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UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY  
AGENCY FOR INTERNATIONAL DEVELOPMENT  
Washington, D. C. 20523

PERU

PROJECT PAPER

EMPLOYMENT AND NATURAL RESOURCE SUSTAINABILITY

AID/LAC/P-690

PROJECT NUMBER: 527-0341

UNCLASSIFIED

PD-ABD-641

<b>AGENCY FOR INTERNATIONAL DEVELOPMENT</b> <b>PROJECT DATA SHEET</b>		<b>1. TRANSACTION CODE</b> <input type="checkbox"/> A = Add <input type="checkbox"/> C = Change <input type="checkbox"/> D = Delete Amendment Number _____	<b>DOCUMENT CODE</b> 3
<b>2. COUNTRY/ENTITY</b> USAID/PERU		<b>3. PROJECT NUMBER</b> 527-0341	
<b>4. BUREAU/OFFICE</b> LAC		<b>5. PROJECT TITLE (maximum 40 characters)</b> Employment/Ntrl. Resource Sustainability	
<b>6. PROJECT ASSISTANCE COMPLETION DATE (PACD)</b> MM DD YY 09 30 95		<b>7. ESTIMATED DATE OF OBLIGATION</b> (Under "B" below, enter 1, 2, 3, or 4) A. Initial FY 91 B. Quarter 4 C. Final FY 92	

8. COSTS (\$000 OR EQUIVALENT \$1 = )						
A. FUNDING SOURCE	FIRST FY 91			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total	1,239	886	2,125	2,160	1,440	3,600
(Grant)	( 1,239 )	( 886 )	( 2,125 )	( 2,160 )	( 1,440 )	( 3,600 )
(Loan)	( )	( )	( )	( )	( )	( )
Other U.S.						
1.						
2.						
Host Country						
Other Donor(s) TNC	240	160	400	840	560	1,400
<b>TOTALS</b>	<b>1,479</b>	<b>1,046</b>	<b>2,525</b>	<b>3,000</b>	<b>2,000</b>	<b>5,000</b>

9. SCHEDULE OF AID FUNDING (\$000)									
A. APPROPRIATION	B. ACTIVITY CODE	C. PRIMARY TECH CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) ARDN	EVFR					3,600		3,600	
(2)									
(3)									
(4)									
<b>TOTALS</b>									

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)								11. SECONDARY ACTIVITY CODES EVMP, EVWR	
12. SPECIAL INTEREST CODES (maximum 7 codes of 4 positions each)									
A. Code	BDV	NFM	NRM	RUR	SGC	TWN	WTL		
B. Amount	2,016	1,800	1,800	3,240	720	360	1,800		

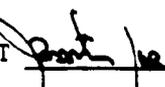
13. PROJECT PURPOSE (maximum 480 characters)

To create in Pacaya-Samiria a balance between natural resource conservation and biodiversity protection and economic use, leading to sustainable and increasing regional productivity and income.

14. SCHEDULED EVALUATIONS				15. SOURCE/ORIGIN OF GOODS AND SERVICES				
Interim	MM YY	MM YY	Final	MM YY	<input checked="" type="checkbox"/> 000	<input type="checkbox"/> 941	<input type="checkbox"/> Local	<input checked="" type="checkbox"/> Other (Specify) Peru
	07 93			07 95				

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a \_\_\_\_\_ page PP Amendment)

Mission Controller has reviewed and concurs with the methods of implementation and financing included herein.

Paul Kramer, CONT 

17. APPROVED BY	Signature	18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION
	Title	
	Mission Director USAID/Peru	MM DD YY 04 30 96

## PROJECT AUTHORIZATION

NAME OF COUNTRY: PERU  
NAME OF PROJECT: Employment and Natural Resource Sustainability  
NUMBER OF PROJECT: 527-0341

A. Pursuant to Section 103 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Employment and Natural Resource Sustainability project for Peru involving planned obligations of not to exceed \$3,600,000 in grant funds over a two year period from date of authorization, subject to the availability of funds in accordance with the A.I.D. OYB/allotment process, to help in financing foreign exchange and local currency costs for the project. The planned life of the project is four years from the date of initial obligation.

B. The project consists of assistance to The Nature Conservancy (TNC) to create in Pacaya-Samiria a balance between natural resource conservation and biodiversity protection, and economic use, leading to sustainable and increasing regional productivity and income. The project will assist in providing the skills and opportunities needed to enable local workers and entrepreneurs to strengthen linkages with the formal commercial sector, through more profitable and environmentally self-sustaining development activities. In order for the project to achieve this objective, it will furnish information to improve the incomes derived from the harvesting, processing and marketing of extracted resources, and a management system to increase, maintain and protect the resources upon which they are reliant.

C. The Grant Agreement which may be negotiated and executed by the Officer to whom such authority is delegated in accordance with A.I.D. regulations and Delegations of Authority shall be subject to the following essential terms and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate.

1. Source and Origin of Commodities. Nationality of Services

Commodities financed by A.I.D. under the project shall have their source and origin in the United States except as A.I.D. may otherwise agree in writing. Except for ocean shipping, the suppliers of commodities or services shall have the United States or the Cooperating Country (for local cost financing as discussed in the Project Paper and paragraph 3 below) as their place of nationality, except as A.I.D. may otherwise agree in writing. Ocean shipping financed by A.I.D. under the project shall, except as A.I.D. may otherwise agree in writing, be financed only on flag vessels of the United States.

2. Initial Disbursement

An initial disbursement of up to \$75,000 under the grant will be made for the purpose of funding technical assistance. Of this amount \$30,000 will be used to conduct an Environmental Assessment (EA) for the Project, and the remaining \$45,000 will be used to cover the costs of the TNC In-Country Advisor and the FPCN Project Director. The cost of these two long-term contractors will include salary, per diem, housing/lodging, as well as travel.

3. Authorization for Local Cost Financing

Based on the financial plan, justification, description of project activities and implementation arrangements contained in the Project Paper, local cost financing with appropriated funds is authorized and approved up to \$1.4 million for Peruvian technical assistance and local procurement of American-made commodities to fulfill program objectives and to best promote the Foreign Assistance Program. Pursuant to the Buy American Policy Guidance Cable (90 STATE 410442), the source, origin and nationality requirements of Grant Agreement Standard Provisions will apply.



9/30/91

Craig G. Buck  
Director  
USAID/Peru

Clearances:

OFA:RGriego (ID) Date: 9/25/91  
OFA:ATrujillo (ID) Date: 9/25/91  
PDP:EVarillas (ID) Date: 9/30/91  
CGNT:PKramer (ID) Date: 9/30/91  
DD:BKennedy (ID) Date: 9/25/91  
RCO:JDunlap (ID) Date: 9/15/91  
RLA:JBorns (by FAX) Date: 09/24/91

Drafted by:JDorman/LLucke/RGriego:icp  
(5849A)

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**USAID/PERU  
PROJECT PAPER  
EMPLOYMENT AND NATURAL RESOURCE SUSTAINABILITY  
(527-0341)**

**SEPTEMBER 30, 1991**

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**PROJECT PAPER-LIKE DOCUMENT  
EMPLOYMENT AND NATURAL RESOURCE SUSTAINABILITY**

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## **I. SUMMARY**

The Pacaya-Samiria Natural Reserve, Peru's largest protected area, is a biodiversity center of worldwide importance. The people in the Reserve area live off its natural resources, largely aquatic, with total incomes - cash and in kind - close to subsistence. No other national Reserve or protected area in Peru is as directly linked to the economic well-being of so many people. Local population growth, rising in-migration, and reduced isolation have driven economic demand beyond the Reserve's powers of natural regeneration. Unless harvest and marketing practices change, the natural resource base upon which these people depend will disappear. The process may be reversible, however, if the inhabitants of this area, and the local and national powers that hold sway there, can be made aware of the consequences of this behavior, and are shown alternatives which can lead to long-term survival and even prosperity.

This Project proposes to create in Pacaya-Samiria a balance between natural resource conservation and biodiversity protection and economic use, leading to sustainable and increasing regional productivity and income. The Project includes a mix of background and applied studies, accompanied by training and technical assistance directed at improving resource management and developing income-generating activities. The Project will be carried out by The Nature Conservancy entirely within the private sector, and will run for four years at an estimated total cost of \$5 million, including an A.I.D. grant of \$3.6 million.

The anticipated results of the Project may be described as four EOPS: (1) economically important species prospering; (2) Reserve management maintained at an effective level; (3) expanding community awareness of the feasibility and desirability of sustained yield practices; and (4) increasing income opportunities, with 5,000 formal and informal workers in and near the Reserve seeing annualized income increases of 10%-20%, and another 100,000 people in the extended Reserve area indirectly benefitted.

The Project is considered technically, economically, socially and institutionally sound, and the timing is right.

## **II. BACKGROUND**

### **A. The Natural Resource and Economic Setting**

The Pacaya-Samiria Natural Reserve is located in the northernmost part of Peru, east of the Andes in the lowland headwaters of the Amazon river. The Reserve is the principal source of food and income for the perhaps 100,000 people living in it and immediately nearby, and is of substantial importance to the 600,000 or so in its extended area of influence. In addition to its economic significance, the Reserve offers an example of the exceptional biological diversity found in the Peruvian Selva. Many fruit, forest, and animal/fish products are native to Peru, and Peruvian germplasm is critical to plant production research around the world.

**Peru's unresearched native Selva plants and food crops are a resource of unknown potential for social and economic improvement. Medicinal plants, such as cinchona (for quinine) and curare (used in heart surgery) have worldwide importance. New plants of medicinal importance are continually being discovered, often through the traditional knowledge held by indigenous peoples in Peru's lowland Selva. Moreover there exist many natural products which, developed through sustainable practices, could significantly increase the incomes and well being of these tropical forest communities.**

**The people in the Reserve area make their living primarily through fishing, and to a lesser extent from agriculture and the cutting and hauling of timber. Total incomes -cash and kind- are close to subsistence level. Absent changes in harvest and marketing practices, the natural resource base upon which these people depend will decrease from overuse.**

#### **B. Peruvian Policy, Programs and Practices**

**The Government of Peru has a long-standing policy of natural resources conservation management which has led to the establishment of 25 "conservation units" (national parks, reserves, and sanctuaries). These in combination with six national forests cover almost ten percent of the country. Over the years, however, the Government has been unable to afford the administrative and technical overhead such a national policy implies, and has turned to local private sources, ad-hoc combinations of private and public agencies, and more recently assistance from emerging regional governments and NGOs to actually run the parks and reserves. As an example, five of Peru's seven national parks are principally managed by the Peruvian Foundation for the Conservation of Nature (FPCN), a private sector NGO.**

**Pacaya-Samiria was established over 50 years ago. It has been largely neglected by governing authorities. In recent years the now defunct COREPASA (Comite Local de Desarrollo de la Reserva Pacaya-Samiria), an institution comprised of representatives from several local and national agencies, was in charge of administering the Reserve. COREPASA developed a Master Plan for the Reserve in 1986 to be implemented as funding and technical resources become available. Although outdated in some regards, the Master Plan is useful in preparing plans for support to the Reserve.**

**The regional government is currently establishing a special private-public consortium in Pacaya-Samiria to replace COREPASA. The regional government is jointly developing the consortium with the national government office of National Parks of Peru (PNP) which has jurisdiction over the Reserve to define the management role of each body. PNP and the Regional Government are also working with FPCN and the World Wildlife Fund, which would be active members of the consortium, to formalize this cooperative relationship (FPCN's current global agreement with PNP and Pacaya-Samiria Letter of Intention with PNP are attached in Annex K).**

### **C. A.I.D. Policy and Strategy**

A.I.D. issued its first environmental policy statement in 1976, and since then environmental and natural resources concerns have received growing attention in A.I.D. programs. A.I.D.'s environmental and natural resource policy today is based on the premise that environmental protection and the conservation of natural resources are essential to sustained economic and social development. The central objective of this policy is to help developing countries to conserve and protect their environment and natural resources, and to promote long-term economic growth by managing exploited resources for sustainable yields. Within this framework A.I.D. offers assistance in three mutually reinforcing program areas: sustainable production; maintenance of natural ecosystems and ecological processes; and meeting human needs by improving environmental quality. Within these areas two special concerns germane to this Project are the conservation and management of tropical forests, and the protection of biological diversity. The Environment and Natural Resources Policy Paper of April, 1988 lists several specific measures to be taken in the protection of biological diversity:

"a) support efforts such as resource inventories and conservation strategies which identify ecosystems or regions worthy of protection; b) encourage the establishment and maintenance of wildlife sanctuaries, reserves, and parks, and promote anti-poaching measures; c) support development of buffer zones and promote alternative sources for products normally obtained in protected areas; d) support efforts which lead to resource management or land uses which protect and conserve the extant flora and fauna; e) support training, education, public awareness, and institution-building specifically to improve the capacity of recipient countries to preserve habitats and adequately manage wild plant and animal resources to prevent species loss; and f) encourage and promote policies and policy dialogue which increase the host-country's national commitment and long-term ability to protect diversity."

All of these measures will appear to some extent in this Project, which falls under the Mission's FY 1992-96 strategic objective to reactivate the productive private sector via the creation of employment and income through activities that make use of Peru's diverse resource base while protecting and replacing it (CDSS, May 1991). The conservation of the Peruvian Amazon for sustainable contribution to the economy is to be the cornerstone of this strategy element, to include resource management activities that involve long term, sustainable yield management of tropical forests.

### **D. Problem Statement**

The national backdrop is familiar: a poor majority with little economic cushion, dependent on natural resources in or about to go into decline. For example, population growth coupled with demands for modernization has placed extreme pressure on forests. Deforestation for fuelwood, timber ranching, agriculture, urban development, and road construction has caused significant loss of habitat, native plants, and animal species. Deforestation has also degraded the

life-supporting ecosystems necessary for Peru's long-term economic growth and survival. The same has occurred nationwide with other resources susceptible to economic exploitation.

Until recently the people living in, around, and off the natural resources of Pacaya-Samiria did so more or less in harmony with the productive and recuperative capacities of the Reserve. Today, however, the congruence of local population growth, rising in-migration, and reduced isolation have driven economic demand beyond the limits of natural regeneration, and the timing of the final destruction of each valuable resource probably could be charted. The process may be reversible, however, if the inhabitants of the extended area, and the local and national powers that hold sway there: (1) can be made aware of the consequences of this behavior; and 2) are shown alternatives which lead to long-term survival, and even prosperity.

In sum, the mix of conservation and use practices now employed in Pacaya-Samiria constitute a two-fold immediate problem: inadequate conservation defending a resource under attack by a population with little economic alternative. The ultimate cause of this problem is also two-fold: ignorance of consequences, ignorance of remedies.

### III. PROJECT RATIONALE

The general proposition underlying this Project is that the survival of natural resource and the survival of the people who depend upon them are intertwined. Destructive practices will eventually destroy both sides. A positive formulation of this theme is offered by John C. Sawhill in a letter published in Time magazine July 22: "Man's well-being and nature's are inextricably linked; the more we abuse our environment, the less able the environment is to support us ... diversity in nature is essential to human survival. The loss of it threatens the interrelated web of life."

A breakdown in this equation is underway in Pacaya-Samiria, where approximately 100,000 people receive a large portion of their food and income from the Reserve and surrounding forest. There is little control of use or conservation; and scarce hope for long-term sustainability, much less improved uses of these resources. The Project offers a substantial development impact in terms of incomes and improved living conditions in the region; but, perhaps more importantly, it may prove an opportunity for replication throughout Peru and in tropical forest elsewhere. Failure to carry out this Project may lead to severe environmental and economic reverses over the near term, and a much more costly recuperation process later -if ever.

The Project offers a rational response to two sets of problems -the unbalanced mix of conservation and exploitation practices now in use, and the pervasive ignorance of the consequences of these practices, and of remedies to them. And the Project is timely: Peruvians in the public sector, in the private sector, at national and local levels desire it; the Conservancy is ready to act; and it fits within A.I.D.'s current top priorities.

#### **IV. PROJECT DESCRIPTION**

##### **A. Goal and Purpose**

The Goal of the project is a rapid, sustainable, private-sector led economic reactivation that generates foreign exchange, increases incomes, and boosts productivity while preserving natural resources. While the scope of this Goal is far broader than the range of effects possible from this Project, two Goal-related achievements are sought: stabilization or increases in economically-useful natural resource populations; and increases in per-capita incomes in the Reserve area.

The Purpose is to create in Pacaya-Samiria a balance between (a) natural resource conservation and biodiversity protection and (b) economic use, leading to sustainable and increasing regional productivity and income. Three primary indicators will be useful in ascertaining whether this Purpose has been achieved:

- the extent of net environmental degradation and of key species growth;
- changes in product volumes; and
- changes in incomes (cash and in kind)

##### **B. Project Content**

The Project will work to maintain the natural resources of Pacaya-Samiria National Reserve while providing income benefits to local communities from sustainable utilization of the Reserve's natural resources.

As a precedent to undertaking other Project components, an A.I.D. required Environmental Assessment will be carried out. The EA will be undertaken by the Conservancy using outside contractors against an A.I.D.-approved Scope of Work immediately following execution of the grant. It will be completed in collaboration with the Mission Environmental Officer within two months from the signing of the grant agreement and approved by A.I.D., prior to the expenditure of grant funds for any purpose other than the hiring of the Conservancy's In-Country Advisor and the FPCN Project Director.

For the sake of describing the Project, the intertwined themes of resources and incomes are described in two sections:

Income-increasing activities will focus resources on those people who live in rural areas along the edges of the Reserve. Roughly 60,000 people live along the Reserve's immediate borders in 136 communities. Three of these communities (Lagunas, Requena, and Nauta) are of significant size--home to a total of roughly 27,000 people. The remaining 33,000 people along the Reserve's borders are rural, disadvantaged, and are distributed in 133 small communities and family units, with a median size of roughly 275 people per community. Considering the size and scope of the Project, income-increasing activities will target 18

communities or about 5,000 people. The primary objective of the income related activities will be to carry out income generating activities to benefit 5,000 rural disadvantaged people. Additional communities will benefit from the community-to-community and project-to-community spread of information about the successes of specific income-increasing activities.

Resource-sustaining activities will focus on the improved management of the Reserve's extractable resources, protection of its biological diversity, and the diffusion of resource use information. These activities will have economic benefits for the 100,000 people who currently directly benefit from the Reserve. These activities will also provide indirect economic and natural resources sustainability benefits to the people of Iquitos.

### 1. Income-Increasing Activities

These activities will be aimed at benefiting 5,000 people in 18 communities who most economically depend upon the Reserve.

The income-increasing activities undertaken by the Project will be supervised by six FPCN Community Extensionists who will work with selected communities, and their leaders, to plan and implement development activities. The community extensionists will, with support from technical advisors, work through participatory decision-making processes to prepare Community Development Plans. At least six Community Plans will be initiated each year in years two, three, and four of the Project--to total a minimum of 18 communities by the Project's end. The extensionists will work with the communities to implement each activity, ensuring proper oversight and evaluation. The extensionists will bring resources in the form of training, technical assistance, and publications to implement income producing solutions. Activity purchases and financial administration will be carried out by the extensionists and Project leadership. Each extensionist will work out of a Project-built Community Center outfitted with communications and office equipment. These Centers will be located along the Reserve's borders at key river entrances to the Reserve. The Centers will have a community meeting room, and will be a base for conservationists and visiting technical advisors.

Community Selection. Participating communities may be located inside or along the borders of the Reserve. The Project will work out of six strategically located Project-constructed or existing community centers which will serve as the bases of operations for the Project-supported community extensionists and providers of technical assistance. Each center will also house two Project-supported Reserve conservationists, educational exhibits and a community meeting room. The following are the expected locations for these community centers: Nuevo Esperanza, San Martin de Tipishca, Veinte de Enero, Manco Capac, Victoria, and Monte Bello (see map in Annex D).

Based upon the technical analysis, the following criteria will be used for developing community participation in the income-increasing activities: 1) select communities with a more cohesive community organization vs. a focus on individual action; 2) promote community decision-making so that participants choose the activities in which they wish to

participate; 3) assess the community's commitment to the activity as illustrated by matching support; and 4) assess the willingness of the community to understand, or learn through the Project, the connection between natural resources management and sustainability of their local economies.

Community Development Plan Preparation. The Community Development Plans, as described above, will outline specific activities, including the financial and technical requirements of each to be approved by the Project leadership. This approval will include review by the Community Development, Conservation and Project Directors, and review by the Pacaya-Samiria coordinating consortium (see Project Administration, Section IV.B.4 for description of the consortium).

Activity Selection. The community extensionists will implement approximately 16 distinct activities following three main areas for income generation through the sustainable use of natural resources. These areas include the following: a) aquatic biological resources; b) agroforestry; and c) marketing.

The following criteria have been used in selecting the activities described below: 1) each activity will increase incomes in the short-term; 2) the activities are related to a renewable natural resource based in or around Pacaya-Samiria Reserve; 3) the activities build on existing technologies and markets; 4) the activities focus on building value added rather than to increase harvest amounts without also increasing value added per unit harvested; and 5) the activities reinforce conservation and natural resources management inside Pacaya-Samiria Reserve. It should be noted that while some activities, such as tropical fish extraction or tourism development, are in line with the objectives of the Project, they will require study. Since the scope of this Project is to achieve income increases in the short-term, activities such as these have not been selected to be undertaken in the first two years of the Project (see Project Administration, Section IV, B.4, for information regarding activity financing and Community Development Plan preparation).

Each community will be involved in as many of the activities listed below as is appropriate considering the communities' size, interests, and current resource-use.

#### a. Aquatic Biological Resources Activities.

The Project analyses have illustrated that fishery resources provide the most direct opportunities for improved economic activity. For example, the average annual fish production reaching the Iquitos market is 2,080 metric tons, while the current demand is roughly 2,600 metric tons. In addition, product loss in transport is conservatively estimated at 10%-20%. As a result, the Project will target the improved utilization of aquatic resources, both inside and outside the Reserve, which result in increased income generation. To begin, the general objective of the selected activities is to decrease product loss and waste, prolong usable life, improve quality and flavor with more product marketed and higher prices to the fisherman--thus increasing income.

**Based upon the Technical Analysis, the following seven illustrative activities will be undertaken:**

**\*\* Improvement of fish salting technology (currently, 21% of the fish are salted)-** Objective: To cut time spent salting fish and to decrease salt used in process. Fish last 45-60 days with the rough granular salt currently used. Fish can last 6 months to one-year using fine ground salt. Fish can then be stored until they bring a higher price or transported further distances. For example, fish is three times more expensive in Tarapoto than in Iquitos (see sample cost/benefit analysis below).

**\*\* Improvement of fish drying technology (21% of the fish are dried)-** Objective: To cut time needed for fish drying through use of more effective drying racks--introduction of passive solar drying equipment (see sample cost/benefit analysis below).

**\*\* Introduction of fish smoking technology-** Objective: To improve fish shelf-life and offer a marketable taste alternative.

**\*\* Purchase and installation of ice plants (58% of the fish are sold fresh)-** Objective: To improve access to ice by less accessible rural communities to increase shelf-life of fresh fish. Currently, ice must be transported from Iquitos or made in Requena. Transportation costs are high and much ice is lost in transit.

**\*\* Improvement of fish holding pen technology-** Objective: To improve the durability and increase capacity of the currently used river holding pens.

**\*\* Introduction of management techniques for natural fish breeding areas-** Objective: increase fish populations in key fishing areas. Probable utilization of Jenaro Herrera research station experience in the reproduction of key fish species.

**\*\* Introduction of managed turtle reproduction and egg-laying-** Objective: To implement strategies to increase the numbers of egg-laying turtles and increase the number of eggs harvested. Turtles eggs currently sell for the high price of S.63 each in Iquitos. The turtle captive breeding research carried by Finnish scientist, Pekka Soini, will be disseminated to local communities and supported by technical assistance.

Other potential aquatic resource activities will be studied, and may be implemented. These include: 1) the increased harvesting of the most economically important fish species through the improvement of nets and motors; 2) captive reproduction and wild release of key fish species; 3) the increase of "paiche" fish populations to permit the termination of a two-year moratorium now in progress (the moratorium is based upon dwindling catches and decreasing sizes of the individuals taken); and 4) the introduction of managed caiman reproduction and egg-laying activities.

### **b. Agroforestry Activities.**

The agroforestry program will improve the economic viability of the sustainable extraction of underutilized products or crops which have economic potential. Fruits and other forest products will be targeted with the aim of improving the sustainability of harvest and overall economic benefits to local inhabitants (see sample cost benefit analysis below).

The agroforestry section will first target wild palms which are notable for yielding fruits, thatch, flooring, and palm heart. For example, the pihuayo palm heart species produces palm heart, resprouts after cutting, and produces an edible fruit. The currently used palm heart species, huasayi, has been harvested in the Project area for some time but its population is dwindling in the wild. The Project will promote the cultivation of pihuayo to allow the wild species to recuperate.

Based upon the Project Technical Analysis, the following three activities will be undertaken:

**\*\* Introduce palm heart (huasayi and pihuayo species) cultivation techniques-** Objective: To deter wild harvest and introduce palm heart cultivation in areas outside the Reserve.

**\*\* Improve harvesting and increase yields of the popular aguaje and unguravi palm fruits-** Objective: To increase the level of palm fruit harvest.

**\*\* Improve palm heart transportation and storage system to maintain product quality-** Objective: To decrease product loss in shipment and distribution.

Other potential agroforestry activities will be studied to include: 1) the extraction, processing, transport, and marketing of other native fruits; 2) the cultivation, harvesting and marketing of traditional medicines which are marketed locally, nationally, or internationally such as "Sangre de Grago"; and 3) adding value to other currently extracted commodities such as wood products and native fibers.

### **c. Marketing Activities.**

Marketing activities, to take place outside the Reserve, will support the other two main segments of the Project through work with local communities and organizations to improve the preparation, transport and promotion of products. The following six activities will be undertaken:

**\*\* Improvement of wharf and ramp facilities at markets-** Objective: To ease boat loading and unloading in Requena, Nauta and Bretana by the addition of floating wharf and articulated ramps.

**\*\* Improvement of fish transport containers- Objective: To better protect fish by decreasing physical damage and spoilage.**

**\*\* Construction and/or improvement of storage structures- Objective: To decrease product loss during wait for shipment and distribution.**

**\*\* Introduction of market information dissemination system-Objective: To increase the availability of product price and market conditions information through radio programs and the Project's community extension program.**

**\*\* Improvement of marketing skills- Objective: To train local communities in marketing techniques such as product presentation, form and condition. The project may utilize the existing Jenaro Herrera research station as a training center.**

**\*\* Improved organization of communities through the establishment of marketing cooperatives and improvement of transportation equipment- Objective: To increase sales opportunities and improve transportation efficiency through the use of existing community structures as appropriate, such as the Requena fishing association, or the establishment of new marketing facilities.**

Other potential marketing activities will be studied to include:

1) the preparation of a tourism development plan for the Reserve and begin its initiation; and 2) the marketing of locally made arts and crafts.

