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UNCLASSIFIED

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

PANAMA

PROJECT PAPER

NATURAL RESOURCES MANAGEMENT PROJECT

AID/LAC/P-675

PROJECT NUMBER: 525-0308

UNCLASSIFIED

**PROJECT PAPER**  
**NATURAL RESOURCES MANAGEMENT**  
**PROJECT NO. 525-0308**

**USAID/PANAMA**

**JUNE 4, 1991**

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

1. TRANSACTION CODE

A = Add  
 C = Change  
 D = Delete

Amendment Number

DOCUMENT CODE

3

COUNTRY/ENTITY

PANAMA

3. PROJECT NUMBER

525-0308

4. BUREAU/OFFICE

Latin America and the Caribbean

5. PROJECT TITLE (maximum 40 characters)

Natural Resources Management

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)

MM DD YY  
01 6 31 0 9 8

7. ESTIMATED DATE OF OBLIGATION  
(Under "B." below, enter 1, 2, 3, or 4)

A. Initial FY 911 B. Quarter 3 C. Final FY 913

8. COSTS (\$000 OR EQUIVALENT \$1 = )

A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total						
(Grant)	( 10,000 )	( )	( 10,000 )	( 18,000 )	( )	( 18,000 )
(Loan)	( )	( )	( )	( )	( )	( )
Other						
1. U.S.						
2. Host Country	1,806		1,806	21,174		21,174
Other Donors)	2,000		2,000	2,000		2,000
TOTALS	13,806		13,806	41,174		41,174

9. SCHEDULE OF AID FUNDING (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE 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) ESF	233	090				18,000		18,000	
(2)									
(3)									
(4)									
TOTALS						18,000		18,000	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)

066 067 069

11. SECONDARY PURPOSE CODE  
283

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code  
B. Amount

13. PROJECT PURPOSE (maximum 480 characters)

To protect and manage Panama's renewable natural resources with particular emphasis on the canal watershed.

14. SCHEDULED EVALUATIONS

Interim MM YY Final MM YY  
0 3 9 4 0 1 9 8

15. SOURCE/ORIGIN OF GOODS AND SERVICES

000  941  Local  Other (Specify) 935

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

Approval of methods of implementation and financing:

*Harry Dorcus* 5/28/91  
Harry Dorcus, Controller

17. APPROVED BY

Signature

Thomas W. Stukel

Title

Mission Director  
USAID/Panama

Date Signed

MM DD YY  
01 6 01 9 1

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION

MM DD YY

## PROJECT AUTHORIZATION

**Country** : Panama  
**Project Title** : Natural Resources Management Project  
**Project Number** : 525-0308

1. Pursuant to Part II, Chapter 4, Section 534 of the Foreign Assistance Act 1961, as amended, I hereby authorize the Natural Resources Management Project for Panama (the "Cooperating Country") involving planned obligations of not to exceed Eighteen Million United States Dollars (\$18,000,000) in grant funds ("Grant") over a seven-year period subject to the availability of funds in accordance with the AID OYB/allotment process and administrative approval, to help in financing the foreign exchange costs of the Project. The life-of-Project will be seven years from the date of initial obligation.

2. The Project will assist the Government of Panama to protect and manage Panama's renewable natural resources, with particular emphasis on the Panama Canal Watershed, by providing technical assistance, training, commodities and construction costs. The Project will have a Panama Canal Watershed management component to strengthen INRENARE's planning, land use and management capabilities in the canal watershed, a national parks and wildlife component to improve the management of Panama's parks, and a conservation component to assist Fundacion Natura to carry out its conservation efforts.

3. The Project Agreement which may be negotiated and executed by the officer to whom such authority is delegated in accordance with AID regulations and Delegations of Authority shall be subject to the following essential terms, covenants and major conditions, together with such other terms and conditions as AID may deem appropriate:

A. **Source and Origin of Commodities, Nationality of Suppliers of Services.**

Except as AID may otherwise agree in writing, commodities financed by AID under the project shall have their source and origin in the United States or, to the extent permissible under AID "Buy America" policy, the cooperating country. Except as AID may otherwise agree in writing, the suppliers of commodities or services (other than ocean and air shipping) shall have the United State or, to the extent permissible under AID "Buy America" policy, the cooperating country as their place of nationality. Except as AID otherwise agree in writing, ocean and air shipping under the project shall be financed only on flag vessels of the United States.

