and maintenance of nurseries in the first three years, as well as paying possible charges for overseeing the titling of land held by participating farmers, and all personnel costs, operating expenses and overhead for the OATs.
- 5.21 The applied research projects will be financed in full by the program, which means that local labor costs will be paid in accordance with the region's rate for daily wages.
- 5.22 The financial contribution of each beneficiary will depend on the specific system and management plan used in the operation. The introduction of one or more systems may be funded, depending on the interest of the farmer and the strategic importance of the operation as a demonstration farm for the program.
- 5.23 The plants needed for the production components described above will be supplied through community and family nurseries supported by the program and managed by local beneficiaries.
- 5.24 The average costs and the financing of projects submitted annually by the OATs must be in accordance with the amounts specified in the feasibility study for the respective component, although a degree of flexibility in this connection is warranted (see Appendix 2 of these Regulations).
- 5.25 The establishment of these systems will be contingent upon the farmer and his family providing the necessary labor. The program will supply the technical services, inputs and raw materials, with the exception of those that can be harmful to the environment, such as pesticides.
- 5.26 The program will pay up to 12.5% of administrative costs incurred by OATs.

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4/ The OATs will hire expert consultants to help set up research projects on farms. In addition, the CEU will sign an agreement with El Petén-San Carlos University Center (CUDEP) and a private entity for scientific research on forest management in the Instancia farm administered by CUDEP.

- 5.27 The program will bring farmers into the system gradually. After organizing the community at the grass-roots level (setting up interest groups, family gatherings, committees, etc.), some 30% of the total number of producers in each community will be included in the program during the first year, another 40% in the second year, and the final 30% in the third year. Activities on the first farms will serve as examples to demonstrate the process for training and promotional purposes.
- 5.28 Forestry activities must be designed to ensure that management committees have the necessary administrative independence so that upon completion of the first phase of the program the community will be able to hire experts to continue the management process.

6. Signing of contracts for program execution

- 5.29 The responsibilities of participating organizations and beneficiaries alike will be specified in contracts signed during the execution of each component, and must reflect the contents of these Operating Regulations.
- 5.30 The OATs may proceed to subcontract - particularly with qualified grass-roots organizations - for execution of the specific activities or parts thereof under each project for which they are responsible, duly apprising the CEU of the results of such subcontracting arrangements.
- 5.31 As part of the process of approving management plans and granting forestry concessions, the OATs will provide technical assistance to the communities in order that they may create a legally constituted body with the capacity to sign contracts with the government agencies responsible for administering the nation's forest resources (CONAP or DIGEBOS). 5/
- 5.32 The OATs will promote the formation of Beneficiary Selection Committees under the program. These committees will be made up of the Chairman of the Community Development Committee duly recognized by the departmental government, the Deputy Mayor of the community in representation of the respective municipality, and a representative of the OAT. The primary function of these committees will be to select beneficiaries under the program.
- 5.33 The OATs are to enter into cooperation agreements, both with the local development committees and with individual campesinos. Cooperation agreements may be signed with other development

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5/ Under current legislation, for example, the entity responsible for the San Ramón area (since it lies in the buffer zone around a protected area) is the CONAP, while the Poptún area is under DIGEBOS since it is in a forestry reserve.

committees or groups linked to specific interests, such as forestry concession committees, agroforestry committees or livestock farming committees. In the latter case, the OAT will sign simple cooperation agreements with individual campesinos participating in the program, in which both parties agree to maintain up-to-date and reliable records to help develop the projects.

7. Eligibility requirements and responsibilities of entities

(a) Eligibility criteria for the OATs

5.34 The OATs will be the institutions responsible for monitoring the direct beneficiaries of the program, and will be staffed by experts in one of the following categories:

- (a) Professional personnel responsible for management, coordination and administration of the projects;
- (b) Middle-level technical staff with duties relating to the provision of extension services;
- (c) Hired specialists (consultants) assigned by the administrative staff of the OAT for specific tasks relating to project development, with emphasis on: monitoring and evaluation, training in specific areas, design of research projects, market studies and other tasks requiring participation for a period of up to three months; and
- (d) Local representatives: farmers from the communities who possess leadership qualities and the ability to provide technical and logistical support for the development of program activities, in close coordination with extension workers. These representatives will receive a monetary stipend from the program to be determined by the Beneficiary Selection Committee, and will be expected to devote 20% of their working day to supporting the program.