Community Development Plan Supervision and Training. The community extensionists will be supervised by the FPCN Director of Community Development. This Director will aid the extensionists in the preparation of the community plans, the design and coordination of training programs, the identification and fulfillment of technical assistance needs, and will coordinate the preparation of income-related publications. The Director of Community Development will also coordinate the Project's work with other public or private development initiatives and the Pacaya-Samiria consortium.

The community extensionists will receive training over a period of six-months during the first year of the Project in a program to be designed by the Community Development Director, the FPCN Project Director and the Conservancy's In-Country Advisor. This program will be directed by the Community Development Director.

Community Leader Training. Community-selected income-increasing activity leaders will be chosen from 18 communities. The community extensionists and Community Development Director will design and carry out a training program regarding specific training income-increasing activities. This will include community-based training to be carried out by the community extensionist and technical advisors and some centrally located training to be organized by the Community Development Director. It is expected that at least 360 community representatives (estimated at 20 people per year per extensionist) will receive the direct training

by the community extensionists and that at least thirty-six other leaders (two per community) will receive the more comprehensive centrally located training.

## **2. Resource-Sustaining Activities: Natural Resource Use and Conservation Unit Management**

Resource-sustaining activities will target the improved use and protection of the natural resource base of the Reserve through the establishment and operation of an effective management program.

These activities will be aimed at benefiting the 100,000 people who directly benefit from the Reserve through the following: 1) protecting and maintaining the fish, turtle and caiman and other wild animal populations on which these people depend for their economic well-being; 2) providing new information on the use and conservation of key economically important species; and 3) disseminating information to local people regarding the use of the Reserve's resources.

The FPCN team of 25 Reserve conservationists, supported by Conservancy match funding, will support the community extensionists by disseminating information and talking with Reserve users as they enter, leave, or travel within the Reserve. The conservationists will also educate users about the Reserve's regulations and will work with the central Reserve office to enforce resource use regulations. The conservationists will work out of the Community Centers and Reserve Posts, and will travel by boat along the rivers both inside and at the borders of the Reserve. The Project will hire community members as construction workers to build the Community Centers. It is expected that at least some Reserve conservationists will be selected from this group.

### **Reserve Management**

The heart of the resource-sustaining activities will be the placement of 25 trained and equipped, TNC supported, Reserve conservationists. These people will come from the local communities and will be trained as natural resource and community relations specialists.

The team of Reserve conservationists will carry out the following: 1) the demarcation of Reserve boundaries; 2) patrol of the Reserve's waterways and boundaries; 3) the issuance and review of user permits; 4) review of fish catches and the recording of resources taken from the Reserve; 5) dissemination of resource use, conservation, and income opportunities information; 6) development of positive community relations; 7) facilities maintenance; 8) provision of logistical support to Reserve management staff, community extensionists, and technical advisors; and 9) other activities relating to the field implementation of the existing development master plan for the Reserve.

The specific role of the Reserve conservationists as enforcers of law pertaining to the use and abuse of the Reserve will be defined by and coordinated with the Pacaya-Samiria

**Consortium.** Enforcement and control functions, are, in this Project, only one of many important duties to be undertaken by the non-GOP Reserve conservationists.

A primary role of the Reserve conservationist is the monitoring and control of illegal extraction of resources within the Reserve, such as hunting endangered species or fishing out of season. Currently, in Pacaya-Samiria, some species such as paiche are being depleted because of overuse and poor control. Strict enforcement of conservation law, although sometimes necessary, often backfires--especially when park guards are outsiders and are known to violate the laws themselves. Perhaps the best method to gain control is to develop an honest team of project related and supported Reserve conservationists who work with the communities and who themselves depend upon the resource. Community support, such as this, can be only gained through the development of positive relations with the Reserve conservationists including a sense of trust. Once communities recognize that the control system is fair and protects the resources upon which they depend, they are more likely to help identify or discourage people who overuse or abuse them. Although this approach requires a more gradual implementation than strict enforcement, it is gaining acceptance as the most effective method in Latin America.

A Training Summary for the project is detailed in Annex I.

Conservationist Supervision and Training. The conservationists will be managed by the FPCN Director of Conservation, and will be divided into teams of 2-3 per Community Center or Reserve Post. The Director of Conservation will supervise the team leaders, design and coordinate training programs, and coordinate the preparation of resource management related publications and documents.

The Reserve conservationists will receive a five-month training during the first year to be designed by the Conservation Director, the FPCN Project Director and the Conservancy's In-Country Advisor. The training will develop the skills needed to carry out their specific duties to include: 1) the development and maintenance of positive community relations; 2) the use and care of field equipment; 3) the basics of ecology and natural area management, to include explaining why the Reserve is important; 4) Peru's conservation laws; 5) first aid; and 6) river navigation and field orientation. Training materials for these conservationists will be prepared to possibly include a conservationists' Manual.

Resource-Sustaining Materials Preparation. The Director of Conservation will work with team leaders, to be identified within each group of Reserve conservationists, to develop priorities in the preparation of the resource use materials. These materials will focus on the importance of the Reserve, the use of its resources, and conservation practices. Reserve conservationist training materials will also be developed. All Resource-Sustaining materials will be developed in coordination with materials used in the income-increasing component. It is expected that the Project will work with local NGOs and community groups to develop and disseminate these materials.

### Facilities Development

The Reserve conservationists will be based out of ten sites. Six of these sites will be Community Centers located along the perimeter of the Reserve (see Income-Increasing Activities, Section B.1, for greater description of these centers). The four other sites will be control posts and administrative facilities located along key rivers within the Reserve. These four sites will include office space, an educational display room, living quarters for the Reserve conservationists, and sleeping space for 2-4 visitors. Each Community Center will contain an average of two conservationists and short-term technical advisors; each Control Post will be staffed with an average of three conservationists.

To develop and equip the Reserve's management infrastructure, the Project will support: 1) the furnishing of the four control and administrative facilities; 2) the purchase and installation of basic field equipment and supplies; and 3) the purchase and installation of communications and transportation equipment, including radios and boats. Signs will also be prepared and placed along key borders and entrances to the Reserve. These signs will both demarcate boundaries and provide resource use information.

### Land Use Planning

Using information received from the Socio-economic and Land Use and Management Studies (described in 3. Project Inputs, of this section), and in collaboration with local communities and World Wildlife Fund, the Project will prepare recommendations to be submitted to regional and national governmental authorities regarding the land use allocation in and around Pacaya-Samiria Reserve. Since the majority of the lands used by local communities surrounding the Reserve have no established community land-use rights or ownership, land-use and colonization are random. Many communities currently have no secure rights to the future use of lands which they have used for years to extract construction materials, fruits, medicines and other products. It is expected that the above mentioned recommendations will include the establishment of "community-use" or other zones which define the rights of the existing local communities to extract renewable resources and carry out their traditional income generating activities.

### Long-Term Management of the Reserve

A key to the maintenance of the Reserve's resources will be the establishment of long-term funding mechanisms for the Reserve conservationist positions and operating costs following the termination of the Project.

The Conservancy has established itself as a world leader in carrying out debt-for-nature swaps and now has three full-time experts in the establishment of this and other long-term funding mechanisms. Technical assistance provided by these TNC experts will be used to

establish a Pacaya-Samiria Trust Fund. The principle funding mechanisms will include multilateral and bilateral funding, debt-for-nature swaps, and private sector donations.

Private Sector Donations. The Conservancy's operating philosophy is to continue funding the management of "adopted" parks and reserves until other funding mechanisms are in place. This philosophy is at the core of the Conservancy's "Parks in Peril" initiative and will drive the Conservancy's decision to continue support to the management of the Reserve until it can be "graduated" from Conservancy support. Private sector donations will continue to be used to secure maintenance of the Reserve following the termination of the Project and may also be sought to finance the Pacaya-Samiria Trust Fund.

Multilateral/Bilateral Funding. The Conservancy will promote the use of multilateral and bilateral funding to establish a Pacaya-Samiria Trust Fund. As an example, the World Bank is currently considering a proposal for Peru's National Parks Program that would establish an endowment possibly including \$50,000-\$100,000 generated annually for Pacaya-Samiria. The fund would be administered by the Bank's new Global Environment Facility (GEF).

Debt Swaps. The re-insertion of Peru into the global financial community and the sponsorship of a Fall, 1991 debt-swap seminar to be held by the University of Lima and Peru's BCR, are signals that the Peruvian government may be ready to undertake a debt-for-nature swap. A debt swap can provide either short and medium-term funding or be used to establish a trust fund. The Project will promote debt-for-nature swaps to establish funding for the Pacaya-Samiria Reserve.

### 3. Project Inputs

Expenditures to be undertaken in this Project may be divided into five categories: Studies; Technical Assistance and Training; Commodities and Construction; Project Administration; and A.I.D. Management and Oversight. This approach does not make definitive allocations of costs in the first three categories between the intertwined themes of Resources and Incomes, but it does present a clear view of what will happen.

#### a. Studies

##### Income-Related

\*\* Socio-economic Study. Promptly after the EA is approved a socio-economic study will be carried out to analyze the economic status of the communities within the Reserve area; to provide information for the selection of participating communities, to further define the community participatory decision-making process, and to get the current levels of understanding about income-increasing options including the marketing, storage and transport of community products.

**\*\* Specific Income Opportunity Studies.** These studies will identify and analyze specific productive activity opportunities, serving as feasibility studies for the ventures under consideration. Where a lack of sufficient technical information exists to implement a specific income-increasing activity, priority information needs will be identified through work with the local communities on their Community Development Plan. A prioritized list will be drafted by the Project Leadership staff based upon the overall economic importance of the species to be studied and how the resulting information may improve sustainable utilization. Final approval will be received by the Reserve consortium. The Project will then contract the appropriate technician or institution (such as IIAP or UNAP) to carry out the study.

#### **Resource-Related Studies**

**\*\* Land Use and Management Study.** Promptly after the EA is approved the Conservancy will undertake an overall land use and institutional framework study. Adequate information is available to initiate select Project activities, however, the Project will immediately carry out a needs assessment, as part of a land and natural resource use pattern study. This study should answer questions relating to the condition and use of the Project area's natural resources and of the status of the local population. This study will also identify activities of the Project which can be implemented without further study and will also identify key topics for additional use-oriented study. As part of the Land Use and Management Study, the Project will carry out a Rapid Ecological Assessment using the Conservancy's GIS and satellite imagery specialists. The Project will use this information to promote private sector activities as well as the establishment of community-use zones and protected areas -e.g. communal reserves and water supply protection areas (see discussion of Land Use Planning, Section IV.B.2 for greater detail).

**\*\* Specific Resource-Sustaining Studies.** The Project will follow up the results of the above studies with applied research studies, perhaps two or three a year, focussing on conservation and sustainable use of species of current and potential economic importance. Priority needs for these studies will be identified through work with the local communities on their Community Development Plan (see Income-Increasing Activities, Section IV.B.1 for Community Plan description). The Project leadership will prioritize these needs before approval by the Reserve consortium.

**Research Coordination.** A Director of Research will be hired for the first two years of the Project to coordinate the design of and oversee the execution of the land-use, socio-economic, income opportunity and resource-use studies. This Director will also ensure community participation in the setting of study priorities and the use of local expertise.

#### **b. Technical Assistance and Training**

In country training (Annex I, Training Summary) will be offered to community leaders and Project staff in natural resources management; parks design and management; institutional development; community business organization and operation; and production, marketing, and business operations on a small scale.

The following groups are specifically targeted to receive training: 1) the six community extensionists; 2) the 25 Reserve conservationists; and 3) community selected, income-increasing activity leaders from the 18 participating communities (see Annex I).

The Project will provide technical assistance (approximately 124 person/months, Annex I) and Project oversight in natural resource management and local community organization. The Conservancy will bring to bear its conservation and natural resource management experience, techniques and resources to address the problems facing neighboring communities and the management of the Reserve. The Project will draw upon the expertise of the more than 1,000 employees of the Conservancy from its international, national, regional and state offices. Experts from some of the Conservancy's 30 Latin American partner organizations will also be used for short-term assignments.

The sources of training will be Conservancy staff, the Conservancy's Latin America NGO partnership network (e.g. BIOMA, ANCON, WWF, CARE, SPDA), and outside experts as needed (Annex I). Where appropriate, local organizations such as IIAP and UNAP will be involved for carrying out training programs and providing technical assistance. The Conservancy's in-country advisor will also provide technical assistance in activity planning, long-term funding, biodiversity protection, and Reserve management activities.

The Project will produce publications for dissemination via print and radio covering conservation problems and solutions, the rewards of management for sustained yield, and the income opportunities being identified by the Project. In addition, the Project will produce policy analyses, extension, and technical publications for use by Project staff in the dissemination of information to individuals and communities. The training program of the Reserve conservationists will include the preparation of materials, such as a conservationist Manual.

#### c. Commodities and Construction

Construction and commodities placed within the Reserve will all be Resource-related, while those outside the Reserve will be approximately equally divided between Resource-related and Incomes-related (see Organizational Chart below, Section IV.B.4.c.). Construction within the Reserve will include conservation Control Posts and administrative facilities, plus the requisite office equipment and supplies, and operating equipment including radios, vehicles and boats, and uniforms and field equipment. Construction and commodities placed outside the Reserve will include Community Centers to be used both for conservation and income-generating activities, as well as productive facilities for specific ventures, e.g. piers, fishing equipment, packing sheds, and the like. The Community Centers will be built two per year in years one, two and three of the Project (see Annex D for planned locations). Where possible, existing facilities such as the Jenero Herrera Research Station or existing control posts will be used by the Project.

#### **d. Procurement Plan**

The Conservancy and FPCN will undertake all local and offshore procurement for the Project. Expenditures made with A.I.D. funds will comply to U.S. Government procurement regulations as stipulated in the Grant Agreement, including the "Buy America" regulations. The Conservancy's Latin America Division staff in Rosslyn, Virginia will assist the Project in purchasing vehicles, equipment, and/or materials that are either not available locally or are significantly less expensive to obtain in the U.S. In Peru, FPCN will assist Project staff to procure materials and equipment, as needed. A summary LOP procurement list and a detailed procurement list of vehicles, equipment, and other materials to be purchased in F.Y.1992 will be provided as part of the Conservancy's F.Y.1992 Annual Operating Plan (see Project Administration below, Section IV.B.4..

In kind grants to communities are considered the principle method to support income-increasing activities undertaken by the Project. The plan is to have Project staff carry out the procurement required by these activities.

Local cost financing (LCF) is authorized for the Project, consistent with AID's Buy America Policy ("ABAP") set forth in Cable 90 State 410442 and the revised HB1B, Chapter 18 as follows:

(a) For a grant with a registered U.S. NGO, LCF is authorized consistent with the HB13 Standard Provisions that govern.

(b) Providers of technical assistance whose services are procured under the Project shall be of U.S. nationality except as waived. Per LCF guidance, other professional service contracts up to US\$ 250,000 in value, such as for audit, evaluation, or technical assistance from Peruvian firms, are exempt from the ABAP up to this limit, and no further waiver is necessary.

(c) All local financed procurement must be covered by source/origin waivers as set forth in Chapter 5 of AID HB1B, with the following exception:

(1) Commodities of U.S. origin, which are otherwise eligible for financing, if the value of the transaction is estimated not to exceed \$100,000 (exclusive of transportation costs).

(2) Commodities of geographic code 935 origin if the value of the transaction does not exceed \$5,000.

(3) The following commodities and services which are available only locally:

(a) Utilities including fuel for heating and cooking, waste disposal and trash collection;

- (b) Communications –telephone, telex, fax, postal and courier services;**
- (c) Rental costs for housing and office space;**
- (d) Petroleum, oils and lubricants for operating vehicles and equipment;**
- (e) Newspapers, periodicals and books published in the cooperating country;**
- (f) other commodities and services (and related expenses) that, by their nature or as a practical matter, can only be acquired, performed, or incurred in the cooperating country, e.g., vehicle maintenance, hotel accommodations, etc.**

**e. Construction Plan**

Regarding the design, construction and supervision of construction, the Project will use the services of an Iquitos-based architect to design building plans and supervise construction. It is expected that the Project will use local contractors from the towns of Nauta and Requena, or from Iquitos. These contractors will use locally available and appropriate materials and local labor to construct the facilities. A sample design of a community center and a control post are provided in Annex E.

**4. Implementation and Project Administration**

A direct A.I.D. Handbook 13 grant will be provided under the Project to The Nature Conservancy. The Conservancy will sign a cooperative agreement-type document with FPCN (see Annex J) that details FPCN's implementation, reporting, monitoring responsibilities for the Project.

In October, at the start of each fiscal year of the Project the Conservancy and FPCN Project staff will prepare an Annual Operating Plan to outline specific Project activities to be carried out during that year. The F.Y.1992 Annual Plan will include a summary LOP procurement list, a detailed procurement list for F.Y.1992, and job descriptions for key staff positions. Each year, the Conservancy will review these plans with the USAID/Peru Project Manager as part of A.I.D.'s oversight activities.

The following describes the Conservancy's and FPCN's plans to supervise the Project, ensure sufficient contact with and reporting to A.I.D., and maintaining overall responsibility for Project progress and control of funds.

**a. Conservancy**

As the grantee, The Nature Conservancy will have primary responsibility for implementing the Project. The Conservancy will hire an In-Country Advisor to be stationed in Peru. The In-Country Advisor will manage the Project in cooperation with FPCN's Project Director, and will be responsible for the development of annual operating plans, the arrangements for services from the Conservancy's NGO network, and control of funds and relationships with A.I.D.

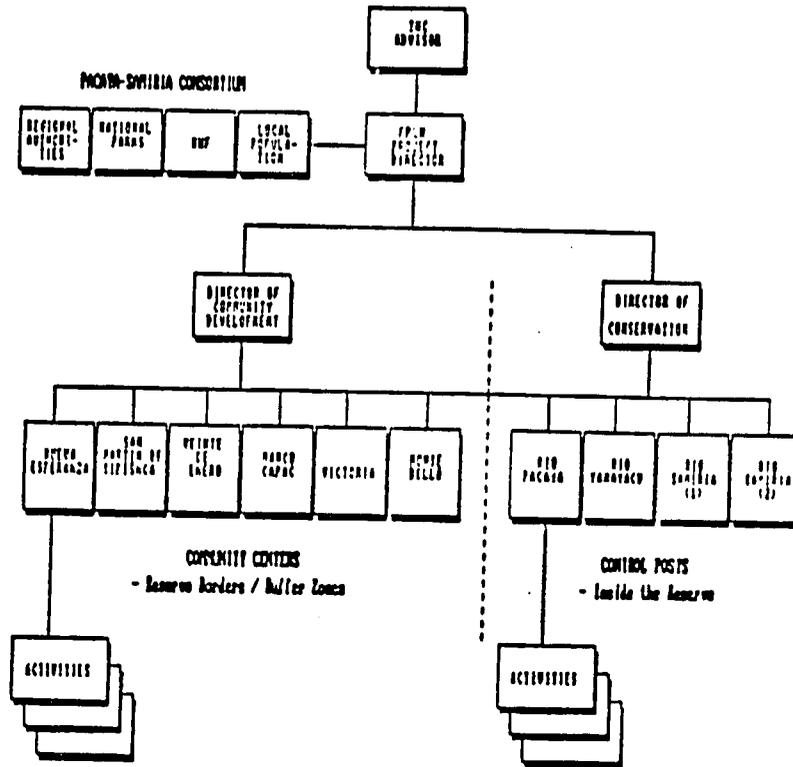
**b. Peruvian Foundation for the Conservation of Nature (FPCN)**

The Directors of Community Development, Conservation, and Research will be supervised by the FPCN Project Director. The Project Director will oversee all FPCN implemented activities and will maintain coordination with the central administration of Pacaya-Samiria, the Reserve's Board of Directors, and the Conservancy (for detail regarding field implementation, see the Income-Increasing Activities, Section IV.B.1, and Resource-Sustaining Activities, Section IV.B.2).

Coordination with National Parks of Peru and the Regional Authorities. The Conservancy and FPCN will coordinate Project activities with those of the National Parks Program office which has authority for Reserve management. In addition, the Project will coordinate with the regional authorities, the World Wildlife Fund, and other local institutions, as appropriate. Currently, an oversight consortium is being considered to provide coordination between the primary institutions to be involved. The National Parks, regional authorities, WWF, FPCN/Conservancy, and a local community representative are probable members of this consortium.

To illustrate the Government of Peru's interest in working with FPCN in the Project, FPCN has provided a copy of its most recent agreement with Peru's national park service, National Parks of Peru (PNP), to work cooperatively in the management of the Peru's national parks and reserves. In addition, the letter of intention regarding specific Project activities in Pacaya-Samiria has been provided, as well (the agreement and letter of intention are attached in Annex K).

The following is an organizational chart which illustrates the planned structure for the implementation of the Project in the field:



d. Coordination with Other Entities in Pacaya-Samiria

Throughout the Project, the Conservancy will coordinate with other organizations and agencies working within and around the Reserve. For example, the World Wildlife Fund is currently developing a Pacaya-Samiria resource conservation and community development project of its own. Based upon four years of cooperative work in Peru, the Conservancy and World Wildlife Fund have been meeting regularly to ensure that the two projects are complementary and that collaboration remains high.

The Conservancy is also developing a cooperative relationship and exchanging information with CARE international in Peru. CARE is currently developing a 5-year, \$3.6 million project to target fishing, agroforestry and marketing improvements in 25 communities in the Department of Loreto. One of CARE's sites will be within two hours by boat from the Reserve. Cooperative relationships will be maintained with these and other organizations throughout the Project.

The following is an implementation schematic (see Annex H for an activity-by-activity implementation plan):

Implementation Schematic

Project Activity	FY1992	FY1993	FY1994	FY1995
Environmental Assessment	XX			
Annual Operating Plan Development	XX	XX	XX	XX
Socio-Economic Study	XXXXXXXXXX			
Land Use Management	XXXXXXXXXX	XXXX		
Income-Increasing Studies		XXX XXX XXX XXX XXX XXX XXX XXX XXX		
Resource-Sustaining Studies		XXX XXX XXX XXX XXX XXX XXX XXX XXX		
Hire Proj. Leaders	XXX			
Hire Comm. Extensionists	XXXXX			
Train Comm. Extensionists	XXXXXXXXXX			
Hire Reserve Cons.(15)	XXXXX			
Train Reserve Cons. (15)	XXXXXXXXXX			
Hire Reserve Cons.(10)		XXXX		
Train Reserve Cons. (10)		XXXXXXXXXX		
Construct Comm. Centers (2)	XXXXXX			
Equip. Comm. Centers		XXXXXX		
Construct Comm. Centers (2)			XXXXXX	
Equip. Comm. Centers			XXXXXX	
Construct Comm. Centers (2)				XXXXXX
Equip. Comm. Centers				XXXXXX
Develop Community Plans (6)		XXXX		
Implement Community Plans		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		
Develop Community Plans (6)			XXXX	
Implement Community Plans			XXXXXXXXXXXXXXXXXXXXXXXXXXXX	
Develop Community Plans (6)				XXXX
Implement Community Plans				XXXXXXXXXXXX
Prepare Income Oppr. Mat/Radio Prog:		XX	XX	XX
Dist. Income Opport. Materials			XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	
Construct/imp. Control Posts	XXXXXX	XXXXXX		
Equip. Control Posts	XXXXXX	XXXXXX		
Reserve Management/Patrol		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		
Prepare Resource Use Materials		XX	XX	XX
Dist. Resource Use Materials			XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	
Procurement		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		
Provide Technical Assistance		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		
Trimester Reports	X	X	X	X
Annual Audits		XX	XX	XX
Financial Review		X	X	X
Evaluations			XX	XXX

## **5. Costs**

The total cost of this four-year Project is \$5,000,000 of which up to \$3,600,000 will be contributed by A.I.D. through a grant to The Nature Conservancy. The Conservancy will match this grant with \$1,400,000 in private donations specifically for the activities listed below. All of the Conservancy's contribution will be in cash, with the exception of some in-kind support under Project Administration. The Project has two main focuses of which income-increasing activities will receive 45% and resource-sustaining activities will receive 55%.

The Nature Conservancy will work throughout the life of the Project to establish long-term financing mechanisms, such as debt-for-nature swaps and private donations, to cover the recurrent costs of operating the Pacaya-Samiria National Reserve (refer to the Resource-Sustaining Activities, Section IV.B.2, for a description of the pertinent recurrent cost strategy).

Other potential mechanisms may also be used, but cannot be counted upon at this time. These alternative sources might include tourist user fees and Government of Peru support. It is expected that these costs will run approximately \$200,000 per year.

Regarding the maintenance of the Income-Increasing Activities, the Project will focus on the necessity for communities to take annual working capital out of income generated and save it for the next year's capital expenses (this will be covered in the Project supported training program with community activity leaders). This working capital will be needed in some instances by the local communities and individuals to maintain their specific income activities. The magnitude of working capital needed by each individual is expected to be small in relation to the activity and in line with the amounts of capital that these individuals are handling at the present time. One of the criteria used for the selection of the activities is a low ratio of working capital investment vs. return.

### **Magnitude of Expected Recurrent Costs**

<b><u>Item</u></b>	<b><u>Annual Cost</u></b>
Personnel	\$ 110,000
Office Supplies, Printing	20,000
Travel, Food, Gas	20,000
Maintenance, Repairs, etc..	20,000
Uniforms, Field Equipment	5,000
Administration	<u>25,000</u>
<b>Total</b>	<b>200,000</b>

## 6. Financial Plan

The total cost of the A.I.D. Employment and Natural Resource Sustainability Project is estimated to be US\$ 5,000,000. Though foreign exchange (FX) and local currency (L.C.) costs can not yet be clearly defined, it is estimated that 60% foreign exchange 40% local currency cost will likely be the expenditures of the project.

### Summary of Total Project Costs

By Funding Source and Foreign Exchange (FX)  
and Local Currency Costs (L.C.)