- 12

B. Conditions Precedent to Disbursement.

- (1) Condition Precedent to Initial Disbursement: Prior to the first disbursement under the Grant, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, the Grantee will, except as the Parties may otherwise agree in writing, furnish to A.I.D., in form and substance satisfactory to A.I.D., the following:
  - (i) An implementation and financial plan for all the activities to be undertaken by INRENARE during the first year of the Project, including evidence that sufficient GOP counterpart funds have been included in the budgets approved for INRENARE to effectively carry out first year Project activities.
- (2) Condition Precedent to Initial Disbursement other than for Technical Assistance and Training for the Panama Canal Component and for Architectural Design Works: Prior to the first disbursement under the Grant, or issuance by A.I.D. of documentation pursuant to which disbursements will be made other than for technical assistance and training for the Panama Canal Watershed Management component and for architectural design work, the Grantee will, except as the Parties may otherwise agree in writing, furnish to A.I.D., in form and substance satisfactory to A.I.D., evidence of: (a) the Grantee having reached a final agreement with the Nature Conservancy to implement a debt-for-nature swap under the Project; and (b) the Nature Conservancy having reached an agreement with the Conservation Foundation providing for the transfer, utilization and disposition of the Conservation Bonds resulting from the proceeds of the debt-for-nature swap.
- (3) Condition Precedent to Initial Disbursement to INRENARE: Prior to the first disbursement under the Grant, or issuance by A.I.D. of documentation pursuant to which disbursement will be made, to INRENARE, the Grantee will, except as the Parties may otherwise agree in writing, furnish to A.I.D., in form and substance satisfactory to A.I.D., evidence of having established financial management and administrative systems acceptable to A.I.D. to effectively support INRENARE's field operations.
- (4) Condition Precedent to Initial Disbursement for Construction: Prior to the first disbursement under the Grant, or issuance by A.I.D. of documentation pursuant to which disbursement will

be made, for each construction activity using Project funds, the Grantee will, except as the Parties may otherwise agree in writing, furnish to A.I.D., in form and substance satisfactory to A.I.D., descriptions of the locations of the proposed construction and evidence of INRENARE's having title to the land on which the construction is to take place.

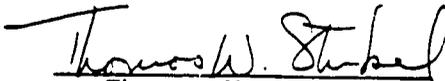
- (5) Condition Precedent to Initial Disbursement for the Conservation Foundation's Operational and Initial Program Costs: Prior to the first disbursement under the Grant, or issuance by USAID of documentation pursuant to which disbursement will be made, for the Conservation Foundation's Operational and Initial Program Costs, the Grantee will furnish to USAID, in form and substance satisfactory to USAID, preliminary criteria for both the selection of NGO's and the selection of proposals under the Foundation's subgrant program.

#### C. Covenants

The Grantee will make the following significant covenants to:

- (1) Establish and implement, by no later than one (1) year from the date of the Agreement, regulations prohibiting the granting of government loans (including loans of government financing institutions such as the Agricultural Development Bank), concessions and development permits in areas designated as national parks or equivalent reserves except as authorized by INRENARE;
- (2) Establish and implement, by no later than three (3) years from the date of the Agreement, regulations requiring that the granting of land use rights, mining and timber concessions, river and coastal use permits, and road construction projects be subject to a determination by INRENARE that the proposed land use or development is appropriate and that negative environmental impacts are minimized;
- (3) Provide INRENARE with adequate central office facilities throughout the duration of the Project;
- (4) Use all Project-funded equipment, vehicles and commodities provided to INRENARE exclusively for Project purposes, and that these commodities will be the property of that agency;

- (5) Provide A.I.D., by no later than three months following delivery of the project-funded vehicles (and motorcycles) with the names and positions of the INRENARE officials to which the vehicles are assigned as well as evidence of the establishment and implementation of a vehicle maintenance reporting system acceptable to A.I.D.;
- (6) Submit to A.I.D. on an annual basis an implementation and financial plan of the Project for all the activities to be undertaken by INRENARE for that year of the Project, including evidence that sufficient GOP counterpart funds have been included in the budgets approved for INRENARE to effectively carry out Project activities; and
- (7) Establish and implement a law for the National Park System that guarantees the stability and operation of parks and reserves, by no later than one (1) year from the date of the Agreement.