5.35 The OATs must meet the following minimum eligibility requirements:

- (a) They must be duly constituted under the law;
- (b) They must provide proof of technical experience with the administration, execution, supervision and evaluation of projects in the field covered by the program, and specifically in the natural resource management component;
- (c) They must demonstrate previous work experience in the department of Petén or other regions of Central America with agricultural and environmental conditions similar to those in Petén; and

- (d) They must have a demonstrated capacity to submit financial statements duly audited and in accordance with the execution requirements specified for the program.

b. Responsibilities of the OATs

5.36 The OATs will be responsible for at least the following activities:

- (a) Signing contracts with the CEU that accurately reflect the contents of these Operating Regulations;
- (b) Accepting supervision and carrying out technical recommendations from the CEU, in accordance with the contract entered into;
- (c) Barring exceptions duly confirmed and approved by the CEU, meeting the goals under each project and satisfying all specifications with respect to financial expenditures;
- (d) Preparing annual investment and operational plans for the execution of the projects;
- (e) Complying with the criteria and means specified in these Operating Regulations for technical and financial execution of the program;
- (f) Ensuring open communication channels with community representatives by cooperating in the establishment of the necessary bodies, including the Beneficiary Selection Committees;
- (g) Hiring consultants and contracting for the specialized services required for development of the projects, in accordance with the respective annual operating plans;
- (h) Signing agreements for cooperation between the program (OAT) and the local committees and individual campesinos as program beneficiaries; and
- (i) Preparing and following up on requests for disbursement of funds in accordance with the annual financial budgets.

c. Role of the grass-roots organizations

5.37 The local grass-roots organizations, one for each community, will be referred to as either "local development committees" or simply "development committees". These organizations will promote active participation by farmers in the activities of the program. The grass-roots organizations must be duly recognized by the departmental government and have the full support of the local constituency. In addition to the duties set out in their development committee constitutions, they will be asked under this program



to designate a representative to participate actively as a member of the Beneficiary Selection Committee.

5.38 The duties of the Beneficiary Selection Committee will be to:

- (a) Carry out activities to promote the program within the community;
- (b) Apply the criteria for selection of program beneficiaries to both groups and individuals;
- (c) Select program beneficiaries, with priority on working with interest groups since this reinforces the efforts of extension workers; and
- (d) Keep up-to-date records of the progress achieved under the program and plan community feedback activities in order to ensure constant awareness of program developments at all levels.

d. Eligibility criteria for direct beneficiaries (local farmers)

5.39 The farmers who will directly benefit from the program will be chosen by Beneficiary Selection Committees. Among the other requirements to be determined by this committee, the following criteria must be considered in selecting program beneficiaries, along with the production indicated in Appendix 3 to these Regulations:

**Agroforestry and sustainable agriculture component:**

- (a) Farmers must demonstrate interest in the program's objectives under the natural resource component;
- (b) Ownership, possession or use of the farmer's land must not be disputed by other members of the community or outside parties.
- (c) The farm in question must be located within the component's coverage area;
- (d) Farmers must demonstrate interest in the organization, training and development of the community, as well as willingness to work in a group setting;
- (e) They must demonstrate gender equality within the family in cases where women act as head of household or bear equal responsibility for the commitments for cooperation under the program;

- (f) Candidates must be living below the poverty line (with an income of less than US\$215/month/family) or in extreme poverty (see Appendix 1 to these Regulations);
- (g) It is preferable that they be potential leaders with the capacity to motivate others.

**Community-based forest management component:**

In addition to items (a) to (g) above, candidates must:

- (h) Demonstrate interest in community-based forestry activities;
- (i) Belong to one of the communities adjoining forest areas for which a management concession will be awarded;

**Component for forest management on privately-owned farms:**

- (j) The farmer's land must be endowed with a significant amount of forest resources (especially pine groves) for purposes of both protection and production;
- (k) The farm must have available space for carrying out applied research; and
- (l) The farm must have the necessary characteristics (representative forests) for use as a demonstration site.

e. Responsibilities of direct beneficiaries

- 5.40 The responsibilities of direct beneficiaries under the program are to:

**Agroforestry and sustainable agriculture component:**

- (a) Sign a cooperation agreement with the program to use the allotted resources (seeds, plants, other inputs) to meet program objectives according to the farm management plans or other planned activities as described earlier;
- (b) Demonstrate acceptance of the policies, selection criteria and means of execution used in the program, and be willing to participate in training activities;
- (c) Accept the technical and financial mechanisms as defined for the program and set out in these Regulations;
- (d) Maintain and expand the sustainable practices implemented on the beneficiary's farm;