Funding Source	FX	%	L.C.	%	Total	%
A.I.D.	2,160	60	1,440	40	3,600	100
T.N.C.	840	60	560	40	1,400	100

### Financial Summary (US\$ '000)

	USAID			T.N.C.			
	FX	LC		FX	LC		
1. Environmental Assessment	18	12	\$ 30	-	-	\$ 0	\$ 30
2. Studies							\$ 710
Incomes-related	162	108	\$270	6	4	\$ 10	
Resource-related	213	142	\$355	45	30	\$ 75	
3. Training & TA							\$1,912
Incomes-related	351	328	\$679	40	26	\$ 66	
Resource-related	380	253	\$633	320	214	\$534	
4. Commodities & Construction							\$1,218
Incomes-related	410	273	\$683	18	12	\$ 30	
Resource-related	138	92	\$230	165	110	\$275	
5. Project Administration							\$1,015
FPCN	234	156	\$390	66	44	\$110	
Conservancy	60	40	\$100	180	120	\$300	
Audits	115	0	\$115	0	0	\$ 0	
6. A.I.D. Management & Oversight							\$ 115
Financial Review	25	0	\$ 25	0	0	\$ 0	
Evaluations	54	36	\$ 90	0	0	\$ 0	
	2,160	1,440	\$3,600	840	560	\$1,400	
<b>Project Total:</b>							<b>\$5,000</b>

### **C. Anticipated Results/ End of Project Status**

At the conclusion of this four-year Project the Outputs will include, on the Resource-related side: the Land Use and Management Study; the Rapid Ecological Assessment; a series of Specific Resource Opportunity Studies; more than 25 technical and educational publications and publicity exercises on environmental and income-generating topics; and trained and capable local community groups and a Reserve staff able to continue the tasks of resource conservation and Reserve management. Outputs on the Incomes-related side will include the comprehensive Socio-economic Survey; a series of Specific Income Opportunity Studies; improved practices in resource production, harvesting, processing, and marketing; and more than 20 income-generating projects attempted or under active development.

Perhaps more significant will be the continuing effects of the Project, which may be described as four EOPS: (1) economically important species prospering, with yields trending higher; (2) Reserve management maintained at an effective level; (3) expanding community awareness of the Park-People balance, and of the feasibility and desirability of sustained yield practices; and (4) increasing and widespread income opportunities, with perhaps 5,000 formal and informal workers in and near the Reserve seeing income gains - cash and kind - of 10%-20% annually, and perhaps another 100,000 people in the extended Reserve area indirectly benefitted.

## **V. ROLE OF AID**

### **A. Management**

The Office of Food and Agriculture (OFA) will provide a Project Officer to monitor the project activities. The primary role of the USAID Project Officer will be to ensure adherence to the annual work plan and exercise A.I.D.'s responsibility for proper use of U.S.G. funds. It is expected that management and oversight by the USAID's Officer will not be a fulltime activity, the experience and record of the Nature Conservancy indicate their ability to assume a major implementation role and contractual relationship with FPCN.

In addition, the initial environmental assessment will require direct participation of the Mission Environmental Officer. Subsequent environmental assessment activities will also require this Officer's direct involvement.

Procurement responsibilities will largely be the responsibility of the Grantee and defined in the annual work plans. The Mission will review and approve each Annual Work Plan and modifications to any approved Work Plan must receive Mission approval.

A review of project management/activities will be conducted semi-annually, during the Semi-Annual Reviews (SAR). Benchmarks developed during the elaboration of the Annual Work Plan will be used for this purpose.

**B. Methods of Implementation and Financing**

The methods of implementation and financing for each major activity of the Project are summarized as follows:

<u>PROJECT ELEMENTS</u>	<u>METHOD OF IMPLEMENTATION</u>	<u>METHOD OF FINANCING</u>	<u>AMOUNT</u>
<u>Project Costs- TNC</u>			
<u>Program</u>			
Studies	PIL	Reimbursement	655,000
T/A and Training	•	•	1,312,000
Commodities/Construction	•	•	913,000
<u>Administration</u>			
Administration/Coordination	•	•	490,000
Audits	•	•	<u>115,000</u>
Subtotal			3,485,000
Financial Review	PIO/T	Direct Payment	25,000
Evaluations	•	•	90,000
			=====
TOTAL			\$3,600,000

**C. Oversight**

The scope of AID oversight will include the management tasks described above; the review and certification of payment requests; the review by USAID/Peru of Semi-annual Progress Reports from the Conservancy; periodic financial and compliance audits; formal Evaluations, one at mid-point and one near conclusion to include review of environmental impacts; and, perhaps most importantly, constant informal contact with the Conservancy, and as many site inspections and contacts with players on the ground as competing Mission priorities will allow.

**D. Reporting**

The grantee will provide A.I.D. through its monthly reimbursement requests (the Conservancy may choose to request reimbursement quarterly), the data required for tracking the implementation of each approved annual work plan. Reports will also be provided the 15th day of each month preceding the calendar quarter ending, showing the accrued expenditures projected

for that quarter ending. Accruals being defined as goods and services received whether or not payment has been made.

#### **E. Audit and Evaluation Plan**

The Conservancy staff will provide continuous monitoring and periodic internal auditing of funds administered. Any inappropriate use of funds could result in the immediate cancellation of support to a particular recipient, whether local community organization, collaborator or contractor.

The Conservancy is budgeting US\$28,000 per year for independent, USAID-approved A133 audits of Project expenditures. Audits will also involve field-level spot checks to verify output indicators in selected Project areas.

USAID/Peru will contract an interim evaluation to occur between July 1 and August 31, 1993. The evaluation criteria, or benchmarks against which progress can be measured, will be defined by the Conservancy and approved by USAID/Peru as part of the Annual Operating Plans at the start of each year of the Project. Benchmarks will be established for each major component. In order to provide a basis for these evaluations, information will be collected on a periodic basis during Project implementation to gauge changes in these indicators through the Conservancy's monitoring activities.

The external evaluations will be financed with A.I.D. funds budgeted under the Project and carried out by A.I.D. staff and/or independently contracted specialists in collaboration as required with Project staff, and local government and NGO collaborators. The Conservancy is budgeting \$40,000 and \$50,000 for the mid-term and end-of-project evaluation technical assistance to be directly managed by the USAID Project Officer.

The mid-term evaluation will be designed to: 1) measure progress towards the achievement of specific income-increasing and resource-sustaining objectives or benchmarks; 2) identify problems in execution and propose remedial actions; 3) recommend changes in the focus of activities and the allocation of resources among the various components; 4) evaluate the Project management capability; 5) measure the success of the integration of the Project components; 6) evaluate compliance with the environmental assessment monitoring requirements; and 7) the degree to which local, regional, and national organizations and agencies are collaborating in Project activities, and the extent and sustainability of local community participation in implementation.

The final evaluation will be implemented at the end of year four of the Project to determine its overall success in achieving design objectives. The evaluation will evaluate the success of the income-increasing and resource-sustaining activities and define the "lessons learned" in integrating the management of the Reserve with sustainable income generating activities identified and implemented at the community level.

## **VI. SUMMARY FEASIBILITY ANALYSES**

### **A. Technical Analysis Summary**

The technical analysis for the Project concludes that the Project is technically feasible. The Project will build on existing technologies, especially those used in fisheries, agroforestry, and marketing. It will enhance these technologies by increasing know-how, adding new information, and providing equipment. The Project will build institutions and provide capital, thereby overcoming social, economic, and administrative obstacles to improving technology.

Both the Nature Conservancy and FPCN have a long track record of working in Peruvian parks and protected areas to train personnel and build community support for conservation. The two organizations have worked in the Yanachaga National Park and in Pampas del Heath National Sanctuary, for example, to provide training, equipment, and infrastructure. This experience will come into play in Pacaya-Samiria under this Project which will increase the corps of guards and administrators for the Reserve and will equip and train them. These efforts inside the Reserve will secure conservation of the natural resources on which the income generating components of the Project depend.

#### **1. Analysis of Opportunities for Income-Increasing Activity**

Opportunities for sustainable economic activity in the Project area should exhibit two fundamental characteristics. First, each should draw on an existing technology and intervene to modify that technology so as to make it more productive. Second, each opportunity should arise out of the express choice of the community which will develop that opportunity.

##### **a. Aquatic Resources**

For many communities in the Project area, fishing is the most important economic activity providing cash incomes. As employed in the Project, the term "fishing" includes the capture, processing, sale, and consumption of food fish plus capture and marketing of such resources as turtles and turtle eggs, caiman and their eggs, and aquarium fish.

Fishing, because of its direct connection to conservation and management of the Reserve, and because of its economic significance, will merit concentrated effort through the Project. From a technical perspective, this effort should focus on fish processing, rearing and keeping fish in captivity, and transport and marketing facilities.

Increasing economic benefit from food fish will certainly a major focus of the Project. The people in the Project area consume fish as their major source of protein. They eat fish all year round, though the type of fish and the quantity consumed vary with the seasons.

Some local communities use floating fish ponds built on submerged rafts which are mobile and permit both movement of the fish catch down river and the addition and removal of fish as they are caught or consumed. These floating ponds are made of rustic materials and appear to present an opportunity for technical improvement. In all likelihood they can be made more durable and their capacity could be increased.

Fish salting and drying technology has evolved to meet the conditions that prevail in the Project area. It seems to work well but it also seems to offer great scope for improvement. The Project will introduce modifications such as: better controlled salting and drying, passive solar driers, more effective drying racks, smoking, etc. Technological modifications will aim to decrease loss and waste in the drying process, prolong usable life of dried, salted fish, and improve quality and flavor.

At the present time, people in the Project area do not rear fish. In this regard, the Project will investigate the research that IIAP has carried out with bocachico and gamitana in controlled environments. The IIAP experience may be appropriate to transfer to local communities. Parallel opportunities with other species may also present themselves.

Aquatic resources other than fish. The eggs and meat of the taricaya turtle are available in the market at Iquitos and constitute a favored food throughout the Project area. Research in Pacaya-Samiria Reserve has resulted in perfection of techniques for rearing taricaya from eggs captured in the wild. This research appears ripe to transfer to local communities. The Project will explore the opportunity of disseminating such turtle management technology. The Project will also support continuing research on the endangered "charapa" turtle management but it must focus most of its effort with this species on conservation.

#### b. Agriculture/Agroforestry

A great deal can be done in the Project area to intensify and technify agricultural and livestock production. Measures could include genetic improvement of planting and breeding stock, integrated pest management, improvement of animal health, fertilizing, and small-scale mechanization. This Project will not concentrate on agriculture or livestock, however, as these have little connection with the renewable natural resources that flow from the Pacaya-Samiria National Reserve.

As used in the Technical Analysis, the term "agroforestry" refers to extraction of wild plant products from the forest and also to harvest of fruits and other products from trees planted in household orchards. This report does not use the term in the sense of integrated management of annual crops, permanent crops, tree crops, and timber trees. Agroforestry in that more comprehensive sense would be possible in the Project area but achieving it would represent a sharp departure from existing practices. It would also turn the Project focus away from the connection between renewable natural resources inside and outside Pacaya-Samiria Reserve.

People in the Project area keep fruit trees near their homes. They also harvest fruits and other products from wild trees. Wild palms are notable for yielding fruits - especially aguaje and unguravi which are sold as well consumed directly - thatch, flooring, and palm heart, another commercial product. Because palms have good economic potential and because many of them grow in swamps which have no other productive capacity, they represent a promising avenue of development for the Project.

Palm heart. Palm heart has been produced in the Project area for a long time, mostly from the species known locally as huasayi. The Project will work with this and other species native to the area but less commonly used for palm heart. The Project will also investigate the transport and marketing chain for palm heart, from the forest to the factory, to improve the system at points where efficiency and quality can be improved.

Palm fruits. Many palms produce edible fruits and many of these are eaten locally and also sold in the towns. Two edible palm fruits stand out - aguaje and unguravi. These two species are common in the wild and merit attention to determine how to improve harvesting techniques, increase yields, and maintain product quality during transport and storage.

### c. Marketing

Marketing infrastructure in the Project area tends to be primitive and incomplete. At most towns, even at many points along the shore in Iquitos, products are loaded on and off boats directly from the river bank. There are no wharfs or landings free of mud and dirt. Usually there are no structures in which to protect products from rain or sun.

The market at Requena will be improved by installing a floating wharf with a ramp to the market building. Another possibility is to build more and better storage structures where products would be secure and protected while awaiting shipment and distribution.

One obvious requirement for improving marketing of fresh fish is ice to keep the fish from decomposing. Ice is available in the Project area but most of it comes by boat from Iquitos, an expensive, inefficient way to provide it. The Project will immediately investigate building small ice-making facilities at strategic points in the Project area. If the determination is positive that the Project should facilitate the building of these plants, funding alternatives will be explored, to possibly include Project support.

People in the Project area would benefit from more, and more accurate, information about market conditions. If they knew demand levels and daily prices they could plan their operations better and take better advantage of favorable prices. In response, the Project will set up a marketing information network that is easy to operate and simple to use.

Incomes can be increased to local producers by working with them to improve their marketing skills. In part, this would relate to technical skills like presenting products in more appealing form and better condition. In part it would relate to managerial skills like

planning when to harvest based on selling prices or choosing between selling fish fresh or drying them for sale later on based on knowledge of the total fish catch that season and an estimate of future demand. Marketing skills tie closely to market information. The Project will develop the two concomitantly, always in consultation with local producers and traders.

## **2. Analysis of Technologies for Resource-Sustaining Activities**

Conservation in Pacaya-Samiria has the obvious beneficial effect of sustaining the fisheries that provide economic support to the population of the Project area. The Reserve also serves to conserve biological diversity generally, thereby retaining a storehouse of species which could have future economic importance.

Current conservation and resource-sustaining activities in the Project area take place inside the Pacaya-Samiria National Reserve, as opposed to outside the Reserve. This effort needs to be improved but is partially effective. Its limited effectiveness is illustrative by the fact that inside the Reserve the forest is noticeably less disturbed than outside and wildlife is abundant and easy to see.

In addition to the protection effort, there is some active management of resources inside the Reserve, notably the management of turtles, caiman and monkeys. Currently, these efforts operate at a small scale that can be expanded. This experience also offers possibilities for application by local communities outside the Reserve.

The past and current efforts in Pacaya-Samiria by WWF provide a good basis from which the this Project can launch its activities. Virtually all the activities anticipated under the Project are contemplated in the management plan for the Reserve or are compatible with it. Project actions in protection infrastructure and personnel directly expand current efforts underway in the Reserve. Production activities outside the Reserve are contemplated in the plan but few have materialized so far. The Project will add this dimension to Reserve management and planning.

## **3. Analysis of Technical Feasibility of Performing Land Use and Conservation Planning**

Land use and Management Study. The technical capability exists in Peru to carry out this Study. After studying existing data on soils and on land use capability, this Project will apply the analytical methodology to determine land use capability in the Project area.

The findings on land use capability will most probably reinforce the underlying concept of the Project: that the best opportunities for development in the Project area lie in natural resources management; and that conservation inside Pacaya-Samiria Reserve provides essential support for maintaining the natural resource base.

**Natural Resources Studies.** Some information that has a direct bearing on natural resources in the Project area currently exists. Specific inventories for the Pacaya-Samiria Reserve and for other parts of the Project area have not been made, however. It is important to perform such inventories. But it is also important to target the inventories on a handful of species and resources selected either for their intrinsic economic value, e.g. paiche, or for their value as indicators of ecological conditions, e.g. aguaje palm. Several species will be important from both points of view.

#### **4. Applicable Capabilities and Peruvian Experiences of FPCN and TNC**

**Community development and marketing following the model of the Central Selva Project.** The USAID/Peru Central Selva Natural Resources Management Project provides several experiences that will provide useful lessons to the Project under analysis. Following the termination of A.I.D. field support to the Central Selva Project 1988, FPCN began work with the Yanasha Forestry Cooperative. At a conceptual level this Project and the Central Selva Project overlap a great deal, making the Central Selva experience highly relevant to this Project. FPCN has gained valuable experience regarding local community organization and decision-making processes, as well as, experience with the production and marketing problems faced by rural disadvantaged communities. In addition, this Project will follow a strategy very similar to that of Central Selva in that it revolves around improved marketing of natural resource products through local communities (see Annex L for community development and income generating experiences of FPCN).

**Protected areas management following the model of the Yanachaga Project.** The Nature Conservancy has been working in the Yanachaga-Chemillen National Park, with financial support from USAID/Peru, since 1987. In Yanachaga, TNC has financed infrastructure and equipment and has trained administrative and field personnel. Through its experience in Yanachaga, TNC has become thoroughly familiar with implementing field conservation in the Peruvian milieu. It knows what kinds of people, gear, time, and money it takes to attain adequate protection of an area that contains valuable natural resources and that also has inestimable value for conservation. Much of what TNC has learned at Yanachaga will be applicable, directly or with minor modification, to Pacaya-Samiria and the Project area.

**The experiences of FPCN in Manu and Pampas del Heath.** In its projects in Manu National Park and in Pampas del Heath National Sanctuary, both in environments similar to that of the Project area, FPCN has gained a wealth of experience in dealing with local communities and in involving these communities in managing the protected areas they live near. This Project must work closely with the local communities near Pacaya-Samiria in order to succeed. As principal implementing organization for the Project, FPCN can put its experience to good use. FPCN knows how to interact with community leaders and citizens; it knows how to explain conservation to rural people in ways that they can understand and see the benefits they obtain from conservation; It knows how to employ local people in activities that provide them income while also supporting conservation.

## Income-Increasing Activities Cost/Benefit Analysis

### Three Sample Activities

The following cost/benefit analysis is based upon statistics and calculations from the economic analysis. It should be noted that the Project cost per beneficiary below in Column 1 does not consider indirect costs of the activity (i.e. technical assistance) nor matching support to be required from communities.

<u>Activity</u>	<u>Potential Pop.</u>	<u>1. Project Cost Per Benef.</u>	<u>2. Annual Participant Working Cap.</u>	<u>3. Yearly Increase Income</u>
Improve Salting and Improve Drying Tech.	19,950	\$ 104	\$ 47	\$ 102
Improve Fishing Equip. Nets & Boat Motors (to be studied further)	19,950	\$ 86		\$ 97
Improve Agroforestry Techniques (income increase = \$214/beneficiary- 1st year) (income increase = \$278/beneficiary after 2nd yr)	39,890	\$ 257	\$ 26	\$ 278

- 
1. Project investment capital needed per beneficiary.
  2. Annual working capital needed by beneficiary to maintain yearly income increase.
  3. Sustainable annual income increase per beneficiary. Requires annual working capital reinvestment as noted.

\*This estimate does not include the amount the fisherman needs to save each year to ensure funds available to secure capacity to purchase new fishing equipment when Project purchased gear needs replacement.

## **B. Economic Analysis Summary**

### **1. Introduction**

The PSNR is the principal ongoing source of food and monetary income for the population living in the immediate area of this protected territory. Of a total estimate of gross value of production in the area, the fishing industry accounts for 21%, agriculture for 38%, timber for 10%, and commerce for 31% (see Table in Annex M, Population and Economic Product).

The goal of the ENRS Project is to provide a rapid, sustainable, private sector-led economic reactivation that generates foreign exchange, increases incomes, and improves productivity while preserving natural resources in the PSNR area. To this end, it seeks to achieve (1) stabilization or increases in economically-useful natural resource populations, and (2) increases in per-capita incomes in the Reserve area. Increased exports, incomes, and employment creation will not be achieved solely by Project support but will also depend on investments by the private sector.

### **2. Scope and Methodology**

An economic and financial study was contracted by the Mission to measure the economic impact of the Project in the PSNR area. The macroeconomic analysis could not be carried out owing to the lack of reliable and precise data of the region's economy. Thus, TNC will complete and define quantitative information about the economy in the PSNR area and its surroundings, in order to obtain consistent results of the Project's macroeconomic impact.

Data gathered by the macroeconomic analysis will obtain project evaluation indicators in global terms, such as: (a) total investment; (b) total earnings; (c) economic and opportunity costs; (d) economic and social discount rates; (e) present value; (f) internal rate of return; and (g) cost-benefit ratios. It will also aid in estimating the direct and indirect macroeconomic impacts of the Project, obtaining the following information: (a) direct and indirect employment generation; (b) value added of labor; (c) increased per-capita income; (d) net foreign exchange earnings; and (e) quantitative indicator of increased natural resources availability. At the start of the Project the socio-economic study will collect and analyse these data in order to direct the income increasing activities of the Project.

The microeconomic analysis evaluated activities that would create employment and generate foreign exchange, while preserving natural resources. It identified three areas that indicated high rates of return.

### **3. Microeconomic Analysis**

The macroeconomic analysis focused on the following activities: (1) expansion of fish capture through renewal of equipment; (2) agroforestry in existing agricultural land or

second-growth forests; and (3) improvements in dry-salt processing for fish preservation. The assumption and stream projection of these projects, as well as detailed description of the project to improve dry salt procesing for fish preservation are presented in Annex M. Investment requirements, resulting increased total incomes, employment creation, additional production and other components were estimated to evaluate individual projects and obtain economic and financial indicators. Projects were ranked according to economic and social criteria.

Individual projects were evaluated at market prices, using a 10% year discount rate. Shadow prices, which reflect the economy's relative resource scarcity, could not be calculated owing to the lack of reliable data.

a. Net present value: The study calculated the net present values of expected increased incomes and of total financial requirements. Table 1 shows the results; the net present value of net increased incomes resulting from the subtraction of expected increased incomes minus total financial requirements, was approximately \$2.7 million for project A, \$4.5 million for project B, and \$11.2 million for project C. These indicators show that the three activities are profitable as their net present values exceeded 0 by far.

b. Benefit-cost ratio: The projects were estimated to yield high benefit-cost ratios (see Table 1); the benefit-cost ratio was 11 for project A, 5 for project B, and 14 for project C.

#### Microeconomic Analysis Results

	<u>Project A</u>	<u>Project B</u>	<u>Project C</u>
Net Present Value (\$):			
a. Financial requirements	276,386	1'009,532	883,109
b. Increased incomes	2'946,985	5'482,675	12'101,871
c. Net increased incomes = (a.) - (b.)	2'670,599	4'473,143	11'218,762
Benefit/Cost ratio		5	14
Participants	1,140	1,140	1,710
Total Beneficiaries	7,979	7,979	11,968
Increase in production per participant	25%	143%	35%

## C. Financial Analysis Summary

### 1. Introduction

The PSNR is the principal ongoing source of food and monetary income for the population living in the immediate area of this protected territory. Inhabitants inside and around the Pacaya-Samiria Reserve are a unique social group, known as "comunidades ribereñas". The area has a wide diversity of waterlife which is either caught or harvested by local populations, and consumed or sold through local markets.

### 2. Aquatic Resources

In the zone, fishing at its peak season is four to five times more profitable than agriculture. Illegal fishing of paiche and the poor state of agriculture account for most of this dramatic difference.

Pacaya-Samiria National Reserve is a natural reproduction area for fish during the dry season, when waters recede into the inner lagoons. During the rainy season increased levels of water allow for dispersion of fish in currents and rivers, giving rise to the bountiful "mijano" fishery season.

Fishing is done almost entirely by individuals in this region, as opposed to community effort. Although nearly the entire population of the Reserve area undertakes fishing during at least part of the year, there is little organizational efforts, with few exceptions. Requena is an exception with 176 fishermen belonging to the Fishermen's Association of Requena Province, of whom 50% depend on fishing as their primary source of food and income.

Statistics and Economics Based on the per-capita consumption of fish in the region (average of 0.15 Kg/day) and the number of families in the immediate area of influence of the Reserve (about 12,000 families with roughly eight members each or 100,000 people) the total annual consumption of fish can be estimated at 5,260 MT.

Paiche (Arapaima gigas) is the most valuable species; its price per kilo is about \$2.00 in urban markets. (Paiche, however, accounts for 10% to 15% of value marketed, but is currently illegal to catch under a government imposed two-year moratorium to allow decreasing populations to recover). Approximately 150 species are officially recognized in this area, 11 of them accounting for 77% of all the fish caught. The "boquichico" (Prochilodus nigricans agassiz) accounts for 22% of the total catch.

Estimates of value of catch for consumption is based on the index price of I/m.0.50 per kilo (US\$0.97), which results in about US\$5.10 million per year (US\$0.97 x 5'260,000 K). The population of the Leticia, Yurimaguas, Contamana, Pucallpa and Cerro de Pasco is about 600,000; thus, potential demand for fish is about 32,850 metric tons, and its

market value is US\$31.9 million (600,000 inhabitants x 0.15 kilos per day X US\$0.97 x 365 days/year).

No accurate count estimate has been made of the biomass of fish living in the Reserve. The Science Academy of USSR in the 70's estimated that the Reserve holds 200-300,000 metric tons of fish. Using this figure, current levels of fishing would be estimated at 5-10% of biomass taken each year. However, in 1988, IIAP estimated that approximately 13% of biomass is annually harvested. If these figures are correct, it may be possible to increase the amount of fish harvested for most species. These figures need to be verified prior to undertaking activities which increase harvests.

Target Population. In some towns of the region simple fishing practices account for about 70% of the per-capita income, agriculture and others being the remaining 30%, as the Economic Analysis found through interviews in the area (one supposes from this that the promotion of higher technical skills and equipment appropriate to area and conditions would cause a higher fish catch and, hence, higher income for the area). Technical assistance will target these communities to help them improve their fishing incomes, through the improved commercialization of their activities.

Technical Improvements. Technical improvements could be made in the processes of handling, conserving and transporting fish. At present, almost 60% of the fish is consumed fresh, while 40% is conserved by sun-drying and salted. Losses are roughly estimated at 15-20% of the total catch occurring from the time the fish are caught to the time that they reach the market. Fresh fish are kept for several hours without refrigeration in the small fishing boats, until it is transferred to merchant boats coming from Iquitos or Pucallpa, normally carrying ice and boxes to conserve the fish. A significant activity would be to install small ice-producing machines in the intermediate towns, like Bretana or Requena, to supply the fishermen daily. Ice could also be sold to the merchant, thus reducing their cost of transporting ice to and from Iquitos.

Improvements may also be made in the technology of salt conservation, introducing sun energy furnaces and probably smoked fish techniques. These activities would serve to reduce the estimated fish loss from boat to market.

Improvements in dry-salt processing is an example of one of the most promising income-increasing activities this Project could undertake. Fish loss could be reduced substantially if new technology is introduced and adopted. A summary of E. Durand's work a Peruvian consultant and contracted specifically to economic feasibility of various activities for this Project is presented in Annex M.

### 3. Agroforestry

The potential to regenerate the secondary growth and deforested areas of the zone to carry out intense agroforestry and obtain substantial economic benefits is enormous. This has

been demonstrated through research. However, this would require significant initial investment on the part of local people. Social reluctance could be great because of the delay of the most substantial economic benefits, which could take up to ten years.