- (e) Undertake not to use the land for activities that are contrary to the farm management plans under the program;
- (f) Provide personal and family labor to implement the farm management plans under the program;

**Community-based forest management component:**

- (g) Participate actively in forestry training activities under the program;
- (h) Provide labor in community endeavors that will help consolidate management of the concession;
- (i) Join community-based forest management committees and participate actively in the development of forest management plans and, where applicable, in obtaining and managing the forestry concession;

**Component for forest management on privately-owned farms:**

- (j) Contribute financial resources for carrying out the farm management plans;
- (k) Permit the development of research projects financed and coordinated by the OAT; and
- (l) Permit the use of the beneficiary's farm for purposes of training and demonstrating the results of management methods.

**f. Eligibility criteria for individuals and firms that provide consulting services**

5.41 To be eligible for selection to provide specific consulting services under the program, entities must show that they meet the following criteria:

- (a) They may be either local or international consultants provided they demonstrate the necessary professional capacity and the ability to communicate with farmers, and to adapt to the physical and socioeconomic conditions of Central America;
- (b) Where the priority is the subject matter rather than experience in the region, they must demonstrate sufficient expertise in the topic and at least five years experience;
- (c) They must demonstrate sufficient capacity to execute the required plans, programs and projects, and where necessary, show that they have adequate infrastructure and equipment for the task.

g. Responsibilities of individuals and firms that provide consulting services

5.42 The duties of individuals and firms in this category will be to:

- (a) Accept supervision and carry out technical recommendations from the CEU, in accordance with the contract entered into;
- (b) Submit work plans specifying the technical and financial procedures and methods to be used in complying with the terms of reference for the particular consulting service; and
- (c) Give due consideration to the technical and financial mechanisms established in the present Operating Regulations.

8. Revolving funds

5.43 Given the limited financial resources available to the inhabitants of the region and their difficulty in obtaining credit or generating resources of their own with which to develop modern production activities, it will be necessary to establish five revolving funds for a total of US\$130,000 under component III of the program (see draft regulations governing funds in the RE2/EN2 technical files).

5.44 The revolving funds will be set up on a pilot basis and will be under the supervision and administration of the OATs during the program execution period. At the end of this period and as a result of the training which the OATs provide for the communities, the management of these funds will be turned over to community organizations.

VI. COMPONENT IV

6.1 Training courses will be put out to tender under the following modules: (i) administration and finance; (ii) planning and projects; (iii) organization and community participation; and (iv) environmental issues. These courses will be given by specialized firms chosen by tender. Contracts will be administered by the CEU, which will assign two of its staff to oversee this component.

6.2 Consulting services for the public institutions will be hired by the CEU. However, the institutions benefitting from the program will be responsible for the technical quality of studies and the CEU will require approval from these institutions for the disbursement of payments.

- 6.3 Equipment used in the program will be purchased by the CEU and distributed to the institutions. Foreign currency purchases will be paid by the IDB through direct disbursement to suppliers, while shipments payable in local currency will be paid for by the CEU.
- 6.4 The feasibility studies for the second phase of the program will be put to tender separately once the present operation is 65% complete. In this way, experience obtained under the program can be incorporated into the design of the second phase.

## VII. RESOURCE FLOWS

- 7.1 Disbursement of funds under the program will be requested by the SEGEPLAN VIII office in Petén and will be deposited by IDB directly into a bank account opened with the Central Bank of Guatemala in the name of the CEU, which will have the necessary autonomy and authority to manage these resources once they are deposited in its bank account in Petén. The amounts required for SEGEPLAN VIII consulting services, the promotional campaigns and training programs, and revolving funds for small-scale tourism projects to be administered initially by the INGUAT for microentrepreneurs, will be transferred directly to these organizations. The purchases in foreign funds – in particular, those for vehicles – can be disbursed directly by the IDB with prior authorization from SEGEPLAN VIII.
- 7.2 The OATs, in their role as coexecuting agencies for component III, will be responsible for managing project advances transferred by the CEU into their bank accounts in Petén. The SEGEPLAN VIII office will authorize the replenishment of funding upon presentation of accounts and receipts in accordance with the Bank's procedures. SEGEPLAN VIII will then review the documentation and submit a request for disbursement to the IDB. Payments to subcontractors will be made by the CEU under the terms and conditions of their contracts.
- 7.3 As well, the coexecuting agencies will submit monthly budget performance reports to the CEU, and the latter will forward these to SEGEPLAN and the Bank's Country Office in Guatemala. The coexecuting agencies and the CEU will be subject to financial control and supervision by the Internal Audit Department of SEGEPLAN and the Office of the Controller General of Guatemala, as well as semiannual external audits carried out during program execution with resources from the Government of Guatemala.

## WEIGHTING OF SELECTION CRITERIA FOR PROGRAM PARTICIPANTS

CRITERIA	POINTS
<b>POVERTY OF APPLICANT</b>	
Above poverty line	2
Poverty line	4
Extreme poverty line	6
<b>PERCENTAGE OF FARM AREA THAT APPLICANT IS PREPARED TO OPERATE SUSTAINABLY</b>	
1 to 15%	1
16 to 30%	2
31 to 45%	3
46 to 60%	4
60 to 75%	5
more than 75%	6
<b>INTENSITY OF FARMING OR GRAZING ON FORESTLAND</b>	
1 year of farming or grazing/more than 7 years fallow	2
1 year of farming or grazing/3 to 6 years fallow	4
1 year of farming or grazing/1 to 2 years fallow	6
<b>DEGREE OF COMMUNITY ACCEPTANCE</b>	
Some knowledge and acceptance of program	2
Acceptance by local authorities	4
Acceptance by most members of community	6

**MAXIMUM AMOUNTS OF GOVERNMENT CONTRIBUTIONS TO THE COST OF PRODUCTIVE ACTIVITIES  
(% and US\$/ha)**

<b>Systems</b>	<b>Labor</b>  (%)	<b>Agricultural inputs</b>  (%)	<b>Soil conservation and forestry inputs</b>  (%)	<b>Technical assistance</b>  (%)	<b>Maximum contribution</b>  (US\$/ha)
Sustainable agriculture	0	(b)	100	100	125
Agroforestry systems	0	(b)	100	100	220
Forest grazing systems	0	(c)	100	100	150
Forest plantations	0	0	100	100	280
Natural forest management	(a)	0	100	100	100

**REMARKS:**

- (a) 100% in forest inventory activities during year one; 50% in protection and management activities during the first two years.
- (b) Includes inputs for year one as required to set up productive systems; this amount may not exceed 40% of total set-up costs. Pesticides are not included.
- (c) Includes inputs for improving plant components of system.

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GU-0081  
Original: Spanish

PROPOSED RESOLUTION

GUATEMALA. LOAN \_\_\_\_/OC-GU TO THE REPUBLICA DE GUATEMALA  
(Sustainable Development Program for Petén)

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the República de Guatemala, as Borrower, for the purpose of granting a financing to cooperate in the execution of a Sustainable Development Program for Petén. Such financing will be for the amount of up to five million seven hundred thousand dollars of the United States of America (US\$5,700,000) from the Single Currency Facility of the Ordinary Capital resources of the Bank, and will be subject to the "Special Contractual Conditions" and the "Terms and Financial Conditions" of the Executive Summary of the Loan Proposal.



RGII-GU054P  
GU-0081  
Original: Spanish

PROPOSED RESOLUTION

GUATEMALA. PARTIAL PAYMENT OF INTEREST ON LOAN No. \_\_\_\_/OC-GU  
TO THE REPUBLICA DE GUATEMALA  
(Sustainable Development Program for Petén)

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank as administrator of the Intermediate Financing Facility Account, hereinafter referred to as the "account", to enter into such contract or contracts as may be necessary with the República de Guatemala as Borrower, and to adopt other pertinent measures to use the resources of the account to pay a part of the interest due by the Borrower on outstanding balances of the loan authorized in the Resolution DE-\_\_\_\_/\_\_, in accordance with the provisions set forth in Document FN-263-2, as amended, approved by the Board of Executive Directors on December 21, 1983.

RGII-GU055P  
GU-0081  
Original: Spanish

PROPOSED RESOLUTION

GUATEMALA. LOAN \_\_\_\_/OC-GU TO THE REPUBLICA DE GUATEMALA  
(Sustainable Development Program for Petén)

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the República de Guatemala, as Borrower, for the purpose of granting a financing to cooperate in the execution of a Sustainable Development Program for Petén. Such financing will be for the amount of up to fourteen million one hundred thousand dollars of the United States of America (US\$14,100,000) from the Single Currency Facility of the Ordinary Capital resources of the Bank, and will be subject to the "Special Contractual Conditions" and the "Terms and Financial Conditions" of the Executive Summary of the Loan Proposal.