In this Project, agroforestry refers to the extraction of wild harvest or harvest of home orchard and garden of fruits and other products. To begin, the project will target specific short-term, high return products, such as the cultivation or wild harvesting of "palmito" or ungrape palm fruits.

#### 4. Marketing/Commercialization

Considering the physical isolation of the Reserve and the surrounding area, commercial intermediaries play an important role by transporting products to regional markets under major transportation limitations.

Almost all transportation of goods is made by river, using boats of varied sizes and performance. Transportation equipment is old and expensive to maintain; some of the bigger boats are more than 80 years old.

Prices paid for aquatic products in the Reserve area increase 3 to 5 fold when finally sold in Iquitos due to high transportation costs and the cost of ice.

The marketing process has developed out of regional traditions and would not be significantly changed by actions taken within the Reserve, but only by actions taken in the region as a whole. Some localized improvements, however, can be made by favoring the bargaining position of the producer: for example, the construction of storing and cooling facilities, and by improving the fish salting/drying processes.

The same applies to agricultural products, especially for those products considered to have longer shelf life like plantain and yuca. In these cases, storing goods in a shaded and ventilated environment would notably improve the durability of the product. Also to be considered, is the possibility of transforming plantain into flour, and yuca into starch, products that have expanding markets both in Peru and abroad.

Merchants not only play a role as buyers of the local production but they also act as suppliers and financing agents to the producers. They are the main people in the area involved in the modern monetary/financial system. They keep bank accounts, keep savings and make investments. The Project will explore the possibility of utilizing established merchants as the medium to implement actions. Merchants are in a position to apply for bank credits, they know where specific products are in demand, and how to deal with the producers helping to ensure a higher return on loans.

## **D. Social Analysis Summary**

### **1. Cultural Acceptability**

With the exception of two small cities, Nauta and Requena, neighboring the PSNR, the area is thinly populated. Scattered small communities with a population fluctuating between a few families (5-10) to larger clusters (110-150) are distributed every 10 to 20 kilometers along the rivers and boundary of the Reserve, which includes the Ucayali/Puinahua and the Marañon Rivers. The households of this area average 7-10 people, and constitute a dynamic unit of social reproduction, economic production and consumption.

In total, the population is estimated at 100,000 people all of whom are dependent upon the PSNR for sustenance and economic advancement. Beyond the immediate area of influence of the Reserve, the extended region of Iquitos on the East, Yurimaguas on the West, and Contamana to the South comprises an area containing an additional 500,000 inhabitants.

Those who live near the PSNR start work young -- boys are usually at work in the fields and streams by the age of 10 or 14. Women typically find work in the fishing industry, making and repairing nets, cutting and salting the fish, constructing tables made of wild cane, and more recently, in jobs related to catching and harvesting ornamental fish.

The following is a summary of the general attitudes determined from a sampling of the Project beneficiary population, and a preliminary assessment of their potential for development and inclusion in the Project.

- A strong family orientation is observed at the community level. The Project should focus on the kinship relationships as a means of mobilizing support for the Project activities. The household unit will have a significant role in the development of increased income generation through skills and entrepreneurial training, as well as the sustainable conservation of natural resources.
- The Project should build upon the existing and traditional knowledge found in the Project areas.
- Given the absence of institutional development at the community level, emphasis should be placed on the development of new institutions, which build upon the basic family unit, and serve to organize the communities in support of the Project.
- Community associations and supervised and controlled credit delivery programs represent possible solutions to the wholesalers system and other constraints to increased income and employment opportunities.
- Agricultural development will reduce pressure on the PSNR. New agriculture and agroforestry activities, combined with greater use of technology and commercial channels

for opening new markets, will help transform the PSNR and achieve optimum development and conservation standards.

## 2. Gender Considerations

The gender-based analysis attempts to ascertain the status of women in the Pacaya-Samiria National Reserve, and the potential for increasing their participation in income-generating activities and in the conservation of the Reserve's natural resources. The study determined that it is imperative to define an active role for river community women, within the redefinition of use and economic benefits to be derived from the zone.

Participation should begin with training (skill-specific courses and environmental education), in order to create an environment in which women act as valuable members of the community, contributing work which is recognized as important. Without incorporating them into economic and financial decision-making, river women will remain marginalized. Prior training for increased efficiency will enable women to take a leading role in expanding production techniques of fish preservation (salted, dried, fresh), differentiated use of agricultural products (yuca, plantains, aguaje, camu camu), and expanded artesanía (weaving, ceramics).

Further, women should be educated regarding the unique flora and fauna of the region, and taught methods to enhance conservation. Given their natural proximity to the community's children, it is logical to designate a principle role for women in the dissemination of natural resource information.

In conclusion, the gender analysis suggests technical training of women of areas that will heighten their community's efficiency and provide them with a degree of economic control.

### E. Institutional Analysis Summary

The Institutional Analysis principally describes The Nature Conservancy and the FPCN, local private organizations forming part of the Conservancy's NGO network, and includes an organization chart which illustrates the difficulty of drawing a clear line between the Resource-related and Incomes-related elements of this Project.

It should be noted that the Conservancy and FPCN will coordinate Project activities with those of the National Parks Program office which has authority for the Reserve's management. In addition, the Project will coordinate with the regional authorities, the World Wildlife Fund, and other local institutions, as appropriate. Currently, an oversight consortium is being considered to provide coordination between the primary institutions to be involved. The National Parks, regional authorities, WWF, FPCN/Conservancy, and a local community representative are probable members of this consortium.

The Technical Analysis found the principle NGOs technically capable of implementing the Project. Generally, however, The Nature Conservancy usually includes institutional strengthening support as an integral part of its projects with NGOs to ensure the long-term sustainability of conservation efforts. In the PID, institutional strengthening was considered as a major component. It has been decided that this Project will not target the institutional development of NGOs. However, the Conservancy will continue its current program of training and technical support to Peruvian NGOs. While these activities will not be an integral part of this program and will not be counted as matching support, but they will complement the activities of the Project.

### 1. The Nature Conservancy

Incorporated in 1951, The Nature Conservancy (the Conservancy) is a U.S.-based international non-profit organization committed to worldwide preservation of natural biological diversity. The Conservancy has been responsible for the protection of over 5.1 million acres of land in the U.S.

The Conservancy is also a registered private voluntary organization under USAID guidelines. To date, the Conservancy has worked actively in Latin America and the Caribbean by building the capabilities of in-country organizations for the protection and management of natural wildland resources. The Conservancy currently has 30 Latin American partner organizations in 17 countries, who are responsible for the management of more than 15 million acres of natural areas in their respective countries. Under the USAID-supported "Parks in Peril" program, the Conservancy and its Latin partners are working together to ensure the proper long-term management of 200 important national parks and reserves in this hemisphere.

Experience gained through USAID projects in support of the Yanachaga-Chemillen National Park and the Central Selva Resource Management Project form the basis for the current Conservancy project proposal (see Annex G for a listing of A.I.D. grants to the Conservancy). This experience includes the use of locally-based NGOs to transfer skills and information to populations which have an impact on natural resource management. The Conservancy has also been instrumental in providing technical assistance for the development of Conservation Data Centers (CDC) both in Peru and throughout other Latin American countries. In addition, for the past five years the Conservancy has provided institutional support to the Peruvian Foundation for the Conservation of Nature (FPCN), and has also worked on natural resource policy activities with the Peruvian Society for Environmental Law (SPDA).

In 1987, the Conservancy placed an advisor in-country to support FPCN's work in the Yanachaga project and to provide technical assistance in institutional development. The technical assistance and other support focused on improving administration and management, financial self-sufficiency, and activating and improving private sector involvement in support of conservation. To date, FPCN has received support from 40 corporate members, and has made great strides in developing a network of community organizations and NGOs throughout the country.

Since 1988, the Conservancy has drawn upon its experience in five other Latin American countries to advise the Peruvian government, in concert with the WWF and FPCN, on the prospects for debt-for-nature swaps and long-term financial support for conservation programs. These efforts helped to secure a national debt-for-donation law which has been in place since 1989. Although there has only been one debt swap to date in Peru, the potential for future activity remains strong, with the Conservancy and FPCN continuing to provide assistance to the GOP on the design of debt-for-nature policy and laws.

## 2. The Peruvian Foundation for the Conservation of Nature (FPCN)

In 1984 the FPCN was established with the purpose of protecting viable, representative examples of each natural ecosystem in Peru and its biological diversity contained in each of them. In addition, FPCN works to create a better understanding among Peruvians -- of the need and methodologies to conserve these natural resources.

In 1985, the Conservancy received funding for an operational start-up grant for FPCN. In 1987, 18 conservation projects were either newly initiated or continued from 1986. A highlight of the year was the approval of USAID's grant to develop the Yanachaga-Chemillen National Park.

FPCN is currently carrying out or administering several habitat conservation and management projects which focus on the establishment, development and support of Peruvian conservation units. FPCN is currently wholly or partially managing nine of Peru's 25 conservation units. Eight of these projects include significant community development components (see Annex L for a description of FPCN's community development experience). FPCN has branch offices in Cusco, Tumbes and Iquitos.

## 3. Local Private Organizations

The Nature Conservancy and FPCN consider it imperative that the Project involve local expertise and organizations wherever possible within the Project. It should be noted that while the majority of the organizations listed below are not strong financially nor do they have stable levels of permanent staffing, each has important field experience and local and international contacts which will be valuable to the implementation of the Project.

The following is a listing of potential organizations to be involved:

ACONA (Asociación para la Conservación de la Naturaleza de la Amazonia), located in Iquitos, is a non governmental organization founded as a sister organization to APECO (Asociación Peruana para la Conservación de la Naturaleza). ACONA's record in the Amazon region includes research in flora and fauna, particularly in management of rural development and environmental education programs, ACONA's technical team includes well known scientists from the IVITA organization -- including biologists Drs. Franklin Ayala and Filomeno Encarnación (President of the organization).

**ADAR (Asociación para el Desarrollo de la Amazonía Rural)** is a non-profit health and development organization with offices in Iquitos and Tambo-Ene, supported by the international NGO Save the Children. ADAR has worked for over nine years in the Peruvian jungle through native communities within the central selva.

**FEDECANAL (Federación de Campesinos y Nativos de Loreto)** is made up of local peasants and native communities within the Amazon region, for the purpose of strengthening productivity and quality of agricultural and off-farm products, and in the conservation of natural resources (forestry and fisheries), legal support in land titling, and other community development activities, FEDECANAL has representative offices in Contamana, Requena, and several villages along the Ucayali and MaraOon rivers. FEDECANAL is currently trying to further expand its representation within the region to include the Puinahua Channel area. Small grant support is provided to FEDECANAL groups by the WWF/US.

**IIAP (Instituto de Investigación de la Amazonía Peruana)** is a national-level public entity with headquarters in Iquitos, with branch offices in Tarapoto, Pucallpa and Puerto Maldonado, and research centers in Jenaro Herrera and Allpahuayo. IIAP main objectives are the promotion of economic and social development through technical assistance in surveys and research data collection and analysis, and the management and control of natural resources in the Peruvian Amazon.

As a means of channeling funds and resources for project activities, IIAP has created the "Fondo para la Conservación y Preservación de la Naturaleza", which has autonomy as a registered NGO, as an extension of the institute. IIAP also has binational agreements with Colombia and Brazil, and manages a reserve of 3,000 hectares for research in flora y fauna, which is financed jointly by the Russian and French governments.

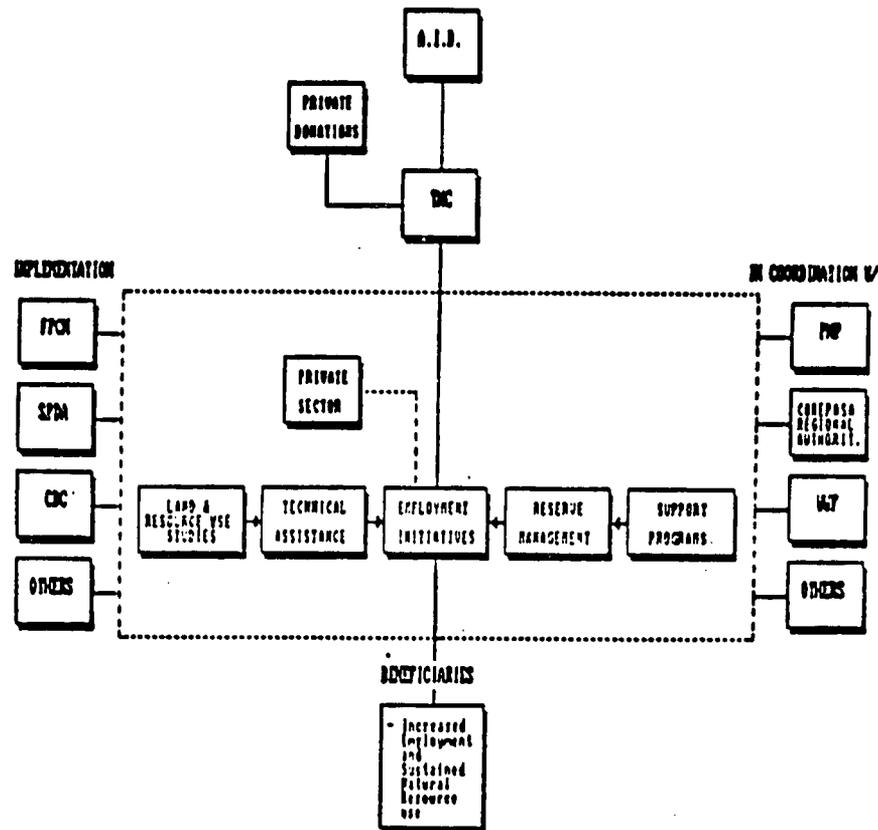
**ASOCIACION AMAZONIA (AA)** is a recently formed NGO, with headquarters in Lima and branch offices in Iquitos, Puerto Bermudez, Pucallpa, Tarapoto, Huancayo, Ayacucho and Puno. The Asociación Amazonia focuses on issues of conservation and environmental protection within the framework of rural development planning and programming. AA's branch office in Iquitos has a staff of professionals from UNAP's Forestry faculty, IVITA scientists and former officials of COREPASA.

**IVITA (Instituto Veterinario de Investigaciones del Trópico y de Altura)**, is an adjunct to the UNMSM, and is staffed by researchers specializing in livestock and pasture management. The UNMSM is studying various species of plants native to the Amazon which have not been studied or previously identified.

**CAAAP (Centro Amazonico de Antropologico y Aplicación Practica)**, is headquartered in Lima with a branch office in Iquitos. CAAAP is an NGO linked to Catholic church of the Amazon, and is dedicated to supporting low income populations -- mainly within native communities. Educational services, training, and publications and documentation are provided by CAAAP in the areas of health communication, rural development, ecology and the environment.

#### 4. Organizational Structure

This organizational diagram illustrates the flow of Project inputs through the Project to beneficiaries:



#### VII. ISSUES

##### A. Park vs. People

The issue here is the contradiction between (1) the Reserve and its natural resources and (2) the economic dependence of the people who live in and around the Reserve on the exploitation of those resources. Resolution of this issue starts with the recognition that the tension cannot last: the park and the people will hang together or hang separately. The needs for and difficulties of institutionalizing effective Reserve management and controls and spurring prudent economic growth are acknowledged; but the greater need is for the instillation of a popular attitude recognizing the self-destructive effects of the non-sustainable use of these resources, accepting the desirability of sound conservation practices, and seizing the entrepreneurial and employment opportunities the Project will seek to create. This cultural change will take time. The Project's combination of research and education efforts, reinforced by actual conservation and incomes-promoting activities, offers a good start.

## B. Consequences of Oil Exploration

As noted in the Economic and Social Analyses, oil exploration and production in the Reserve during the 1970s caused extensive water pollution, with adverse environmental, economic and social consequences. Oil exploration may resume. A repeat of the experience which began some twenty years ago could lead to environmental damage sufficient to negate the positive effects of this Project in sections of the Project area. If a resumption of exploration is confirmed, the application of environmentally sound practices will be sought. The Conservancy has worked with Conoco Corporation, which is drilling for oil in Yasuni National Park in Ecuador, to implement habitat protection measures. The Conservancy will seek a similar positive working relationship with companies, if any, which sign contracts with the Peruvian government to extract non-renewable resources from the Reserve.

## C. Security

The Pacaya-Samiria National Reserve is located in the Department of Loreto, east of the Andes in the lowland headwaters of the Amazon River. The capitol city of Loreto is Iquitos, an Amazon port city of approximately 350,000 inhabitants. The Amazon, Ucayali, Marañon, Pacaya, and Samiria rivers are the means of transportation from Iquitos to the Reserve. The area is remote, inaccessible by road and USAID considers it to be a low risk area regarding acts of terrorism. Coca cultivation and processing do not occur within Pacaya-Samiria National Reserve and its immediate surroundings.

## D. Compliance with Section 620(O) and Brooke-Alexander Amendments

The Project will be implemented through a HB 13 grant with The Nature Conservancy (the Conservancy). The Conservancy is a US-based PVO, registered with A.I.D. on June 1, 1984. USAID/Peru will make available funding to the Conservancy using authority contained in the 123 (e) notice signed by the Acting Administrator on September 19, 1989 and Notification sent to the Speaker of the House and the Chairman of the Senate Committee on Foreign Relations on April 23, 1991 (see Annex N), which allows continued support for programs of PVOs already being supported prior to the date that prohibitions, such as those contained in Section 620 (q) and the Brooke-Alexander Amendment, became applicable. The Conservancy has been receiving support from A.I.D. without interruption prior to the August 2, 1989 and September 1, 1989 dates on which the above described sanctions entered into effect.

## **VIII. CONDITIONS AND COVENANTS**

### **A. Conditions Precedent to Disbursement**

An initial disbursement of up to \$75,000 under the grant will be made for the purpose of funding technical assistance. Of this amount \$30,000 will be used to conduct an Environmental Assessment (EA) for the Project, and the remaining \$45,000 will be used to cover the costs of the TNC In-Country Advisor and the FPCN Project Director. The cost of these two long-term contractors will include salary, per diem, housing/lodging, as well as travel

Should the amount allotted for the EA be insufficient, funds from the amount provided under the initial disbursement for technical assistance may be utilized. However, the \$75,000 should not be exceeded prior to A.I.D./W approval of the EA.

No other costs except as provided above will be approved for activities prior to approval of the Environmental Assessment.

The Scope of Work for the EA will be developed by A.I.D. with input from TNC. The Nature Conservancy will submit this assessment to A.I.D. for review and approval prior to subsequent expenditure or committal of funds by the Grantee.

### **B. Covenants**

1. The TNC agrees to establish an annual workplan which details project implementation priorities for project assistance during the first calendar year of the project and appropriate performance benchmarks of success against which objectives can be measured.

2. The TNC agrees to establish an evaluation program as part of the project to carry out annual evaluations. The program will include:

a. An evaluation of progress toward attainment of the objectives as described in the workplan.

b. Reporting to USAID/Peru on an annual basis and prior to USAID's reporting requirements to Congress on the performance of benchmarks and indicators of progress as detailed in the Annual Workplan and the Mission's Action Plan.

c. Identification and evaluation of problem areas which may inhibit such attainment; and,

d. An evaluation, to the degree feasible of the overall development impact of the Project.

**ANNEXES (Attached)**

- A. Logical Framework
- B. Initial Environmental Examination (IEE) and Environmental Threshold Decision
- C. Source and use of Funds: Four Years
- C.1 Administration Funding: USAID/TNC
- D. Community Center Locator Map
- E. Sample Construction Designs- Community Center, Control Post
- F. Acronyms
- G. Past Contracts and Grants of The Nature Conservancy
- H. F.Y. 1992 Implementation Plan
- I. Training and Technical Assistance Plan
- J. Project Letter of Intention between TNC and FPCN
- K. FPCN and National Parks of Peru (PNP) Agreements
- L. FPCN Community Development Experience
- M. Economic Analysis Summary Tables and Charts
- N. 123 (e) Determination Letter.
- O. Conservancy's Drug-Free Workplace Certification
- P. Conservancy's Assurance of Compliance with Federal Law

**ANNEXES (Unattached)**

- Q. Financial Background of the Conservancy
- R. Complete Feasibility Analyses
  - 1. Economic, Social, and Institutional Analysis
  - 2. Gender Considerations Analysis
  - 3. Technical Analysis

LOGICAL FRAMEWORK

NARRATIVE

Goal: To increase foreign exchange, increase income, and boost productivity while preserving natural resources through a rapid, sustainable, private sector-led economic initiative.

OBJECTIVELY VERIFIABLE INDICATORS

- Foreign exchange inflows from licit sources increase
- Per capita incomes increase
- Natural resources in project area sustainably managed
- Key economic species populations increased or maintained at sustainable levels
- Key threatened species' populations stabilized or increased

MEANS OF VERIFICATION

- CORFASA and Department of National Parks records
- Project evaluations, Ministry of Economy and Finance records
- NDD reports
- Initial and subsequent natural resource diagnostic studies
- Initial and subsequent economic diagnostic studies
- National Accounts data
- IMF performance reporting

ASSUMPTIONS

- Project is compatible with the master plan of the regional government authorities
- Political and economic stability in the region
- Standards, norms and policies which govern the Pacaya-Samiria Reserve are adequate to control and restrict industrial and other types of exploitation
- Private investment/donations materialize

50.

#### NARRATIVE

**Purpose:** To create in Pacaya-Samiria a balance between (a) natural resource conservation and biodiversity protection and (b) economic use, leading to sustainable and increasing regional productivity and income.

#### END OF PROJECT STATUS

- Increased incomes of 10-20% for the 5,000 direct beneficiaries of the project based on new economic activity which is environmentally sustainable
- Enhanced employment opportunities and other economic benefits for approximately 100,000 people within and around the Pacaya-Samiria Reserve
- Maintenance or increased availability of economically important species within the Reserve
- No net gain in environmental degradation to the Pacaya-Samiria Reserve and within the project designated areas
- Enhanced community awareness of the feasibility and desirability of sustained yield practices
- Increased product volumes in extractive industries, fishing, and agroforestry

#### MEANS OF VERIFICATION

- Regional Government statistics
- Project Evaluations, Audits
- Initial and subsequent natural resource diagnostic studies
- Initial and subsequent economic diagnostic studies
- CORPASA/WWF reports/studies
- INC/FPON Records

#### ASSUMPTIONS

- Technical expertise is available to assist project beneficiaries in accordance with their needs and time requirements
- NGOs and community development groups are willing to participate in the project and the planning of project activities
- Project funding mechanism (e.g. small grant program, subcontracted technical assistance) is efficient and responsive to NGO and community needs.

#### NARRATIVE

##### OBJECTIVES:

- Sustainable and productive use of a greater variety of native plant and animal species.
- Participating communities being paid higher prices for their products as a result of more direct access to markets.
- Participating communities provided with direct access to new markets for their products.
- Reproduction zones, hunting and fishing limits, extraction regulations set for economically important plant and animal species.
- Community-use zones established in areas surrounding the Reserve.
- Functioning management structure in place at Pacaya-Samaria Reserve.
- Functioning resource use and control facilities in place.
- Technical information regarding natural resources management and appropriate utilization and conservation techniques available to policy makers.
- Collaboration strengthened among regional, national, and international public/private sector institutions and resource users.

#### OBJECTIVELY VERIFIABLE INDICATORS

- Stabilization of populations of at least 10 key economically important species and increased extraction of or economic benefits from at least 10 species.
- 10-20% increase in baseline prices for extractive industries, fishing, and agroforestry products.
- 10 Community Centers/Control Posts functioning in or near the Reserve to assist in marketing, conservation, and control
- 25 Reserve Conservationists trained and hired to carry out project activities
- 400 community leaders and representatives trained
- 30-50 community income generating activities established, 5-10 with components focused on the improvement of product marketing
- 18 target communities provided technical assistance and equipment to support project activities
- 5 community-use zones established in areas outside the Reserve.
- Complete baseline and continuing social, economic, and resource studies in place for making land and resource use management decisions.
- More than 25 technical and educational reports completed and distributed to community leaders and extensionists.
- Resource use materials covering key topics (at least 10) prepared and distributed to community leaders and extensionists.
- Increase in Peru-based financial and technical support for the project.

#### MEANS OF VERIFICATION

- Project evaluations and audits
- Regional government records, CORFO/PASA and DNP information
- NGO reports and other project information
- ADEX information and economic data
- CDC project information
- Initial and subsequent natural resource diagnostic studies
- Initial and subsequent economic diagnostic studies

#### ASSUMPTIONS

- Project is compatible with the plans developed by the regional government authorities and National Park officials
- Political stability within the project areas
- Minimal negative consequences from petroleum activities
- National and Regional governmental authorities, and private sector organizations, willing to address sectoral policy issues needed to enhance potential for economic growth
- Participation in the planning of project activities from local NGOs and community development groups

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NARRATIVE  
INPUTS (\$000)

USAID

TNC

Environmental Assessment  
Studies  
Training/TA  
Commodities/Construction  
Project Administration  
Financial Review/Evaluation

30  
625  
1,312  
913  
605  
115  
\$3,600

-  
85  
600  
305  
410  
-  
\$1,400

IMPLEMENTATION SCHEDULE

- 18. 13 Grant to TNC  
- A.I.D. Direct Contract  
for financial review and  
evaluations

MEANS OF VERIFICATION

Project Documentation

ASSUMPTIONS

- Availability of A.I.D. funds  
- Availability of TNC funds  
and project management support  
- Environmental assessment  
completed

(5896A)

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INITIAL ENVIRONMENTAL EXAMINATION  
AND ENVIRONMENTAL THRESHOLD DECISION

INITIAL ENVIRONMENTAL EXAMINATION

Project Location : Peru

Project Title : Employment and Natural Resources Sustainability for the Pacaya-Samiria National Reserve.

Project Number : 527-0341

Funding : \$3,600,000 USAID/Peru (OPG)  
\$1,400,000 Counterpart

Life of Project : 4 Years

IEE Prepared by : Thomas F. Hourigan,  
Environmental Advisor, LAC/DR/E

Recommended Threshold Decision:

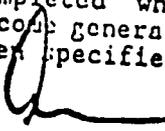
Positive Determination for Conservation/Management of Reserve and Buffer Zones Component and Sustainable Income Grant Fund Component.

Categorical Exclusion for training, institution building, technical studies, and technical assistance (except for direct assistance in categories with a positive determination) components.

Comments

: Recommend deferred Environmental Assessment for Conservation/Management of Reserve and Buffer Zones Component, to be completed during the initial Land Use/Institution and Socio-Economic Studies, but before implementation of other activities. Recommend deferred Environmental Assessment of Sustainable Income Grant Fund Component and associated technical assistance, to be completed when specific activities for income generation and other activities have been specified.

Mission Director's Concurrence:

  
 \_\_\_\_\_  
 Craig Buck  
 Director  
 8/19/91  
 \_\_\_\_\_  
 Date

INITIAL ENVIRONMENTAL EXAMINATION  
ENVIRONMENTAL REVIEW

Employment and Natural Resources Sustainability  
for the Pacaya-Samiria National Reserve

USAID/Peru

## Project Number 527-0341

I. PROJECT DESCRIPTION

The proposed <sup>4</sup> year \$3.6 million project supports an operational program grant (OPG) to The Nature Conservancy to improve natural resources management in the Pacaya-Samiria National Reserve and the surrounding areas, and to develop income generating activities that will produce employment and decrease destruction of the natural resource base. The Conservancy and the Peruvian Foundation for the Conservation of Nature (FPCN) will match support from the OPG with approximately \$1,469,000 to raise the five-year project total to \$5,069,000.

The goal of the project is to conserve biological diversity and to increase rural incomes through sustainable natural resource management and utilization. The purpose of the project is to increase incomes to local communities through economic activity based on the sustainable use of biological resources in and near the Pacaya-Samiria National Reserve in the Department of Loreto, thereby helping to assure its protection. The project will strengthen the capacity of national and local non-governmental organizations (NGOs), and local communities to utilize, develop, protect, and manage the reserve and adjacent lands. The project will accomplish its purpose through a series of activities that: a) protect the integrity of the reserve b) achieve development through sustainable natural resources management; c) emphasize local participation; and d) create new jobs and small businesses.

The project will consist of three major components:

1. Land Use Planning for Sustainable Development and Protected Areas Management.
2. Generating New Jobs and Income through the Utilization of Sustainably Managed Natural Resources.
3. Strengthening Institutions for Conservation and Sustainable Development

The implementation of the components will stress an integrated approach to natural resource management, based on ecological and socio-economic studies of the area, leading to rational land use planning incorporating the participation and commitment of the local population. Specific follow-up studies will help identify resources in need of special management, as well as those that offer opportunities for sustained economic development. These studies will then lead to small scale demonstration activities (e.g. extractive industries, agro-forestry, etc.) that will lead to rational and sustainable utilization of the resource base and increase employment opportunities in the area. These activities will be supported by activities to strengthen the capacity of national and local NGOs and community groups in natural resource management.

1. Land Use Planning for Sustainable Development and Protected Areas Management

- a) Diagnostic Studies

The project will begin by undertaking two diagnostic studies. The first study will determine the overall land use and institutional framework in which the project operates. It will indicate areas of opportunity for private sector involvement in natural resource management to support conservation, and identify

prospective development partners at a general level. The second study will make more detailed socio-economic analyses of selected communities and selected natural resource development prospects, such as under-used economically important species. Together, the two studies will highlight possibilities for development actions that include local income generation through the private sector, coupled with conservation action. The two studies will also serve as a preliminary basis from which the small grants component can establish criteria for making and monitoring grants.

**b) Environmental Monitoring**

The project will develop rapid assessment and monitoring techniques to obtain reliable, focused information about trends in resource condition and use to assist in management decisions for land use and conservation within and near the Reserve. Special attention will be paid to the more densely populated areas. The Conservation Data Center (CDC) will be contracted to carry out the necessary analyses in conjunction with the Conservancy GIS and satellite imagery specialists. FPCN will use this information to prepare formal recommendations and cooperate with the appropriate government agencies and NGOs to promote private sector natural resource sustainable development in the buffer areas. The analyses will explore all aspects of land use planning and natural resource management as well as various types of protected areas designations - e.g. communal reserve, water supply protection area, etc.

**c) Natural Resource Use and Management Studies**

The project will finance and carry out at least three applied research studies each year during the life of the project. The studies will focus on gaining the information necessary to make sustainable use decisions regarding key economically important species. Information from these studies will be used to identify activities for the small grants program, and may provide the basis for informed decisions about future utilization of commercially important resources.

**d) Protection and Management of the Pacaya-Samiria Reserve**

This component will improve on-the-ground stewardship and management in Pacaya-Samiria to increase its functionality as a reserve for biodiversity and natural resource management. The project will supplement the level of current management provided by COREPASA and the National Parks Department (DNP). The purpose is to ensure minimum critical management, especially in places where little or no protection is currently taking place.

Project Funds will support the following protection activities in Pacaya-Samiria:

- o Hiring and training of core staff including reserve rangers, wildlands management specialists, community extensionists, and administrators;
- o Field implementation of the existing Development Master Plan for the Reserve;
- o Facilities construction including control posts and administrative facilities;
- o Purchase of basic field equipment and supplies;

o **Boundary demarcation.**

e) **Buffer Zone Management.**

To the extent practical, the project will implement the recommendations derived from the analytical studies in the buffer zone. In the implementation phase, the project will demarcate boundaries, construct infrastructure, train personnel, and provide equipment in similar fashion to that provided inside the reserve.

2. **Generating New Jobs and Income through the Utilization of Sustainably Managed Natural Resources.**

The project will include a grants mechanism, coupled with technical assistance, to fund income generating natural resource activities of promising development organizations and local community cooperatives.

The project will provide small grants (approximately \$10,000 to \$50,000) for activities in institution strengthening, education and training, and investment and operating capital for natural resources management projects. Support will also be made available to aid the community involvement process and develop initial business plans for community-based projects. All grants should meet two elemental criteria: 1) the grant should support an activity designed to generate stable local income; and 2) the activity supported by the grant should enhance biodiversity conservation.

Examples of the types of community-based projects which might qualify for support include: sustainable forest management for timber or non-timber products; agroforestry; fish and game management; product transport and marketing; small business establishment; and eco-tourism development.

The project will support these efforts by providing technical assistance in the form of feasibility and marketing studies, agricultural extension, and by financing and training three community extension agents. These agents will work with local communities on all aspects of the sustainable natural resource management activity development and marketing of products harvested or produced from these activities.

3. **Technical Assistance, Training and Institutional Strengthening in Conservation and Natural Resources Management to NGOs and Communities.**

Through the project, the Conservancy will provide technical assistance, training, and project oversight in reserve management and institutional development.

Specific technical assistance and training activities will include the following: 1) In-country advisors and technical assistance, to include institutional development, natural resource management, and training in self-sufficient financing; 2) Production of new conservation and sustainable natural resource use and management publications, promotional materials, and educational materials; 3) training for professional reserve staff through the ongoing

training program operated by FPCN and DGFF; 4) Training natural resource and wildlands managers; and 5) Participating in seminars on protected areas design and management, sustainable natural resource use, NGO management and fund-raising skills.

## II. ENVIRONMENTAL REVIEW

### A. Background and Environmental Challenges:

Pacaya-Samiria in the Department of Loreto in the Amazonian Selva is the largest National Reserve in Peru (2 million hectares). It consists of moist, lowland tropical forest located between the Ucalali and Marañon rivers. Within the reserve there are high unflooded alluvial terraces, high vigor gallery forest, low unflooded alluvial terraces, and swamp areas with extensive stands of the "aguaje" palm (Mauritia flexuosa), a potentially important commercial species producing both oil and fruit.

The Reserve was established nearly 50 years ago to conserve several species of wildlife with special economic importance for Loreto, notably paiche a prized fish, river turtles, and several species of caiman. The Reserve provides habitat for other important animals also - monkeys, felines, macaws, river otters, deer, wild pigs, tapirs, agoutis, etc. Many of these animals provide protein in local diets; others are endangered species that require protection. Hunting and fishing are permitted in national reserves as long as these activities are regulated to conform to requirements for conserving and managing fish and game. There is currently little evidence of management. The exact status of most commercial species is unknown, however there are reports of over-harvesting of turtles and over-fishing of paiche and other fishes.

Under Peruvian law, land clearing and tree cutting are prohibited in national reserves. Therefore Pacaya-Samiria cannot be managed for timber, although buffer-zone areas could be. Numerous high value timber species occur in the buffer-zones. The optimal volume of all extractable lumber in these areas has been estimated at 96 to > 126 cubic meters per hectare. Present selective extraction techniques in Peru yield mean volumes of 0.32 cubic meters/ha, only 11.59% of which is utilized. The amount of illegal timber extraction from the reserve is unknown, however it probably occurs along tributaries using unmechanized extraction of selected species. Logging and unsustainable agriculture by colonists along the new Iquitos-Nauta road (reaching the edge of the Reserve) is extensive (>1,000 ha), uncontrolled and unmanaged.

Many species of fruits (193 spp. have been observed regularly in the Iquitos market) are found in and around the Reserve. There is evidence that many of these fruits are decreasing in availability in Iquitos due to overharvesting. This appears to be the case for aguaje, where destructive harvesting techniques have cut down most aguaje trees near population centers. Only a small portion of the land area is suitable for agriculture. These areas usually lie in the alluvial flood plains near the rivers.

The Peruvian government manages the conservation units through the Direccion General Forestal y de Fauna (DGFF) in the Ministry of Agriculture on a limited budget that does not suffice to provide full-scale management to all of the units. The Peru Tropical Forestry Action Plan reports 153 park guards for 5.2 million hectares, or one guard per 34,000 hectares. To augment its on-the-ground management capacity, DGFF has entered into cooperative agreements with FPCN, the Fundacion Peruana para la Conservacion de la Naturaleza, to carry out management projects in several conservation areas.

Formerly COREPASA, Comité Local de Desarrollo de la Reserva Pacaya-Samiria, an institution drawn from several national and local agencies, administered Pacaya-Samiria. COREPASA produced a master plan for the Reserve with the assistance of the World Wildlife Fund. The present attempt to give Departments greater autonomy has left unclear the future management of the Reserve, and the possible roles of COREPASA, FPCN and regional Fish and Agriculture Departments. This uncertainty could affect project implementation.

Currently, Pacaya-Samiria faces increasing pressure from neighboring communities who use the Reserve as a significant source of protein, and of income, from hunting and fishing. These communities include native communities in the northern area of the reserve, and larger numbers of colonists or "riberenos" along the Ucayali river to the south. The communities differ greatly, and different approaches to resource management and income generation will likely be necessary.

Preliminary agreements have recently been signed by the Peruvian Government and a U.S. oil company "Texas Crude" allowing oil exploration in the reserve. Previous small scale activities by Petro-Peru in the Reserve, and large scale activities in the tropical forests of Ecuador suggest that very significant adverse environmental impacts could be expected if oil is commercially exploited.

#### B. Potential Effects of Project Activities:

The objective of this project is to manage and conserve the resources of the Pacaya-Samiria Reserve and the surrounding areas for environmental improvement and economic gain. Therefore, it is most likely that the Project will have a positive impact on the environment, with little negative impact. The Income Generation Component, consisting of small grant activities, and to a lesser extent the implementation of reserve and buffer-zone management are the only activities that involves field activities with significant, direct impact on the environment. Other activities are expected to have only indirect, though potentially significant, positive impacts on the environment.

The small grants are intended to have positive environmental, social and economic benefits. Nevertheless, it is conceivable that through poor design or implementation, individual activities could have negative environmental consequences.

#### C. Potential Issues:

1. Land Use Planning for Sustainable Development and Protected Areas Management.
  - a,b,c) Diagnostic Studies, Environmental Monitoring, and Natural Resource Use and Management Studies
  - o The studies will serve as the basis for establishing environmentally sound land and resource use criteria. They will have no direct environmental impacts, yet the success and positive impacts of

implementation activities will depend strongly on the thoroughness of these studies. One of the project's major strengths is its emphasis on baseline studies, and these should not be short-cut in a desire to rush implementation. Each study should explicitly address potential environmental impacts. In addition, consideration should be given to monitoring and evaluation activities that serve to anticipate unforeseen problems which may arise during the implementation phase.

d,e) Protection and Management of the Pacaya-Samiria Reserve and its Buffer Zones

- o These activities will increase the integrity of the Pacaya-Samiria Reserve, and increase the capacity of the Reserve Staff to manage the resources in a beneficial manner. Direct adverse environmental impacts would probably be limited to those due to improper siting of guard stations, administrative facilities, boundary markers or other improvements.
  - o The project proposal includes requests for vehicles and motorcycles. It is not immediately clear where these will be used, and whether their use will involve road building or improvements that will allow increased access by illegal timber operators or other environmentally harmful activities to the reserve or other sensitive areas.
  - o Any additional infrastructure improvements to the reserve, such as latrines, water supplies, etc. should be planned to minimize environmental damage and hazards to human health.
  - o It is not clear that sufficient funds will be available from the proposed project to implement new conservation zones in the buffer zones. Buffer zones north of the Rio Marañon are believed to be particularly important centers for biodiversity.
1. o The existing Development Master Plan for the reserve should be reviewed for environmental soundness, and compared with the results of the diagnostic and studies from the project. Evidence from recent satellite imaging (1988) suggests that certain areas listed as agriculturally degraded are in fact, natural swamps. The present Development Master Plan includes areas for increased tourism that may involve additional environmental impacts. It also proposes encouraging present inhabitants of the reserve to leave, without examining their impact on new areas.

2. Generating Income from Biological Resources Management and Sustainable Resource Utilization.

The exact nature and location of these activities will depend on the results of the studies, and so potential problems are conjectural. The plan for preliminary studies on which these will be based is an ideal mechanism for environmental review. Potential projects that have been suggested are:

- a) Management and improved exploitation of commercial fish or game species such as paiche, turtles or caiman. The degree to which such

activities will be commercially and environmentally sustainable will depend on the current degree of exploitation, how easily individuals can be bred or raised in captivity (thereby allowing restocking of natural populations), and what pressures new markets may cause for uncontrolled exploitation. Special care will be necessary if any of the species proposed for exploitation are listed as endangered or threatened. It is suggested that projects involving wild birds for the pet trade be avoided. Legislation is currently pending in the U.S. Congress to limit trade in such birds.

- b) Extractive industries in non-timber forest products. Fruits, medicines, oils and fibers may be profitably extracted from natural forests. Care must be taken, however, to avoid over-harvesting. Most extractive industries cannot support large population densities.
  - c) Agroforestry activities. These must be done with care, to make sure that the crops used are appropriate. Nevertheless, there is evidence that many wild fruit tree species could provide significant additional income to communities when grown in an agroforestry situation. No purchase, promotion or use of biosides (pesticides or herbicides) is anticipated, and none will be used without an environmental assessment specifically addressing their use.
  - d) Forest management of buffer-zone areas for sustainable timber harvests. Initial studies have suggested that commercial timber operations designed along the lines of the Palcazu Valley demonstration project could be ecologically sustainable in the vicinity of Jenaro Herrera or north of the Rio Marañon. Although the original hope was to apply the lessons from the Central Selva Project, the present funds are insufficient to contemplate commercial timber activities. Feasibility studies, however, might be valuable even if implementation was beyond the capability of the project. The Government of Peru is interested in agro-forestry programs in the area, especially along the Iquitos/Nauta Road. In addition, assistance to communities in efficient use of underutilized wood species, and more efficient use of present species could improve timber utilization.
2. e) Activities involving introduction of foreign animal species, such as fish, cattle, water buffalo, long haired sheep, etc. should probably be avoided.
- f) Ecotourism. Improper control of visitors or development could lead to degradation of the scenic attraction of these areas. At least one travel agency is considering eco-tours to the Pacaya-Samiria area. The viability of such tourism is not known due to the distance from Iquitos and lack of particular points of interest.
3. Technical Assistance, Training and Institutional Strengthening in Conservation and Natural Resources Management to NGOs and Communities.

These support activities will produce positive short term environmental benefits in the Pacaya-Samiria Reserve. Over the long run, it is hoped that these components will result in a significant beneficial impact on the environment by modifying attitudes and public opinion at the local and national levels. It should result in communities and NGOs (and indirectly the governmental agencies responsible for natural resource management) that are stronger and more effective in conservation activities.

XIII. RECOMMENDED ENVIRONMENTAL THRESHOLD DECISION

Since the project may have significant impact on the environment, a Positive Determination is recommended and an Environmental Assessment (EA) will be prepared. Since the first portion of the project consists of diagnostic studies, it is recommended that the environmental assessment for the Conservation/Management of Reserve and Buffer Zones Component be deferred until that time. The scope of work for the EA must be approved by the LAC Environmental Officer, who will also review the completed EA. This EA must be approved before other implementation activities proceed. The specific activities and communities for the Sustainable Income Component have not yet been identified. Therefore it is recommended that environmental review procedures for these components be incorporated into the above-mentioned EA, or performed separately for each class of activities in the process of the preliminary studies. Environmental assessments for the grant activities must also be approved by the LAC Environmental Officer prior to implementation. It is recommended that a Categorical Exclusion be granted for training, institution building, technical studies, and technical assistance (except for assistance in categories with a positive determination) components. These components will not require an EA.

LAC-IEE-91-84

ENVIRONMENTAL THRESHOLD DECISION

Project Location : Peru

Project Title : Employment and Natural Resources  
Sustainability for the Pacaya-  
Samiria National Reserve

Project Number : 527-0341

Funding : \$5 million

Life of Project : 4 Years (FY 92-95)

IEE Prepared by : Thomas F. Hourigan, Environmental  
Advisor, LAC/DR/E

Recommended Threshold Decision : Positive Determination for the  
Conservation/Management of Reserve  
and Buffer Zones component and  
Sustainable Income Grant Fund  
component.

Categorical Exclusion for training,  
institution building, technical  
studies, and technical assistance  
components (except for direct  
assistance in categories with a  
positive determination).

Bureau Threshold Decision : Concur with Recommendation

Comments : Concurrence subject to condition  
that Environmental Assessment (EA)  
will be prepared for the  
Conservation/Management of Reserve  
and Buffer Zones Component. This  
EA is to be completed in  
conjunction with the preparation of  
the initial land use/institution  
and socioeconomic studies, but  
prior to implementation of other  
activities. The EA for the  
Sustainable Income Grant Fund  
Component and associated technical  
assistance is deferred, to be  
completed when specific activities  
for income generation and other  
activities have been identified.

LAC-IEE-91-84

**ENVIRONMENTAL THRESHOLD  
DECISION, cont'd**

Copy to : Craig Buck, Director  
USAID/Peru

Copy to : Audon Trujillo, USAID/Peru

Copy to : Howard Clark, REA/SA

Copy to : Robert Kahn, LAC/DR/SAM

Copy to : IEE File

John O. Wilson Date AUG 28 1991

John O. Wilson  
Deputy Chief Environmental Officer  
Bureau for Latin America  
and the Caribbean

ANNEX C

Employment and Natural Resource Sustainability- Pacaya-Samiria National Reserve

FINANCIAL PLAN - Budget Summary

	AMOUNT (US\$)									
	FY 1		FY 2		FY 3		FY 4		Total	
	AID	TMC	AID	TMC	AID	TMC	AID	TMC	AID	TMC
<b>A. Studies</b>										
Environmental Assessment	30000	0	0	0	0	0	0	0	30000	0
<b>Income Related Studies</b>										
Socio-Economic Study	90000	10000	0	0	0	0	0	0	90000	10000
Income Opportunity Studies	50000	0	50000	0	50000	0	30000	0	180000	0
<b>Resource Related Studies</b>										
Land Use/Management Study	50000	0	40000	0	0	0	0	0	90000	0
Rapid Ecological Assessment	35000	30000	30000	30000	20000	15000	0	0	85000	75000
Resource Sustaining Studies	50000	0	50000	0	50000	0	30000	0	180000	0
<b>Studies Subtotal</b>	<b>305000</b>	<b>40000</b>	<b>170000</b>	<b>30000</b>	<b>120000</b>	<b>15000</b>	<b>60000</b>	<b>0</b>	<b>655000</b>	<b>85000</b>
<b>B. Technical Assistance and Training</b>										
TMC In-Country Technical Advisor	105000	10000	110000	15000	114000	17500	115000	17500	444000	60000
<b>Income Related T/A and Training</b>										
Community Extensionists (6)	31000	0	39000	0	40000	0	41000	0	151000	0
Income Increasing T.A./Training	50000	0	60000	0	60000	0	55000	0	225000	0
Community Org./Management T/A	25000	7500	35000	15000	30000	15000	23000	6500	113000	44000
Conservation & Resource Mgmt Materials	6000	0	8000	0	8000	0	8000	0	30000	0
<b>Resource Related T/A and Training</b>										
Resource Management Specialists (2)	12000	0	13500	0	14000	0	14500	0	54000	0
Reserve Conservationists/Training (25)	0	75000	0	100000	0	110000	0	115000	0	400000
Land Management/Resource Use	55000	14000	60000	18000	55000	16000	50000	18000	220000	66000
Long-term Finance/Debt Swaps	8000	6000	8000	8000	8000	8000	6000	8000	30000	30000
Conservation & Resource Mgmt Materials	9000	0	12000	0	12000	0	12000	0	45000	0
<b>T/A and Training Subtotal</b>	<b>301000</b>	<b>112500</b>	<b>345500</b>	<b>156000</b>	<b>341000</b>	<b>166500</b>	<b>324500</b>	<b>165000</b>	<b>1312000</b>	<b>600000</b>

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	FY 1		FY 2		FY 3		FY 4		Total	
	AID	TNC	AID	TNC	AID	TNC	AID	TNC	AID	TNC
<b>C. Commodities and Construction</b>										
Income Related Commod./Construction										
Income Increasing Community Activities	0	0	100000	0	150000	0	148000	0	398000	0
Community Center Construction	25000	0	30000	0	25000	0	20000	0	100000	0
Comm. Center Equipment- Furn.,Radio, etc	20000	0	22500	0	17500	0	12500	0	72500	0
Motorcycle, Boats	0	8000	0	12000	0	4000	0	6000	0	30000
Office Supplies, Printing	6500	0	9500	0	10500	0	7500	0	34000	0
Administrative Services	5500	0	5500	0	6000	0	6500	0	23500	0
Travel, Food & Gas, etc.	4500	0	6500	0	6500	0	6500	0	24000	0
Maintenance, Repairs, Misc.	5500	0	8000	0	8500	0	8500	0	30500	0
Resource Related Commod./Construction										
Community Centers/Control Posts	0	35000	0	50000	0	35000	0	25000	0	145000
Equipment- Radios, Boats, etc..	0	17500	0	22500	0	17500	0	12500	0	70000
Vehicles, Motorcycles	0	12000	0	23000	0	6000	0	9000	0	50000
Office Supplies, Printing	11500	0	15500	0	15500	0	13500	0	56000	0
Administrative Services	11500	0	12000	0	13000	0	13500	0	50000	0
Travel, Food & Gas, etc.	11500	0	15500	0	15500	0	13500	0	56000	0
Maintenance, Repairs, Misc.	8500	0	10500	0	10500	0	11500	0	41000	0
Uniforms, Field Equipment	6500	1000	7500	3000	7000	3500	6500	2500	27500	10000
Commodities/Construction Subtotal	116500	73500	243000	110500	285500	66000	268000	55000	913000	305000
<b>D. Project Administration</b>										
FPCN Project Administration	75000	22500	75000	27500	75000	30000	75000	30000	300000	110000
FPCN Project Coordinator	19500	0	21500	0	23500	0	25500	0	90000	0
TNC Project Administration	30000	70000	25000	75000	25000	75000	20000	80000	100000	300000
Audits	28000	0	28500	0	29000	0	29500	0	115000	0
Project Adm. Subtotal	152500	92500	150000	102500	152500	105000	150000	110000	605000	410000
<b>E. A.I.D. Management and Oversight</b>										
Evaluations	0	0	40000	0	0	0	50000	0	90000	0
Financial Review	6250	0	6250	0	6250	0	6250	0	25000	0
A.I.D. Management Subtotal	6250	0	46250	0	6250	0	56250	0	115000	0
<b>PROJECT TOTAL</b>	<b>881250</b>	<b>318500</b>	<b>954750</b>	<b>399000</b>	<b>905250</b>	<b>352500</b>	<b>858750</b>	<b>330000</b>	<b>3600000</b>	<b>1400000</b>

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ANNEX C.1

USE OF PROJECT ADMINISTRATION FUNDING  
USAID

FPCN Administration (\$300,000 at an average of \$75,000 per year)

Project Administrative Staff and Related Expenses:

<u>Project Administrative Staff</u>	<u>Cost estimate</u>
Director of Project Accounting	averaging \$ 15,000 per year
Accounting Assistant (1)	averaging \$ 10,000 per year
Data Entry/Computer Technicians (2)	averaging \$ 9,000 per year
Project Logistics Assistant	averaging \$ 6,000 per year
Computer and Office Equipment	averaging \$ 5,000 per year
Administrative Expenses (phone, copies, fax)	averaging \$ 15,000 per year
Project Supervision Expenses (travel, ect)	averaging \$ 15,000 per year

FPCN Project Director (\$90,000 at an average of \$22,500 per year)

FPCN Project Director averaging \$ 22,500 per year

TNC Administration (\$100,000 at an average of \$25,000 per year)

Project Administrative Assistant averaging \$ 25,000 per year

USE OF PROJECT ADMINISTRATION MATCH FUNDING  
T.N.C.

FPCN Administration (\$110,000 at an average of \$27,500 per year)

Project Administration Staff and Related Expenses:

Executive Director	averaging \$ 2,500 per year
Director of Projects	averaging \$ 7,500 per year
Director of Administration and Finance	averaging \$ 2,500 per year
Communications Coordinator	averaging \$ 1,500 per year
Administrative Assistants	averaging \$ 2,500 per year
Messenger/Office Helper	averaging \$ 1,000 per year
Administrative Expenses	averaging \$ 10,000 per year

TNC Administration (\$300,000 at an average of \$75,000 per year)

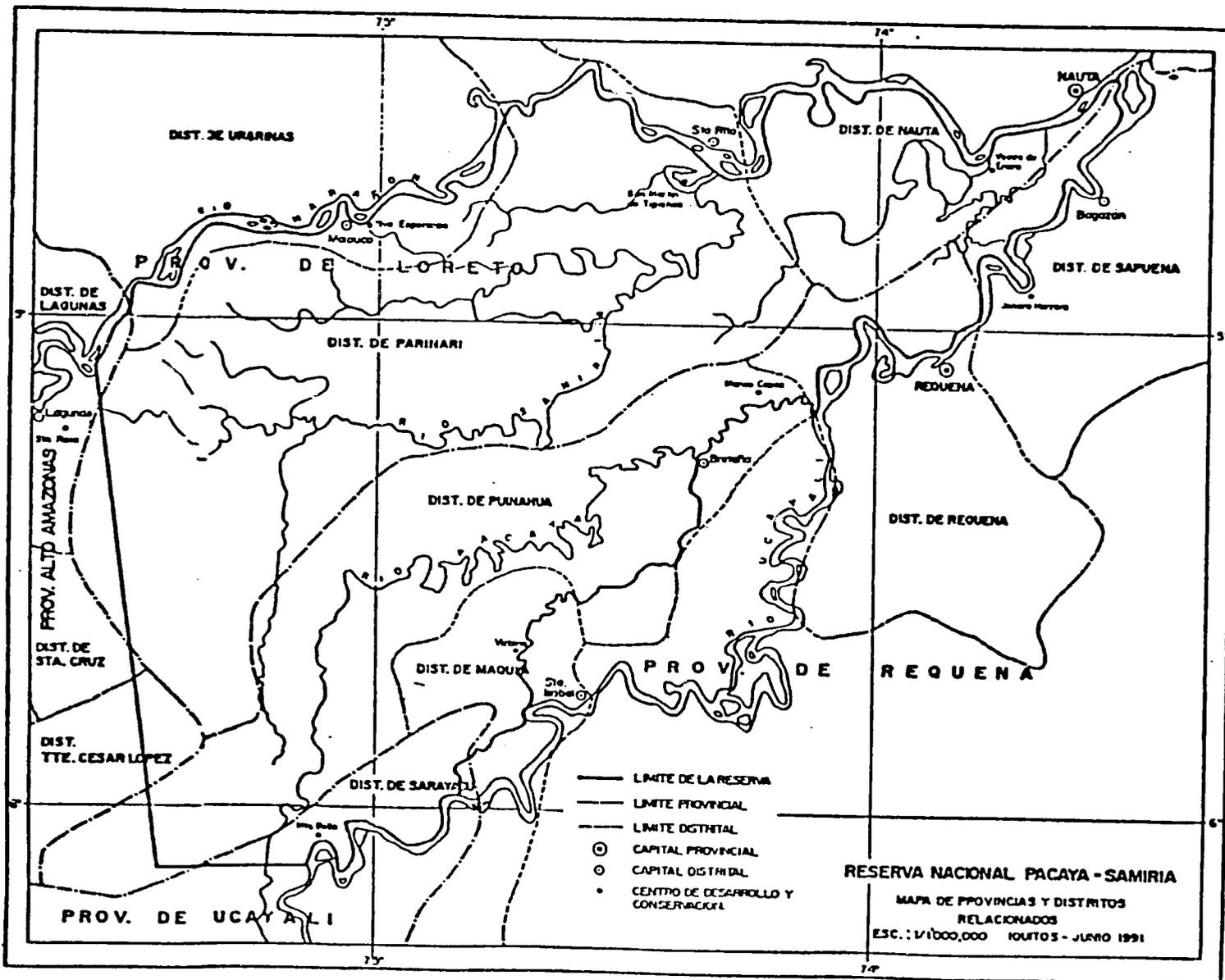
(\*) Project Administrative Staff and Related Expenses (Washington based):

Peru Country Program Director	averaging \$ 40,000 per year
General Administrative Staff	averaging \$ 15,000 per year
Administrative Specialist	averaging \$ 2,500 per year
Land Management Specialist	averaging \$ 7,500 per year
Peru Program Administrative Assistant	averaging \$ 10,000 per year

(\*) TNC does not charge overhead or indirect costs. Administration costs are in-kind matching funds as TNC contribution to the project.

(3195M)

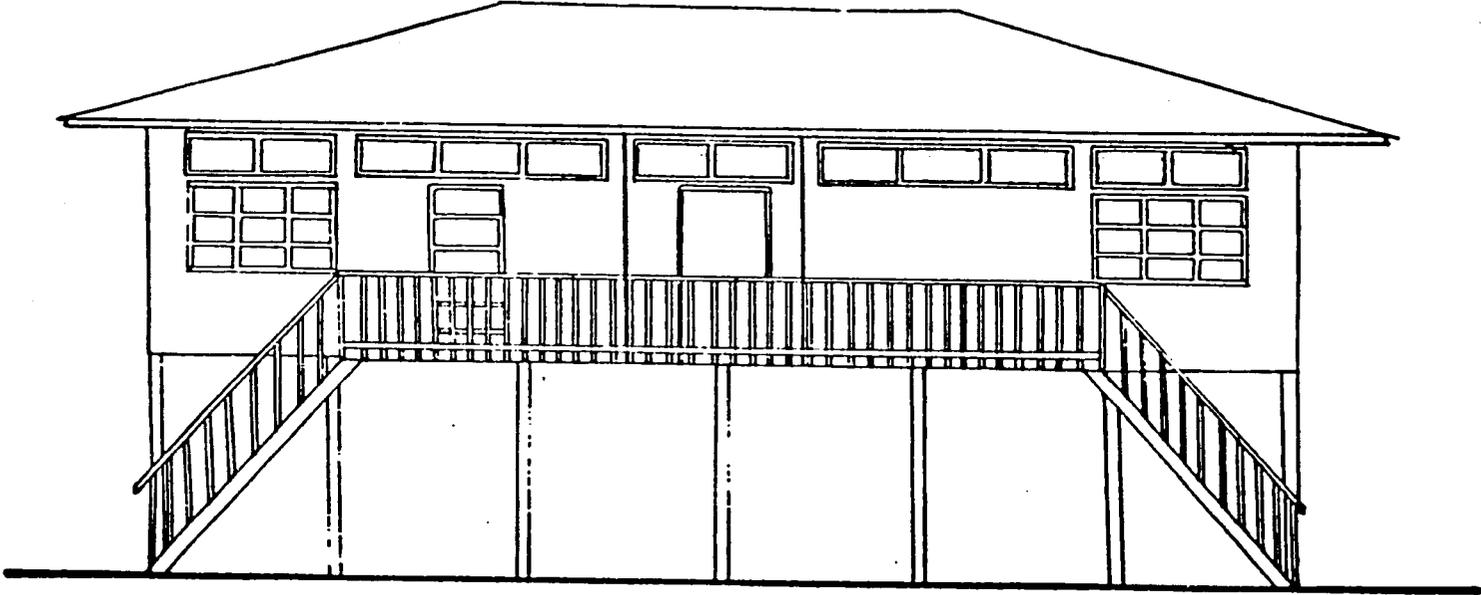
ANNEX D



COMMUNITY CENTER LOCATOR MAP

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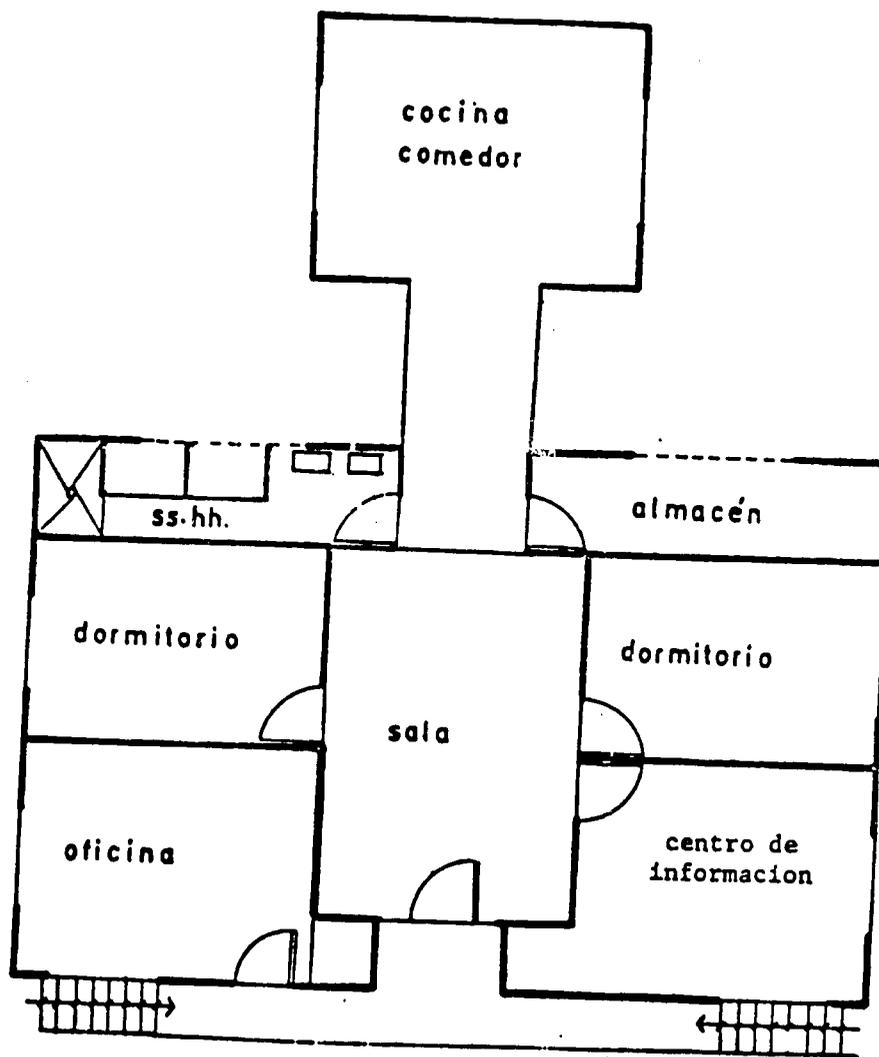
SAMPLE COMMUNITY CENTER/CONTROL POST DESIGN  
ESC. 1:75



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SAMPLE COMMUNITY CENTER/CONTROL POST DESIGN

Esc.: 1/100



70'

**ANNEX F**  
**ABBREVIATIONS**

<b>AA</b>	<b>Asociación Amazonia</b>
<b>ACONA</b>	<b>Asociación para la Conservación de la Naturaleza</b>
<b>ADAR</b>	<b>Asociación para el Desarrollo de la Amazonia Rural</b>
<b>APODESA</b>	<b>Apoyo a la Política de Desarrollo Regional</b>
<b>CAAAP</b>	<b>Centro Amazónico de Antropología y Aplicación Práctica</b>
<b>CDC</b>	<b>Conservation Data Center</b>
<b>CETA</b>	<b>Centro de Estudios Teológicos de la Amazonía</b>
<b>COREPASA</b>	<b>Comite Local de Desarrollo de la Reserva Pacaya- Samiria</b>
<b>DGFF</b>	<b>Dirección General Forestal y Fauna</b>
<b>D.S.</b>	<b>Supreme Decrete</b>
<b>FEDECANAL</b>	<b>Federación de Campesinos y Nativos de Loreto</b>
<b>FPCN</b>	<b>Fundación Peruana para la Conservación de la Naturaleza</b>
<b>Has.</b>	<b>Hectares</b>
<b>IIAP</b>	<b>Instituto de Investigaciones de la Amazonia Peruana</b>
<b>INP</b>	<b>Instituto Nacional de Planificación</b>
<b>IVITA</b>	<b>Instituto Veterinario de Investigaciones del Trópico y de Altura</b>
<b>KM.</b>	<b>Kilometers</b>
<b>MOA</b>	<b>Ministry of Agriculture</b>
<b>ONERN</b>	<b>Oficina Nacional de Evaluacion de Recursos Naturales</b>
<b>ORSTOM</b>	<b>Instituto Frances de Investigacion Cientifica para el Desarrollo en Cooperacion</b>
<b>DNP</b>	<b>National Parks Department (Parques Nacionales Peru)</b>

<b>PSNR</b>	<b>Pacaya-Samiria National Reserve</b>
<b>R.D.</b>	<b>Resolucion Directoral (Directoral Resolution)</b>
<b>SINUC</b>	<b>Sistema Nacional de Unidades de Conservación</b>
<b>SINANPE</b>	<b>Sistema Nacional de Areas Naturales Protegidas por el Estado</b>
<b>SPDA</b>	<b>Sociedad Peruana de Derecho Ambiental</b>
<b>SRAPE</b>	<b>Secretaria Regional de Asuntos Productivos y Extractivos</b>
<b>TNC</b>	<b>The Nature Conservancy</b>
<b>UNAP</b>	<b>Universidad Nacional de la Amazonia Peruana</b>
<b>WWF</b>	<b>World Wildlife Fund</b>

ANNEX G

SUMMARY OF GRANTS TO  
THE NATURE CONSERVANCY  
FROM THE  
U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT

Starting in June 1986 with an A.I.D. grant, A.I.D. and TNC have developed an amicable and productive relationship dedicated to preserving the ecology of the Caribbean, Central and South America, and the South Pacific. In the past five years, A.I.D. has committed \$11,440,318 of its appropriated funds and \$63,550 of local currency trust funds to TNC projects. Other USG agencies' grants and contracts with TNC exceed \$1.6 million. The Nature Conservancy is also currently negotiating with various A.I.D. missions for its participation in A.I.D. projects with life of projects' budgets of approximately \$16.6 million. Currently authorized and recent A.I.D. grants and contracts, to which TNC has committed \$4,705,554 of its own funds include the following:

LAC-0605-G-SS-6049-0: A Conservation Data Center (CDC) support grant for \$266,000 with a TNC matching component of \$475,566. This grant provided partial support to expand and strengthen the Latin American regional network of CDCs and provide training and transfer of technology to and among CDCs. A pilot study for CDC establishment in the South Pacific was also undertaken.

LAC-0605-G-SS-7024: The Yanachaga (Peru) Project grant of \$200,000 with a matching \$200,000 contribution from TNC. This grant helped to initiate the management of the 301,000 acres Yanachaga-Chemillen National Park in the Central Selva region of Peru.

526-0616-G-IR-8001-00: A Fundacion Moises Bertoni support grant of \$15,000 from USAID/Paraguay with a \$20,000 match from TNC. This grant supported the establishment of a financial management system and development of a self-sufficiency program for a new Paraguayan conservation NGO.

520-0000-G-SS-9560-00: A grant from USAID/Guatemala to assist in the development of a CDC within the Center for Conservation Studies (CECON) of the University of San Carlos and to prepare with the National Environmental Commission (CONAMA) studies required to legally establish 14 high-diversity protected areas and their management plans. The A.I.D. grant of US\$100,000 and local currency funds of Guatemalan Quetzales \$107,000 was matched with \$40,595 from TNC.

532-0148-G-SS-0037-00: The Protected Areas Resources Conservation (PARC) grant of \$323,821 with TNC contributing \$223,250 in technical assistance services and support to the Jamaica Conservation and Development Trust in developing a national park system plan, implementation of two pilot parks, creation of a national park endowment, and establishment of a CDC. Anticipated total life of project funding is \$1.75 million.

- 13'

**525-0000-C-00-2007-07(?):** A grant to Fundaci6n Moises Bertoni to strengthen its conservation capacity and support major land management and protection projects. A.I.D./Paraguay provided \$396,563 with a TNC/Fundacion Bertoni match of \$277,668.

**520-0000-C-00-9818-00:** USAID/Guatemala awarded TNC the Resources Warden Training contract which was funded by \$33,000 and local currency funds of Guatemalan Quetzales \$147,187. The purpose of the contract was to assist the National Council of Protected Areas (CONAP) in the preparation of a training manual, preparation of trainers, and implementation of pilot training courses.

**936-5554:** A.I.D. Bureau for Asia and the Near East buy-in of \$65,000 through the Biodiversity Support Program to support TNC in the establishment of a regional Conservation Data Center in Fiji.

**P.O. 525-0000-0-90-0164:** USAID/Panama contracted TNC to revise USAID/Panama's Natural Resources Management Project Paper and its concomitant Log Frame and Financial Plan. USAID/Panama budgeted \$11,700 for this revision work and report.

**OTR-0158-A-00-0112-00:** A grant from A.I.D. office of Private and Voluntary Cooperation (FVA/PVC) to provide for TNC to integrate the conservation of biodiversity with sustainable economic and social development in Belize, Bolivia, Guatemala and Jamaica. A.I.D. is providing \$375,000 while TNC is providing an additional \$416,025.

**LAC-0784-G-00-0048-00:** A grant from A.I.D. Bureau for Latin America and the Caribbean (LAC) to support the establishment and purchase of Mbaracayu Nature Reserve in Paraguay. To achieve this goal, A.I.D. is providing \$500,000 and TNC is providing \$2,250,000.

**P.O. 525-0000-0-90-0297:** USAID/Panama contracted TNC to assist USAID/P/Private Sector Office in fully developing its project implementation plan including identification of implementing agencies with detailed methodology on the institutional strengthening of agencies USAID/P budgeted \$5,929 for this task.

**596-0150-A-00-0843-00:** USAID/Regional Office For Central American Program (ROCAP) awarded TNC a \$188,000 grant to fund ten fellowships in improved environmental and natural resources management. TNC's matching grant portion is \$147,460.

**LAC-0782-A-00-0047-00:** A grant from AID/LAC is to ensure adequate on-site protection for twenty threatened reserves and national parks in Latin America and the Caribbean that have global biological significance. A.I.D. is currently providing \$4,978,526 and additional amounts of \$5,000,000 for 1992 is being considered for earmarking for this grant. TNC is currently providing \$655,000 and host country sources will provide \$345,000 of funding and in-kind contributions.

**518-0069-A-00-0232-00:** A cooperative agreement between USAID/Ecuador and CARE as the lead partner of a CARE-TNC-Wildlife Conservation International consortium designed the

recently approved ten-year \$15 million natural resources project. TNC will sign subcontracts with CARE wherein TNC will carry out specific aspects of the project. In the design phase, A.I.D. committed \$299,651 to this design phase of the project. TNC entered into a subcontract with CARE for \$37,335 which was A.I.D. funded under the cooperative agreement.

596-0150-A-00-0586-00: A cooperative agreement between USAID/ROCAP and CARE as the lead partner of a CARE-TNC-Conservation International consortium commissioned to implement a multifaceted environment preservation project that includes Region Environmental Strategic Planning; Monitoring and Information Dissemination; Regional Environmental Education and Awareness Programs Regional Wildlands Management; and Improved Conservation Information Availability and Use. ROCAP has committed \$5.5 million which must be matched by the recipient, CARE. TNC has signed two subcontracts with CARE wherein TNC has agreed to carry out two aspects of this project. TNC has contracted for the Wildlands Management component of the project for which CARE will reimburse TNC \$1,481,481 and TNC has also contracted for the Improved Conservation Information component for which CARE will reimburse TNC \$462,963.

ANNEX H

IMPLEMENTATION PLAN

(F.Y.1992)

By Sept. 30, 1991	Conservancy- Sign Grant Letter
Oct. 1	Project Start-up Initiate Environmental Assessment Complete Other Pre-Project Conditions Prepare F.Y.1992 Annual Operating Plan Start Job Search for TNC In-Country Director Advisor and FPCN Project
Nov. 15	Hire TNC In-Country Advisor and FPCN Project Director Secure F.Y.1992 Annual Operating Plan Approval from Collaborating Gov. Agencies Define Socio-Economic, Land-Use Management Studies, Identify Implementing Institutions
Nov. 30	Complete E/A Carry out Project Leadership Orientation Start Job Search for Other Project Leadership Carry out Pre-Procurement Preparations (research, order preparation- to get jump on Jan. 1)
By Dec. 30, 1991	E/A Approval by Environmental Officer Complete Trimester Reporting to AID
Jan. 1, 1992	Initiate Socio-Economic, Land-Use Management Studies Start Hiring Other Project Leadership Develop Construction Plans Initiate Procurement Plans Start Job Search for Community Extensionists Start Job Search for Reserve Conservationists
Feb. 1	Continue Project Leadership Orientation Project Leadership Move into FPCN Iquitos Office Complete F.Y.1992 Construction Plans Continue Procurement Plans Start Hiring Reserve Conservationists Begin Hiring Community Extentionists

**Mar. 1**                   **Studies Begin Field Work**  
**Select Construction Sites**  
**Continue Procurement**  
**Initiate Community Extentionist Training**  
**Initiate Reserve Conservationist**  
**Training**

**April 1**                   **Complete S.A.R Reporting to AID**  
**Complete Project FPCN Iquitos Office Set-up**  
**Begin Construction Sites Preparation**  
**Begin Control Post Site Preparation**  
**Continue Procurement**  
**Continue Community Extentionist Training**  
**Continue Reserve Conservationist**  
**Training**

**May 1**                    **Continue Community Center Site**  
**Preparation**  
**Continue Control Post Site Preparation**  
**Continue Procurement, Initiate Transport**  
**Continue Community Extentionist Training**  
**Continue Reserve Conservationist**  
**Training**

**June 1**                   **Receive Studies Progress Reports**  
**Begin Community Center Construction**  
**Begin Control Post**  
**Construction/Improvement**  
**Continue Procurement, Continue Transport**  
**Continue Community Extentionist Training**  
**Continue Reserve Conservationist**  
**Training**

**July 1**                   **Complete Trimester Reporting to AID**  
**Receive Studies Drafts**  
**Continue Community Center Construction**  
**Continue Control Post Construction/**  
**Improvement**  
**Continue Procurement, Continue Transport**  
**Continue Community Extentionist Training**  
**Continue Reserve Conservationist**  
**Training**

**August 1**               **Studies Complete Field Work**  
**Continue Community Center Construction**  
**Continue Control Post Construction/**  
**Improvement**  
**Continue Procurement, Continue Transport**  
**Continue Community Extentionist**  
**Training**  
**Get Community Extentionists Into Field**  
**Continue Reserve Conservationist**  
**Training**

**September 1**

**Complete S.A.R Reporting to AID  
Receive Studies Drafts/Distribute  
Findings  
Continue Community Center Construction  
Continue Control Post  
Construction/Improvement  
Continue Procurement, Continue Transport  
Community Extentionists Begin Community  
Contacts  
Continue Reserve Conservationist  
Training  
Install Reserve Conservationists at  
Sites  
Prepare F.Y. 1992 Annual Operating Plan**

**October 1**

**Wrap-up F.Y. 1992 Construction  
Carry out Annual Audit  
Begin F.Y. 1993 Activities  
Receive Studies Drafts/Distribute  
Findings  
Continue Procurement, Continue Transport  
Community Extentionists Continue  
Community Contacts  
Reserve Conservationists Begin Duties**

ANNEX I

TRAINING AND TECHNICAL ASSISTANCE PLAN

Training and technical assistance will be offered to community leaders and Project staff in natural resources management; parks design and management; community organization and institutional development; community business organization and operation; and production, marketing, and business operations on a small scale.

The following groups are specifically targeted to receive technical assistance and training: 1) community selected, income-increasing activity leaders from the 18 participating communities; 2) the six community extensionists; 3) the 25 Reserve conservationists; and 4) Project leadership staff.

Aside from Project staff, the sources of training and technical assistance will include representatives from Conservancy staff, the Conservancy's Latin America NGO partnership network (e.g. BIOMA, ANCON, WWF, CARE, SPDA), and outside experts as needed. Where appropriate, local organizations such as IIAP and UNAP will be involved for carrying out training and technical assistance programs.

1. COMMUNITY LEADERS

A significant percentage of the work of the community extensionists will be to provide training and technical assistance to the community leaders of communities participating in the income-increasing activities of the project. This training and technical assistance will be primarily on-site and on-going and will take the form of both informal and formal training and technical assistance.

On-site Training and Technical Assistance

Location:	Community-based
Carried out by:	Community Extensionists and Short-term Advisors with expertise in small business development, financial management, marketing, fisheries, agroforestry, wildlife management, community organization, facilities construction, and anthropology
Duration:	Length of start-up of each income-increasing activity
Target Group:	360 Community Representatives (20 per community)
Cost:	\$185,000 (32 person-months)

Description: The community-selected income-increasing activity leaders will be chosen from 18 communities. The community extensionists and Community Development Director will design and carry out a training and technical assistance program regarding specific training focused upon building skills needed for project supported income-increasing activities. This will include community-based training and technical assistance to be carried out by the community extensionist and technical advisors to be organized by the Community Development Director. It is expected that at least 360 community representative (estimated at 20 people per community) will receive the direct training and technical assistance by the community extensionists.

Central or Off-site Training

Location: Jenaro Herrera Center  
Carried out by: Community Extensionists and Short-term Advisors with expertise in small business development, financial management, marketing, fisheries, agroforestry, wildlife management, community organization, facilities construction, and anthropology  
Duration: Two-four week periods  
Target Group: 36 Community Leaders (12 per year)  
Cost: \$50,000 (8 person-months)

Description: As described above, the community extensionists and Community Development Director will design and carry out a training program focused upon building skills needed for project supported income-increasing activities. This training will involve centrally located training to be organized by the Community Development Director. It is expected that at least thirty-six other leaders (two per community) will receive the more comprehensive centrally located training.

2. COMMUNITY EXTENSIONISTS

Off-site Training

Location: Jenaro Herrera/Iquitos  
Carried out by: Project leadership staff and Short-term Advisors with expertise in project administration, public relations, small business development, marketing, fisheries, agroforestry, wildlife management, community organization, and anthropology  
Duration: Five months  
Target Group: 6 Community Extensionists  
Cost: \$75,000 (13 person-months)

Description: The community extensionists will receive and intensive training over a period of six-months during the first year of the Project in a program to be designed by the Community Development Director, the FPCN Project Director and the Conservancy's In-Country Advisor. This program will be directed by the Community Development Director. The training will focus on ensuring that the extensionists have the basic skills needed to work productively with the local communities which will include: 1) the development and maintenance of positive community relations; 2) building consensus through the participatory decision-making process; 3) project administration; 4) the socio-economic status of the region; 5) the use of the reserve's resources and conservation laws and practices; and 6) the use and care of field equipment.

On-site Technical Assistance

**Location:** Project Sites  
**Carried out by:** Project leadership staff and Short-term Advisors with expertise in project administration, public relations, small business development, marketing, fisheries, agroforestry, wildlife management, community organization, and anthropology  
**Duration:** Length of project  
**Target Group:** 6 Community Extensionists  
**Cost:** \$82,000 (14 person-months)

**Description:** The community extensionists will receive technical assistance during the length of the Project in a program to be designed by the Community Development Director, the FPCN Project Director and the Conservancy's In-Country Advisor. This technical assistance program will be directed by the Community Development Director and will focus on specific implementation of Project supported income-increasing activities.

3. RESERVE CONSERVATIONISTS

Training

**Location:** Jenaro Herrera/Iquitos  
**Carried out by:** Community Extensionists and Short-term Advisors with expertise in wildlife management, parks and land management, ecology, public relations, facilities construction and maintenance, first aid, field orientation and equipment usage  
**Duration:** Five months  
**Target Group:** 25 Reserve Conservationists (15 in year one, 10 in year two)  
**Cost:** \$48,000 (8 person-months)

**Description:** The Reserve conservationists will receive five-month training during the first year of the project to be designed by the Conservation Director, the FPCN Project Director and the Conservancy's In-Country Advisor. This program will be directed by the Conservation Director and will include: 1) the development and maintenance of positive community relations; 2) the use and care of field equipment; 3) the basics of ecology and natural area management, to include explaining why the Reserve is important; 4) Peru's conservation laws; 5) first aid; and 6) river navigation and field orientation. The training program of the Reserve conservationists will include the preparation of materials, such as a Conservationist Manual.

On-site Technical Assistance

**Location:** Reserve Control Posts  
**Carried out by:** Project leadership staff and Short-term Advisors with expertise in wildlife management, parks and land management, ecology, public relations, facilities construction and maintenance, first aid, field orientation and equipment usage

**Duration:** Length of project  
**Target Group:** 25 Reserve Conservationists  
**Cost:** \$80,000 (13 person-months)

**Description:** The Reserve conservationists will receive technical assistance throughout the four years of the project through a program to be designed by the Conservation Director, the FPCN Project Director and the Conservancy's In-Country Advisor. This program will be directed by the Conservation Director and will focus on key aspects of the management of the Pacaya-Samiria Reserve and its natural resources.

#### 4. PROJECT LEADERSHIP STAFF

##### On-site Technical Assistance

**Location:** Various Project Sites  
**Carried out by:** TNC In-Country Advisor/FPCN Project Director and short-term advisors with expertise in project administration, small business development, marketing, fisheries, agroforestry, wildlife management, community organization, anthropology, reserve design, wildlife management, parks and land management, ecology, hydrology, environmental monitoring and impact assessment, habitat conservation, and facilities construction and maintenance

**Duration:** Length of project  
**Target Group:** Project Directors of Community Development and Conservation  
**Cost:** \$138,000 (23 person-months)

**Description:** The Project Leadership staff will receive technical assistance during the length of the Project in a program to be designed by the FPCN Project Director and the Conservancy's In-Country Advisor. This technical assistance program will be directed by these same staff utilizing outside advisors. It will focus on necessary aspects key to the implementation of all Project supported programs to include income-increasing activities and the management of the Pacaya-Samiria Reserve.

##### Training

**Location:** Various Latin Countries  
**Carried out by:** TNC Staff, INC NGO partners and Short-term Advisors with expertise in project administration, small business development, marketing, fisheries, agroforestry, wildlife management, community organization, anthropology, reserve design, parks and land management, ecology, hydrology, environmental monitoring and impact assessment, habitat conservation, and facilities construction and maintenance

**Duration:** One week of each the four project years  
**Target Group:** Project leadership staff  
**Cost:** \$20,000 (3 person-months)

**Description:** The Project staff will receive attend The Nature Conservancy's International Skills Training Program as appropriate. This one-week program brings project staff from partner organizations throughout Latin America to share and learn community development and land management skills.

5. FINANCE/DEBT SWAP

On-site Technical Assistance and Training

**Location:** Lima and Iquitos  
**Carried out by:** TNC Financial Mechanisms/Debt Swap Experts, TNC Peru Country Program Director and short-term advisors  
**Duration:** Length of Project  
**Target Group:** Project Directors of Community Development and FPCN leadership  
**Cost:** \$60,000 (10 person-months)

**Description:** FPCN and other NGO's will receive technical assistance and training during the length of the Project in a program to be designed by the TNC's two financial mechanisms/debt swaps experts. This program will be organized by TNC Peru Country Program Director (Dan Quinn holds this position) utilizing TNC's experts and outside advisors. It will focus on the establishment of long-term funding mechanisms aimed at financing the recurring costs of the management of the resources of the Pacaya-Samiria National Reserve.

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TRAINING AND TECHNICAL ASSISTANCE

Given the rolling design concept of this project, each activity will ultimately be developed based on the results of the environmental assessment and ensuing diagnostic studies. Based on information compiled and data analyses of design fact finding trips, the following expertise (approximately 124 person/months) will likely be called upon to lend training and technical assistance which will be detailed in the Annual Work Plan:

A. Sciences

1. Fisheries
2. Agroforestry
3. Wildlife Management
4. Anthropology
5. Parks and Land Management
6. Ecology
7. Hydrology
8. Reserve Design
9. Environment Monitoring and Impact Assessment
10. Habitat Conservation

B. Community and Market Development

1. Small Business Development
2. Project Administration
3. Financial Management
4. Marketing
5. Community Organization
6. Facilities Construction/Maintenance
7. Public Relations

C. Other

1. First Aid
2. Financial Mechanism Debt Swap
3. Field Orientation and Equipment Use

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## LETTER OF INTENTION BETWEEN TNC/FPCN

Carta de Intención

Mediante la presente Carta de Intención, The Nature Conservancy (TNC) y la Fundación Peruana para la Conservación de la Naturaleza (FPCN) resuelven trabajar conjuntamente en el diseño de un proyecto de uso sostenible de recursos naturales renovables en y alrededor de la Reserva Nacional, Pacaya Samiria. Los términos y condiciones para esta propuesta se detallan a continuación y si es necesario esta Carta será acompañada por los anexos pertinentes.

1. Se diseñará un proyecto de promoción del uso sostenible de recursos naturales renovables en el área de influencia y en la Reserva Nacional Pacaya Samiria, orientado tanto a conservación de los mismos como a generar beneficios económicos y de mejora de la calidad de vida de las poblaciones aledañas mediante trabajo conjunto con las comunidades locales. Por su naturaleza el proyecto propuesto deberá incluir coordinación estrecha con la autoridad nacional de Parques, las autoridades regionales, las comunidades participantes y otras ONGs nacionales o internacionales que puedan aportar al desarrollo del proyecto.
2. Se elaborará un plan de trabajo para el proyecto, tan pronto se confirme la aprobación del financiamiento, que describirá el área protegida, especificará el alcance del trabajo a realizarse, proveerá una agenda de actividades y una lista de los resultados que se esperan. También se anexará un presupuesto que detallará todos los gastos a realizarse en el proyecto. Para que cualquier cambio en la presente Carta de Intención tenga valor, la parte interesada deberá notificar previamente por escrito y obtener la aprobación del señor Daniel Quinn, Coordinador del Programa del Perú de TNC.
3. Esta Carta de Intención entrará en vigor a partir del momento en que ambas partes la firmen y durará por un periodo de seis meses ó hasta que el proyecto se inicie, momento en el cual se procederá a una extensión o a la firma de un nuevo acuerdo una vez aprobado el plan de trabajo. Si al término de los seis meses fijados no se ha formalizado la aprobación del proyecto se podrá extender la vigencia de esta Carta, previo acuerdo de las partes.
4. Se resuelve que la FPCN elaborará informes narrativos trimestrales y un informe narrativo detallado a la

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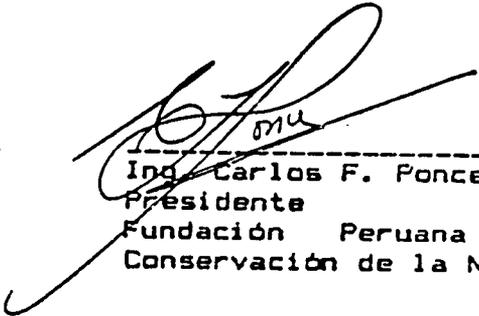
conclusión de cada año del proyecto propuesto que relacionen el progreso del mismo. Todos los informes se dirigirán al señor Daniel Quinn.

5. De igual forma se determina que la FPCN se encargará de preparar informes financieros trimestrales los cuales rendirán cuentas de los gastos incurridos y el total del dinero recibido (incluyendo la contrapartida) para el futuro del proyecto. Igualmente, al plazo de 90 días de la conclusión del proyecto, la FPCN elaborará el informe financiero final. Estos informes deberán seguir los formatos y lineamientos para informes que TNC proporciona para este propósito y acompañarán a los informes narrativos.
6. Se entiende y se resuelve que la FPCN mantendrá registros financieros detallados del futuro proyecto. The Nature Conservancy tendrá el derecho de acceso a cualquier libro, documento, papel o registro pertinente a los programas especificados en este contrato a fin de realizar una auditoría, inspección o transcripción. En el caso de que se empleen fondos de USAID para este proyecto, la FPCN concederá el mismo derecho de acceso a USAID, al Contralor General de los Estados Unidos o a cualquier entidad autorizada para los mismos fines.
7. La FPCN hará entrega a The Nature Conservancy de una copia verificada por un auditor de su estado de cuentas anual. En caso que se empleen fondos de USAID para este proyecto, la FPCN también cumplirá con los siguientes requisitos de USAID:
  - a. Una carta de gerencia preparada por auditores en la que se haga una evaluación de los controles de contabilidad internos de la FPCN en relación al contrato y las provisiones reglamentarias que se incluyen en las circulares OMB, A-110 y A-122.
  - b. Cobertura de bonos de fidelidad. El costo de esto es un gasto permitido dentro del contrato con USAID.
8. Cualquiera de las partes podrá denunciar la presente Carta de Intención sin explicación, debiendo necesariamente hacer una notificación escrita. Pasados los 30 días de la presentación de dicha notificación la carta queda rescindida. En caso de denuncia, se reembolsará a la FPCN por gastos reales y apropiados que haya incurrido para la preparación del referido proyecto. Si el posible anticipo de fondos suministrados a la FPCN para el proyecto no fuera gastado en su totalidad, la FPCN deberá devolver a The Nature Conservancy el sobrante.

9. Se entiende, y ambas partes concuerdan, que se mencionará a The Nature Conservancy en publicaciones, cobertura de prensa, etc. haciendo hincapié, cuando sea apropiado, en la participación y el aporte de esta organización en el proyecto.

Las firmas a continuación verifican la aceptación de todos los requisitos mencionados en la presente Carta de Intención.

-----  
Geoffrey S. Barnard  
Vice Presidente  
The Nature Conservancy

  
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Ing. Carlos F. Ponce  
Presidente  
Fundación Peruana para la  
Conservación de la Naturaleza

Fecha: -----

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## GENERAL COOPERATIVE AGREEMENT BETWEEN FPCN/GOP

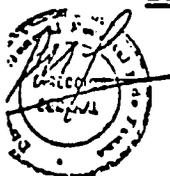
CONVENIO MARCO GENERAL DE COOPERACION PARA LA CONSERVACION  
DE LA DIVERSIDAD BIOLOGICA DEL PERU CELEBRADO  
ENTRE LA DIRECCION GENERAL DE FORESTAL Y FAUNA (DGFF)  
Y LA FUNDACION PERUANA PARA LA CONSERVACION DE LA  
NATURALEZA (FPCN)

Conste por el presente documento el convenio que celebran de una parte la Dirección General Forestal y de Fauna del Ministerio de Agricultura, representada debidamente por su Director General Ing. MANUEL UCEDA CASTILLO, designado mediante Resolución Ministerial No. 01155-90-AG-DGFF identificado con L.E. No. 07851640 y con domicilio en Natalio Sánchez #220, of. 304, Jesús María, que en lo sucesivo se denominará "DGFF" y de la otra la Fundación Peruana para la Conservación de la Naturaleza, inscrita en los Registros Públicos con ficha No. 6920, asiento No. 1 reconocida oficialmente e inscrita en el Registro General Administrativo de Fundaciones del Ministerio de Justicia con el No. 107, con L.T. No. 94H3829 representada por su Presidente Ing. CARLOS F. PONCE, identificado con L.E. No. 07839874, domiciliado en Chinchón 858-A, que en lo sucesivo se le denominará "La Fundación" o "la FPCN" en los términos y condiciones siguientes:

DE LAS PARTES

PRIMERA.- La Dirección General Forestal y de Fauna (DGFF) es el órgano del Ministerio de Agricultura que propone la política nacional relativa a la conservación y aprovechamiento racional de los recursos forestales y de la flora y fauna silvestres, excepto los hidrobiológicos, así como a la transformación primaria y comercialización de sus productos y supervisa y evalúa su ejecución. Propone y, en su caso, emite la normatividad sectorial correspondiente.

SEGUNDA.- La Fundación Peruana para la Conservación de la Naturaleza (FPCN) es una organización no gubernamental sin fines de lucro, que tiene por misión contribuir a la conservación, entendida como uso sostenible de los recursos naturales, como son los suelos, las aguas, la flora y la fauna, en todo el territorio peruano. La FPCN está debidamente inscrita en el Registro General Administrativo de Fundaciones con el No. 111; en los Registros Públicos con ficha 6920, asiento No. 1. Se encuentra inscrita en el Ministerio de Economía y Finanzas en el Registro de Entidades Exoneradas del Impuesto a la Renta, Tomo VIII, folio 057, No. 3257 y en el Registro de Entidades Perceptoras de Asignaciones Cívicas Deducibles del Impuesto a la Renta, Tomo V, folio 020, No. 1399. Está registrada como Institución Privada Beneficiaria de Recursos Provenientes de Cooperación Técnica Internacional en las Areas de Bienestar Social y Cultural, por Resolución Jefatural No. 010-86-INP-DT, del



Instituto Nacional de Planificación.

DE LOS OBJETIVOS

TERCERA.- El objetivo general del presente convenio es definir el marco normativo dentro del cual, y a través de acuerdos específicos, las partes concertarán esfuerzos para la ejecución de actividades, proyectos y programas tendientes a la conservación de los recursos naturales renovables y de la diversidad biológica del Perú.

CUARTA.- Son objetivos específicos del presente convenio agrupar esfuerzos para contribuir al:

- a) Desarrollo y consolidación del Sistema Nacional de Areas Naturales Protegidas por el Estado.
- b) Desarrollo de proyectos y programas de manejo de recursos de flora y fauna silvestre en áreas no protegidas por el Estado, así como de promoción del uso racional y desarrollo sostenido fundamentalmente con comunidades nativas y pequeños productores.
- c) Desarrollo de proyectos y programas de investigación conducentes a cumplir el objetivo del convenio.
- d) Desarrollo y consolidación institucional de la Fundación y de la DGFF.
- e) Los demás que se señalen en este convenio o en sus adendas.

DE LAS OBLIGACIONES

  
QUINTA.- Son obligaciones de la FPCN:

- a) Participar en la elaboración de los programas y proyectos que se ejecutarán en el marco del presente convenio, así como de los respectivos planes operativos anuales.
- b) Promover y realizar las acciones conducentes a captar y canalizar los recursos económicos externos o internos requeridos para la ejecución de los proyectos y programas indicados en el inicio de esta cláusula.
- c) Participar en la planificación, evaluación, conducción y supervisión de los proyectos y programas considerados dentro del presente convenio.
- d) Como donatario, administrar los fondos captados según lo

prescrito en los programas y proyectos acordados, así como en los respectivos planes operativos anuales, informando, en detalle y permanentemente, a la DGFF y a los donantes según lo establecido para cada caso.

SEXTA.- Son obligaciones de la DGFF:

- a) Realizar todas las gestiones oficiales que se requieran para la ejecución de los programas y proyectos, en el ámbito de su competencia.
- b) Participar en la elaboración de los programas y proyectos que se ejecutarán en el marco del presente convenio y de los respectivos planes operativos anuales.
- c) Evaluar y supervisar el desarrollo de los programas y proyectos.
- d) Promover cuando sea necesaria la participación de otros organismos del sector público.
- e) Atender, tramitar y responder las solicitudes, peticiones y sugerencias que la FPCN formule dentro del marco del presente convenio.
- f) Respalda formalmente los requerimientos de fondos a las instituciones donantes o colaboradoras, o fuentes financieras en general, que la FPCN efectúe para el desarrollo de los programas o proyectos que se ejecutarán como parte del presente convenio.

CONSIDERACIONES SOBRE ASPECTOS OPERATIVOS



SEPTIMA.- Para la ejecución de las actividades, programas o proyectos, materia del presente convenio se firmarán acuerdos específicos entre las partes, los cuales deberán estar debidamente presupuestados y cronogramados.

OCTAVA.- A fin de asegurar la más fluida comunicación para propósito de intercambio de información; elaboración y seguimiento de planes de trabajo y ejecución oportuna de las diferentes actividades de los proyectos y programas, se realizarán reuniones de coordinación entre la DGFF a través de sus respectivas direcciones de línea y la Fundación, mensualmente como mínimo, o más frecuentes si se ve por necesario para la mejor marcha del trabajo. Se llevará acta simple de las sesiones y su elaboración será rotativa entre las partes.

NOVENA.- Las propuestas de proyectos, que pueden ser originadas tanto en la DGFF como en la FPCN deberán estar acordes

con los objetivos y prioridades de ambas instituciones, siendo definida esta situación en las reuniones de coordinación especificadas en la cláusula octava. Los proyectos o programas aprobados mediante acuerdo específico serán ejecutados ajustándose las partes en cuanto al uso de fondos al acuerdo que se suscribe para cada caso entre la institución donante o colaboradora y la FPCN, será puesto en conocimiento de la DGFF.

DECIMA.- La DGFF designará al funcionario responsable de la coordinación y/o ejecución de cada proyecto. La FPCN, de manera similar, designará su respectiva contraparte.

DECIMA PRIMERA.- En caso de necesidad de contratación de personal adicional para trabajo directo en los proyectos, los acuerdos específicos incluirán disposiciones respecto a si el personal deberá ser contratado por la FPCN y destacado al proyecto o bien la FPCN proporcionará los fondos para que la DGFF contrate directamente el personal.

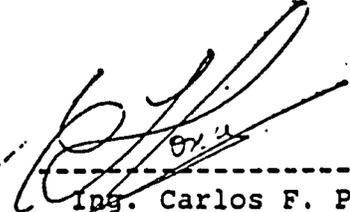
DECIMO SEGUNDA.- En virtud del presente convenio la DGFF priorizará la atención de los informes y/o denuncias mediante los cuales la FPCN le alerte de hechos que atenten la conservación de los Recursos Naturales, disponiendo la DGFF de acciones de supervisión inmediatas para cuya realización la FPCN se compromete a brindar el apoyo logístico y de transporte necesarios.

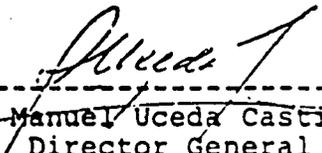
DE SU DURACION, CONCLUSION Y RENOVACION

 DECIMO TERCERA.- La duración del presente convenio es de tres (03) años calendario contados a partir de la fecha de su suscripción, pudiendo ser renovado por otros períodos iguales, indefinidamente. Se renovará automáticamente si ninguna de las partes expresa deseo en contrario, con tres meses de anticipación a su fecha de conclusión.

DECIMO CUARTA.- El incumplimiento de cualquiera de las partes será causal de resolución del presente convenio para lo cual la parte afectada procederá a comunicar con anticipación de 30 días calendario su deseo al respecto, elaborándose un programa de acciones que garantice la conclusión de los trabajos iniciados. En caso que la institución financiera o cooperante de algún programa o proyecto específico, por razones ajenas a las partes, limitara o concluyera su apoyo, esto no será considerado como incumplimiento del presente convenio por las partes.

Las partes declaramos estar conformes con todo lo estipulado en el presente convenio y procedemos a suscribirlo en señal de asentimiento, en la ciudad de Lima, a los Nueve días del mes de Noviembre de mil novecientos noventa.

  
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Ing. Carlos F. Ponce  
Presidente  
Fundación Peruana para la  
Conservación de la Naturaleza

  
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Ing. Manuel Uceda Castillo  
Director General  
Dirección General  
de Forestal y  
Fauna

CARTA DE ENTENDIMIENTO

SUSCRITA ENTRE

EL PROGRAMA NACIONAL DE MANEJO DE PARQUES NACIONALES Y OTRAS  
AREAS NATURALES PROTEGIDAS POR EL ESTADO (PARQUES NACIONALES-  
PERU) Y LA FUNDACION PERUANA PARA LA CONSERVACION  
DE LA NATURALEZA

SOBRE

LA POSIBLE COLABORACION ENTRE AMBAS INSTITUCIONES PARA EL  
DESARROLLO DE UN PROGRAMA DE APOYO A LA RESERVA NACIONAL  
PACAYA SAMIRIA

Conste por la presente Carta de Entendimiento que suscriben el Programa Parques Nacionales-Perú y la Fundación Peruana para la Conservación de la Naturaleza la buena disposición de las partes para continuar un proceso de coordinación orientado a la formulación y posterior aplicación de un programa de apoyo a la Reserva Nacional Pacaya Samiria, en los términos siguientes:

1. La Reserva Nacional Pacaya Samiria, que cubre 2'080,000 has. y está ubicada en la Región del Amazonas, constituye parte del Sistema Nacional de Parques Nacionales y otras Areas Naturales Protegidas por el Estado (SINANPE). Fue establecida en 1982 con la finalidad de conservar flora y fauna representativas de la selva baja y desarrollar programas de utilización racional de la fauna silvestre. Actualmente existen limitaciones en el manejo de esta Reserva Nacional por lo que se requiere reforzar las acciones tendientes a convertirla a lograr sus objetivos de conservación. Resulta particularmente importante destacar el potencial del área para servir de núcleo a un proceso de desarrollo e incremento del nivel de ingresos y calidad de vida de la población vecina a la Reserva, que aprovecha recursos dentro y alrededor de la misma.
2. Las partes consideran apropiada la formulación de un programa de desarrollo y conservación, basado en el uso sostenible de recursos naturales renovables en la zona de influencia de la Reserva Nacional Pacaya Samiria, así como un más optimizado manejo de la Reserva y sus recursos. Para esto, concuerdan en la necesidad de coordinar acciones entre sí y con el Gobierno Regional del Amazonas y otras instancias gubernamentales nacionales y regionales, organizaciones no gubernamentales, regionales, nacionales o internacionales y con la población local, para diseñar y ejecutar un programa

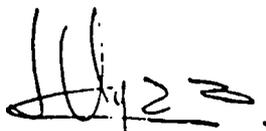
conjunto de trabajo capaz de lograr la conservación a largo plazo de los recursos renovables en la zona de Pacaya Samiria, al tiempo que mejorar la calidad de vida de la población allí asentada.

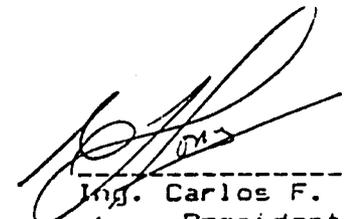
3. Una vez formulado el programa y asegurado su financiamiento, PN-Perú, la FPCN y otras partes interesadas, suscribirán el o los respectivos convenios que posibiliten la ejecución del indicado programa.

En fe de lo cual se suscribe esta Carta de Entendimiento, en dos copias igualmente válidas, a los 22 días del mes de agosto de 1991.

Por PN-Perú

Por la FPCN

  
-----  
Ing. Jorge Ugaz Gomez  
Director General Ejecutivo

  
-----  
Ing. Carlos F. Ponce  
Presidente

ANNEX L

FPCN'S COMMUNITY DEVELOPMENT/INCOME INCREASING EXPERIENCE

FPCN is currently carrying out park management activities in nine of Peru's 25 national parks and reserves. In most projects, FPCN works with local communities on rational natural resource use, some of which are aimed at sustainable income generation. Community development projects are currently being carried out in or around Manu National Park, Yanachaga National Park, Rio Abiseo National Park, Cerros de Amotape National Park, Manglares National Sanctuary, and Huascarán National Park. In the last four years, FPCN has also worked with local communities around Paracas National Sanctuary and Machu Picchu National Historical Sanctuary. The following list outlines FPCN's most significant experience:

**MANU NATIONAL PARK:** FPCN began work in the two million acre Manu National Park in 1985. Since 1986 FPCN has provided staff time, technical assistance, and financial support to the rural native communities around Manu in the following projects: 1) implementation of a rural development project funded by GORTA; 2) support to the agrarian production program in the community of Palotoa Llacapampa of 230 people; 3) establishment of community health programs including vaccinating 90% of the area's children; 4) development of environmental education programs for local schools; and 5) active community participation in the park master plan development and planning processes through local workshops.

FPCN has also carried out socio-economic studies and prepared a proposal with local communities for the establishment of a Communal Reserve for the native indigenous populations in an area near the park.

**YANACHAGA NATIONAL PARK/YANESHA COMMUNAL RESERVE:** FPCN's Forestry Management Program began work with Yanesha Forestry Cooperative in 1988 primarily through the provision of technical assistance. This assistance has continued to 1991 in the areas of: strip forestry management, production techniques, merchandizing and marketing, extension and training, and equipment maintenance. In addition, short-term technical assistance has been provided regarding: business management, accounting, machine operations and maintenance, and wood post preservation. FPCN has also provided some working capital.

FPCN also worked with Yanesha community to establish the first national Communal Reserve in Peru in an area adjacent to the Yanachaga National Park.

**NORTHWEST BIOSPHERE RESERVE:** FPCN's Forestry Management Program has established a forestry cooperative with a local community to carry out a pilot sustainable forestry project in a 1,700 acre forest as an development alternative. The development activities are focusing on the harvesting and processing of firewood, charcoal, vegetable wool, and honey. In its first year, the first 150 acre pilot plot generated \$1,500 with three of five components generating income.

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**MANGLARES NATIONAL SANCTUARY:** FPCN has aided the organization of local businessmen to form the Association of Scallop Extractors. It has also worked with the Association of Shrimp Larva Extractors in mangrove forest conservation and to begin the replanting of mangrove forests.

**CERROS DE AMOTAPE NATIONAL SANCTUARY/BOSQUE DE TUMBES:** FPCN has worked with several local communities regarding water and fuel wood conservation, and has carried out the following: the construction of cisterns, installation of a water pump; and installation of bee hives; and the construction of a school classroom. Communities have become involved in the vigilance of the park through the construction of three community-based control posts.

**RIO ABISEO NATIONAL PARK:** Since 1986, FPCN has worked with various neighboring communities on development activities. Two communities, totaling 3,000 people, were burning pastures and their cattle were overgrazing communal land and entering park lands to graze. To decrease pasture and park degradation, the national government offered alpacas to the communities. FPCN provided technical advise, animal transportation, and vaccinations. Other activities have included developing a community organization, a campaign to involve three communities in park management, and environmental education in local schools.

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<i>Employment Promotion Activities 3</i>							
<b>Improvements in Dry-salt processing for Fish Preservation</b>							
total	a. potential participants	b. current value of production per participant (year)					
	2,850	2,831					
1,710	b. selected participants	d. expected increase in production per participant					
	60% 1,710	35% 990 3,822					
675,000	e. total beneficiaries	11,968					
	f. yearly participants	1st year	2nd year	3rd year	4th year	5th year	6th year
		256	598	598	256	0	0
	% of total	15%	35%	35%	15%	0%	0%
	accumulated	256	855	1,453	1,710	1,710	1,710
	g. fixed investment per participant	395					
	h. total fixed investment per year	6 units					
2,549,996	i. total processing inputs requirements per year	112,500	225,000	225,000	112,500	0	0
566,666	j. net credit requirements for inputs purchasing-4 years	85,000	283,333	481,666	566,666	566,666	566,666
1,241,666	k. total financial requirements per year	85,000	198,333	198,333	85,000	0	0
2,965,230	l. projected current value of production	197,500	423,333	423,333	197,500	0	0
	m. expected additional value of production per year	8,472,087	8,895,691	9,340,476	9,807,499	10,297,674	10,812,768
	n. expected accumulated additional production per year	444,785	1,037,831	1,037,831	444,785	0	0
2,965,230	o. expected increase in total incomes of participants	444,785	1,482,615	2,520,446	2,965,230	2,965,230	2,965,230
	p. Net Present Value of Total financial requirements	247,285	1,059,282	2,097,113	2,767,730	2,965,230	2,965,230
	q. Net Present Value of expected increased incomes	883,109	15% discount rate				
	r. Benefit/Cost relation	12,101,871					
		14					

**Improvements in Dry-salt processing for fish Preservation.**

**Notes to the Assumptions utilized in the Cost/Benefit Table:**

- a) Potential participants: total number of families where at least one member (normally the head of the family) is permanently engaged in fishing activities.
- b) Current value of production per participant: the total value of annual fish catch that is sold in the market, divided by a).
- c) Selected participants: (% of a) proposed on the basis of a minimum size (sufficient to produce a substantial regional effect) and a maximum size (considering operating capacity of the Project).
- d). Expected increase in value of production per participant: (% of b) estimated on the basis of potential increase in consumption and in year average price of fish due to a better supply of preserved fish during the low fishing season.
- e) Total beneficiaries: total members of families of participants (c x 7).
- f) Yearly participants: same as (c).
- g) Fixed investment per participant: (h/c).
- h) Fixed investment per year: estimated on the basis of information collected in the area, considering the cost of implementing six modular processing plants.
- i) Processing inputs requirements per year: considering basic inputs for dry-salt preservation for total participants.
- j) Net credit requirements for input purchasing-4 years: on the basis of short term credits to be recovered in 1 year.
- k) Total financial requirements per year: (h+j).
- l) Projected current production: current production with a yearly increase of 5%.
- m) Expected additional value of production per year: (f x d).
- n) Expected accumulated additional production per year: accumulation of (m) considering the production of total accumulated participants.
- o) Expected increase in total incomes of participants: production less devolution of credits, (m - k).
- p) Net Present value of Total Financial requirements: (NPV of k) calculated at a yearly discount rate of 10%.
- q) Net Present value of expected increases in incomes: (NPV of p) calculated at a yearly discount rate of 10%.
- r) Benefit/Cost relation: (q/p).

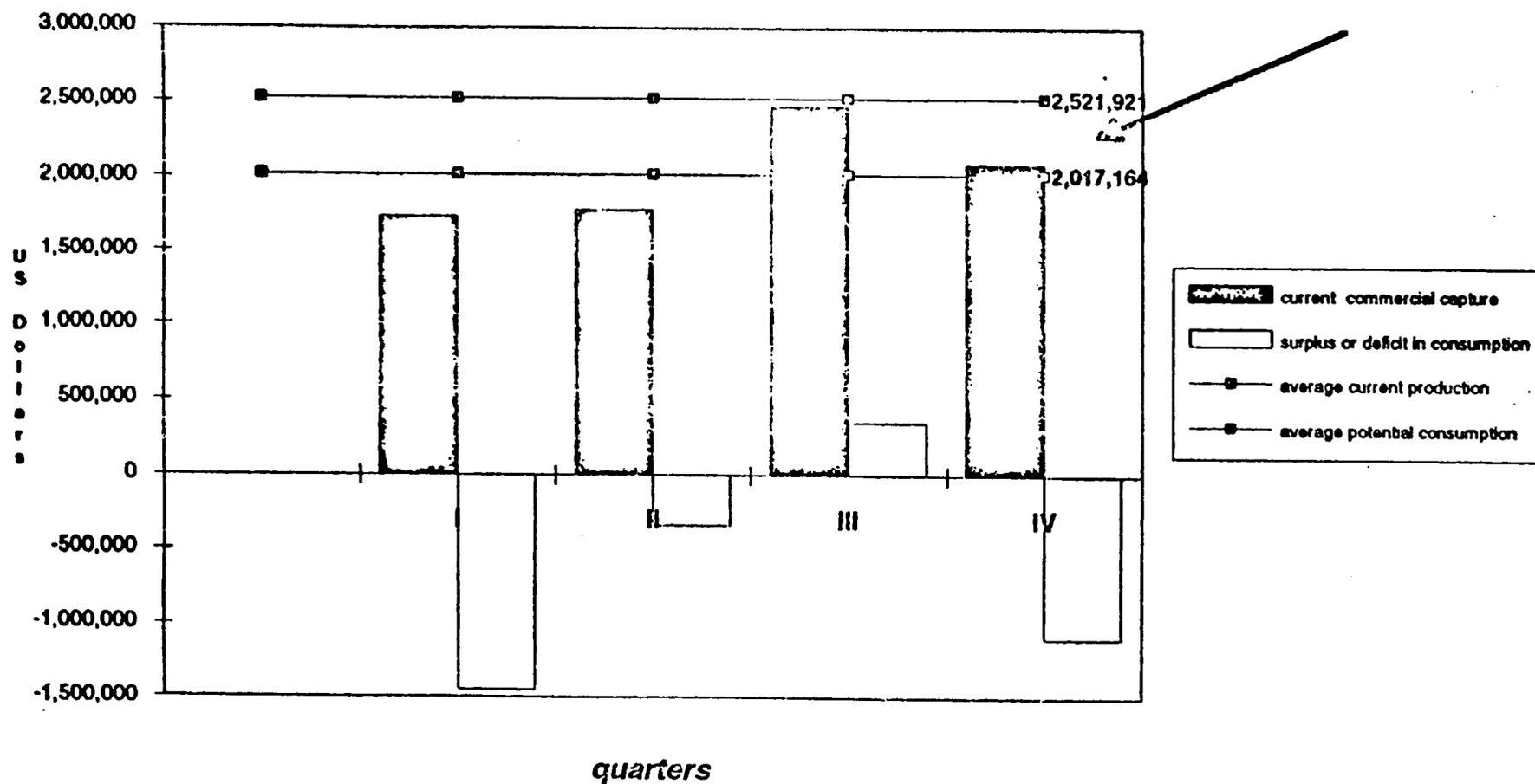
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Table 3.0 Population and Economic Product

		provinces:		Total	% of total
I population		LORETO Marañon River	REQUENA Ucayali River		
Total	1981 Census	33,548	46,339	79,887	100%
	rate of growth 72-81	0.99%	2.01%		
	1991 projection	37,021	56,542	93,564	100%
Rural	1981 Census	26,972	28,576	55,548	70%
	1991 Projection	28,521	35,039	63,561	68%
	1981 No of families	4,397	4,062	8,459	
	members per family	6	7	7	
Urban	1981 Census	6,576	17,763	24,339	30%
	1991 Projection	8,500	21,503	30,003	32%
	1981 No of families	785	2,515	3,300	
	members per family	8	7	7	
II production (annual)		0.63			% of total
A Forestry and Wildlife					
A1	limber extraction m3	22,203	19,170		
	US\$	3,091,908	2,669,543	5,761,451	10%
A2	ornamental fish export			380,000	1%
A3	other wildlife, estimated			1,403,454	2%
A	Total			7,544,905	13%
B Agriculture					
B1	cash crops MT	15,017	8,896		
	US\$	7,508,500	4,448,000	11,956,500	20%
B2	self sustenance crops MT	32,936	19,989		
	US\$	6,587,200	3,997,600	10,585,000	18%
B	Total	47,953	28,885		
	US\$	14,095,700	8,445,600	22,541,500	36%
C Fishing					
C1	commercial capture kg	1,015,700	7,302,500		
	US\$	985,229	7,083,425	8,068,654	14%
C2	self sustenance capture kg	2,369,356	3,618,713		
	US\$	1,184,678	1,809,356	2,994,034	5%
C	Total capture	3,385,056	10,921,213		
	US\$	2,169,907	8,892,781	11,062,688	19%
D	total cash basic production	11,585,637	14,200,966	27,570,059	46%
E	total self sustenance production	7,771,878	5,807,156	13,579,034	23%
F	commercial activities(estim)	3,823,260	4,686,320	9,098,119	15%
G	services (estimated)	3,702,119	5,654,239	9,356,357	16%
H	Total Product	US\$ 26,882,894	30,348,683	59,603,570	100%
III per capita (annual) US\$					
per capita production				637	
per capita monetary income				492	
per family annual income				3,443	
per capita rural monetary income				295	
per family rural annual monetary income				2,063	

Pacaya Samiria National Reserve

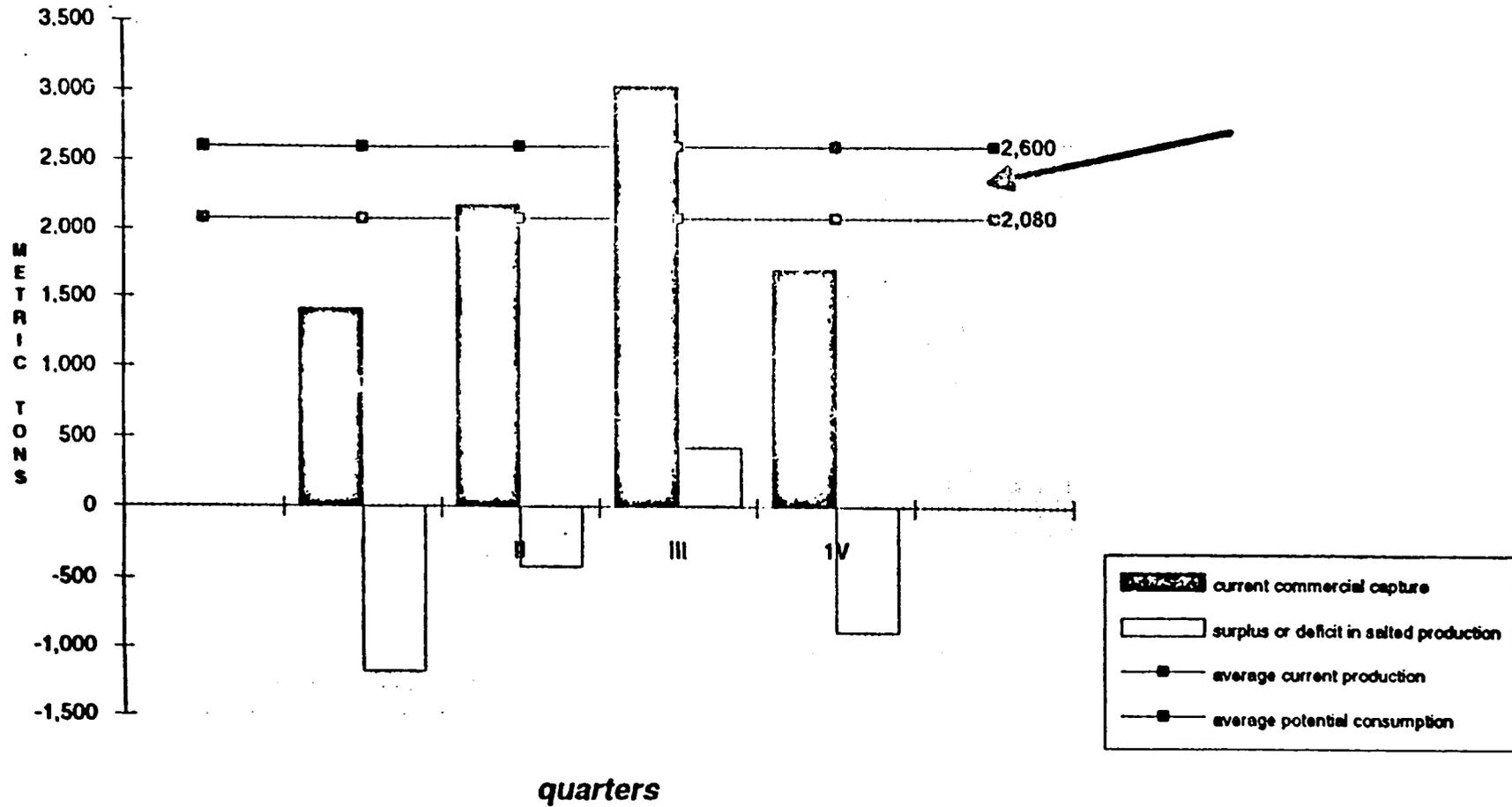
Potential increase in fishing value of production through improvements in Dry-Salt preservation  
Quarterly basis



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Pacaya Samiria National Reserve

Potential increase in volume of fish capture through improvements in Dry-Salt preservation  
Quarterly basis



by: Julio Gianella/Asociacion Amazonia

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The microeconomic analysis of the ENRS Project focused on three activities: (1) expansion of fish capture through renewal of equipment; (2) agroforestry in existing agricultural land or second-growth forests; and (3) improvements in dry-salt processing for fish preservation.

This Annex provides the assumptions and stream projections of the three projects, as well as describes the activity on improvements in dry-salt processing for fish preservation.

#### A. Assumptions and Stream Projections

1. Expansion of fish capture through renewal of equipment (A): This project involves 1,100 direct participants (fishermen), whose capturing capacity is expected to be increased by the renewal and improvement of fishing equipment. As a result, family income would increase from \$2,800 to \$3,500 on a yearly basis. The total financial requirements of this 4-year project (with additional 2 follow-up years) is estimated at \$600 per participant to renew equipment; the total credit requirements are estimated at \$350,000. This project assumes that the value of fish capture will increase to \$800,000 on year 5.

2. Agroforestry on existing agricultural a/o in second-growth forests (B): This project involves 1,100 direct participants and 7,700 total beneficiaries. It consists of installing 10 demonstration agroforestry parcels, establishing an accessible credit system to farmers, and implementing an efficient supply system of agricultural inputs. The net present value of total financial requirement for the 6-year project is estimated at \$1.01 million. This project estimates that the value of agricultural production will be increased by \$1.9 million at the end of year 5.

3. Improvements in dry-salt processing for fish preservation (C): This 4-year project (with 2 additional follow-up years) involves 1,700 direct participants and 12,000 total beneficiaries. It consists of implementing 6 pilot units and a new system of input supply for dry-salting fish, and establishing a short-term credit system to facilitate purchase of inputs and stock financing. The net present value of total financial requirements is estimated at approximately \$880 thousand. This project estimates that the additional value of fish production during a peak year will increase to nearly \$3 million.

#### B. Description of Activity on Improvements in Dry-Salt processing for Fish Preservation

Selected Participants: This sample cost/benefit analysis estimates the effect on 60% of all fishermen working in the area and their families (1,700 families x average family size of 7 = 12,000 total beneficiaries).

Objective: To extend the durability of preserved fish by improving the technology of salt-drying and related technologies to achieve an increased supply of preserved fish during the low fishing season thus capturing the existing demand (in Iquitos) illustrated by the gap between high and low season consumption (see Chart in Annex M). Product loss would be cut during the high season and product sales would be increased during the low seasons. Other more distant markets could also be tapped, which offer higher prices.

**Schedule:** A 4-year illustrative investment program, consisting of two basic components:

- a. Storage facilities construction and equipping; and,
- b. A credit program to facilitate the supply and purchase of salt and transport containers. A 2-year follow-up period is suggested.

**Actions:** Construction and equipment of 6 pilot storage/processing units to be built in key locations along the rivers that supply fish to the Iquitos and other markets. These units would include a shaded and ventilated space with working tables, storage and sanitary facilities and a small refrigeration unit. The facilities would be financed and built with the participation (from the beginning) of organized groups of local fishermen, who would eventually acquire ownership of the plants.

**Total Financial Requirements:** The storage/processing facilities are liberally estimated at \$112,500 each, with a total investment requirement of \$675,000 for six units. The salt and other supply inputs for these activities is estimated at \$560,000 in a peak year. By planning for a short term recovery of credits to purchase the required inputs, the total financial requirements for that purpose would not be higher than peak year needs.

**Expected Economic Benefits:** It is expected that the increase of the value of fish production could be increased by \$2,965,000 in a peak year. Discounting returns on loans, the NPV of income increase in the six-year period of the program is estimated at \$2,946,000 with a direct cost to benefit ratio of 14. It should be noted that this ratio does not consider indirect Project costs.

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Agency for International Development  
Washington, D.C. 20523

ANNEX N

123(e) DETERMINATION LETTER

AUG 05 1991

Chairman, Committee on Foreign Relations  
United States Senate  
Washington, D.C. 20510

Dear Mr. Chairman:

This is a follow-up to our letter of April 23, 1991. Enclosed is a summary of activities also proposed for funding in Peru during fiscal year 1991 by the Agency for International Development's Latin America and Caribbean Bureau under the authority of Section 123(e) of the Foreign Assistance Act of 1961, as amended.

Sincerely,



R. Ray Randlett  
Assistant Administrator  
for Legislative Affairs

Enclosures: a/s

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Summary of Additional Activities Proposed for Funding During  
Fiscal Year (FY 1991) under Section 123(e) Authority  
PERU

Private Sector Related Activities

National Association of Partners of the Americas (Partners) - \$1,203,000 - for continuation of the Private Sector Management Improvement Project (527-0272). Of this amount, \$700,000 proposed to Congress in A.I.D.'s April 23, 1991, letter has been obligated. The additional funding will continue support for the five private sector institutions undertaking institutional development-related activities and enable them to carry out more industry responsive and higher quality management linkages with the industries they serve.

Biodiversity Conservation Activities

World Wildlife Fund (WWF) - \$43,899 - to support biodiversity conservation activities in Peru under the Conservation of Biological Diversity Project (936-5554). These funds will support WWF's ongoing biodiversity conservation activities in Peru, previously funded under the Development of Environmental Management Systems Project (598-0605).

The Nature Conservancy (TNC) - - to continue support the WWF in its efforts to improve income generation potential and the livelihoods of the beneficiaries through the maintenance improvement, and subsequent increased utilization of the natural resources of the Pacaya-Samaria National Reserve and its immediate surroundings. These funds will support activities under the Employment and Natural Resources Sustainability Project (527-0341) implemented by TNC with organizations such as the Peruvian Foundation for the Conservation of Nature (FPCN), a local private and voluntary organization registered with A.I.D. Since 1983, TNC has continuously provided technical and financial assistance (roughly \$800,000 in the last three years) to FPCN, the Center for Disease Control, and the Peruvian Environmental Law Society for biodiversity conservation and natural resource management activities in Peru. This has included the development and management of the Yanuchaga Chemillen National Park which A.I.D. has supported under Projects 598-0605 and 598-0782.

PROJECT NAME	INCREMENT (DOLS 000)	LOP (DOLS 000)	INCLUDED IN FY 91-92 AP	DECISION
<b>FY 91</b>				
5270341 EMPLOY/NATL RESOURCE DEV (OPG)	2,030	3,600	NO	APPR/ DEL
<b>FY 92</b>				
5270348 SELVA ECON REVITALIZATION	10,000	60,000	ASTERISK	REVISED NPD OR CONCEPT PAPER TO AID/W
527-0347 NARCO EDUC/ COMM INIT	2,000	8,500	ASTERISK	APPR/ DEL
5270350 SMALL BUSINESS EMPLOY EXPANS	4,000 10,000LC	4,000 10,000LC	ASTERISK	APPR/ DEL
527-0357 POL ANAL FOR PRIV AGR DEV	1,000	5,000	NO	APPR/ DEL
527-0352 JUDICIAL REFORM	1,000	5,000	YES	PID TO AID/W
527-0353 PVO PROGRAM SUPPORT	700	9,000	YES	APPR/ DEL
<b>FY 93</b>				
5270358 AGRICUL TECH DISSEMINATION	1,475	20,000	NO	INCL. IN ABS
5270356 DEMOCRATIC INITIATIVES	3,000	10,000	NO	INCL. IN ABS
527-0359 AGR CREDIT/ RURAL SAVINGS MOBILIZATION	1,365	10,000	NO	INCL. IN ABS
5270360 NPA/HEALTH POLICY REFORM (PAAD)	7,300	30,000	NO	INCL. IN ABS

ASTERISK NSD-18 ESFFUNDED PROJECTS APPROVED AS PART OF

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AND 93.

F. REGIONALIZATION. THE MISSION WAS ASKED HOW THE REGIONALIZATION PROCESS UNDERWAY IN PERU WILL AFFECT THE USAID PROJECTS THAT HAVE A NATIONWIDE SCOPE. THE DIRECTOR RESPONDED THAT AT PRESENT, IT IS UNCERTAIN WHETHER THE REGIONAL GOVERNMENTS WILL HAVE ANY REAL POWER, ESPECIALLY AS THEY MAY HAVE NO LEGAL AUTHORITY TO LEVY TAXES. THE MISSION HAS COMMISSIONED THE INSTITUTE OF LIBERTY AND DEMOCRACY (ILD) TO CARRY OUT A STUDY ON THE PROSPECTS FOR REGIONALIZATION, AND IT WILL CONTINUE TO MONITOR THE POTENTIAL IMPACT OF THIS PROCESS ON THE USAID PROGRAM.

G. NUTRITION ASSISTANCE. S AND T/N SUGGESTS THAT THE MISSION MAY WANT TO CONSIDER COMPLEMENTING THE COUNTRY'S ORAL REHYDRATION THERAPY/CONTROL OF DIARRHEAL DISEASE PROGRAM WITH A PL-480 LOCAL CURRENCY-FUNDED NUTRITION INPUT INTO DIETARY MANAGEMENT OF DIARRHEA (DMD) RESEARCH. ANY MISSION EFFORTS IN THIS AREA COULD APPROPRIATELY BE ASSISTED BY S&T/N'S "WOMEN AND INFANT NUTRITION" PROJECT. S&T/N SUPPORT FOR BREASTFEEDING TRAINING THROUGH ITS WELLSTART ACTIVITY WILL CONTINUE IN PERU.

H. MISSION WORK LOAD. MISSION DIRECTOR CONFIRMED THAT THE PROPOSED PROJECT DESIGN AND IMPLEMENTATION SCHEDULE IS OPTIMISTIC. ACCORDINGLY, SOME ACTIVITIES MAY BE POSTPONED FOR SECURITY REASONS, ABSENCE OF A SUITABLE GOP COUNTERPART, INADEQUATE GOP COLLABORATION, ETC.

I. NEW PROJECT DESCRIPTIONS (NPD)

RESULTS OF THE NEW PROJECT DESCRIPTIONS (NPD) REVIEW ON JUNE 19 AND CONFIRMED AT THE ACTION PLAN REVIEW ARE PROVIDED BELOW:

BT  
#8805

NNNN

UNCLASSIFIED

STATE 258005/06

## CERTIFICATION REGARDING DRUG-FREE WORKPLACE REQUIREMENTS

The grantee certifies that it will provide a drug-free workplace by:

- (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
- (b) Establishing a drug-free awareness program to inform employees about --
  - (1) The dangers of drug abuse in the workplace;
  - (2) The grantee's policy of maintaining a drug-free workplace;
  - (3) Any available drug counseling, rehabilitation and employee assistance programs; and
  - (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);
- (d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will--
  - (1) Abide by the terms of the statement; and
  - (2) Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five days after such conviction;
- (e) Notifying the agency within ten days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction;
- (f) Taking one of the following actions, within 30 days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted--
  - (1) Taking appropriate personnel action against such an employee, up to and including termination; or
  - (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
- (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a),(b),(c),(d),(e), and (f).

The grantee defines the workplace, which is the site(s) for the performance of work done in connection with the specific grant, as the following specific geographical location:

---

THE NATURE CONSERVANCY

---

Name of Organization

---

ALMA LOPEZ DIRECTOR OF FINANCE AND ADMINISTRATION

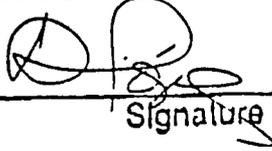
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Name and Title of Authorized Representative

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**CERTIFICATION REGARDING DRUG-FREE WORKPLACE REQUIREMENTS**

The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance in conducting any activity with the grant.

  
Signature

8/21/21  
Date

(Certification for Individual Grantees)

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ANNEX P

ASSURANCE OF COMPLIANCE WITH LAWS AND REGULATIONS  
GOVERNING NONDISCRIMINATION IN FEDERALLY ASSISTED PROGRAMS

THE NATURE CONSERVANCY (hereinafter called the "Applicant")  
(Name of Applicant)

hereby assures that no person in the United States shall, on the bases set forth below, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under, any program of activity receiving financial assistance from AID, and that with respect to the grant for which application is being made, it will comply with the requirements of:

- (1) Title VI of the Civil Rights Act of 1964 (Pub. L. 88-352, 42 U.S.C. 2000-d) which prohibits discrimination on the basis of race, color or national origin, in programs and activities receiving Federal financial assistance,
- (2) Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), which prohibits discrimination on the basis of handicap in programs and activities receiving Federal financial assistance,
- (3) The Age Discrimination Act of 1975, as amended (Pub. L. 95-478), which prohibits discrimination based on age in the delivery of services and benefits supported with Federal funds,
- (4) Title IX of the Education Amendments of 1972 (20 U.S.C. 1681, et. seq.) which prohibits discrimination on the basis of sex in education programs and activities receiving Federal financial assistance (whether or not the programs or activities are offered or sponsored by an educational institution); and
- (5) AID regulations implementing the above nondiscrimination laws, set forth in Chapter II of Title 22 of the Code of Federal Regulations.

If the Applicant is an institution of higher education, the Assurances given herein extend to admission practices and to all other practices relating to the treatment of students or clients of the institution, or relating to the opportunity to

participate in the provision of services or other benefits to such individuals, and shall be applicable to the entire institution unless the Applicant establishes to the satisfaction of the AID Administrator that the institution's practices in designated parts or programs of the institution will in no way affect its practices in the program of the institution for which financial assistance is sought, or the beneficiaries of or participants in such program.

This assurance is given in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property, discounts or other Federal financial assistance extended after the date hereof to the Applicant by the Agency, including installment payments after such date on account of applications for Federal financial assistance which were approved before such date. The Applicant recognizes and agrees that such Federal financial assistance will be extended in reliance on the representations and agreements made in this Assurance, and that the United States shall have the right to seek judicial enforcement of this Assurance. This Assurance is binding on the Applicant, its successors, transferees, and assignees, and the person or persons whose signatures appear below are authorized to sign this Assurance on behalf of the Applicant.

THE NATURE CONSERVANCY  
(Applicant)

BY (Signature) 

TITLE DIRECTOR FINANCE/ADMINISTRATION

TYPED NAME ALMA LOPEZ

DATE AUGUST 21, 1991

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