  
Thomas W. Stukel  
Director, USAID/Panama

DATE: 06/04/91

*S. Jh*  
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## ACRONYMS

AID	United States Agency for International Development
ANARAP	National Association of Panamanian Reforesters
ANCON	National Association for the Conservation of Nature
ANDE	National Association for Development
BNP	National Bank of Panama
CARITAS	Catholic Relief International
CATIE	Tropical Agricultural Center for Research and Training
CDC	Conservation Data Center
CONAMA	National Environmental Commission
FAO	Food and Agricultural Organization of the United Nations
GOP	Government of Panama
IDAAN	National Waters and Sewers Institute
INRENARE	National Institute for Renewable Natural Resources
IRHE	Institute for Hydraulic Resources and Electricity
MIDA	Ministry of Agricultural and Livestock Development
MIPPE	Ministry of Planning and Economic Policy
MOP	Ministry of Public Works
NATURA	Nature Conservation Foundation
NGO	Non-Government Organization
PCC	Panama Canal Commission
RENARE	National Directorate for Renewable Natural Resources (INRENARE)
RENARM	Regional Natural Resources Management Project
ROCAP	AID Regional Office for Central America and Panama
TNC	The Nature Conservancy
TFAP	Tropical Forestry Action Plan

*h*

## I. SUMMARY AND RECOMMENDATIONS

### A. Summary

The Project goal is to promote sustained economic and social development. The purpose is to protect and manage Panama's renewable natural resources, with particular emphasis on the Canal Watershed. The problem addressed is the unplanned and exhaustive use of the renewable natural resources of Panama. Deforestation for agriculture, grazing, and timber extraction has resulted in seasonal flooding and drought, soil erosion, and loss of land productivity. Dry season navigation of the Panama Canal is threatened. Rare biological resources are endangered or have vanished. At present rates of forest clearing and commercial logging, local fuel wood and industrial timber supplies will be exhausted by the year 2005.

USAID/Panama identified these problems and responded in 1979 with the Watershed Management Project (525-0191). However, further actions are needed to conserve soils, manage water resources, protect biological resources and sustain the productivity of the natural forests. The forestry area, while of clear importance to Panama, needs to be further evaluated prior to recommending types of environmentally sound interventions. As such further analysis of forestry issues, to include an environmental assessment, will be conducted prior to including forestry support in the project.

This Project builds on the experience of the earlier Watershed Management Project, concentrating activities in the Panama Canal Watershed and assisting the Institute of Renewable Natural Resources (INRENARE) to improve its management of Panama's national parks. The operational capabilities of INRENARE will be strengthened and its energies concentrated on field management of natural resources. This Project will initially have three components:

1. The Panama Canal Watershed Management component will strengthen INRENARE's policy formulation, land use planning and interagency coordination responsibilities in the watershed, develop and implement a land use capability classification system, and strengthen INRENARE's management and administrative systems.

2. The National Parks and Wildlands Management component will assist INRENARE to establish a physical presence in national parks and reserves and improve the management and protection of these areas to conserve threatened biological resources and ecosystems.

3. The Conservation Foundation component will establish a natural resource conservation foundation with a trust fund capitalized by a debt-for-nature swap. The trust fund will provide a long-term source of income to finance environmental activities

carried out in the public and private sectors. The Project will help establish the capacity of the foundation to manage resources and also strengthen the capabilities of local non-governmental organizations (NGOs) and rural community groups to carry out resource conservation, reforestation and environmental education programs.

The Project will allocate \$8 million from the A.I.D. grant for the debt-for-nature swap. This amount will be matched by \$2 million to be contributed by NGOs such as The Nature Conservancy. It is estimated that as much as \$15 million of additional funding for project activities will result from the swap in support of this project and an additional \$60 million for environmental activities after the project is completed.

As the lead agency for the management, conservation and development of natural resources in Panama, INRENARE will have primary responsibility for the coordination and oversight of the Project. It will directly implement the Panama Canal Watershed Management and the National Parks and Wildlands Management components. The Conservation Foundation component will be implemented by the new foundation and by local NGOs who will receive technical assistance and training under the Project.

B. Project Inputs (\$41.2 Million)

<u>Project Components</u>	<u>USAID Grant</u>	<u>C.P. Funds</u>	<u>Project TOTAL</u>
Panama Canal Watershed	1.9	1.0	2.9
National Parks & Wildlands Mgt.	5.5	13.3	18.8
Conservation Foundation	9.3	8.9	18.2
USAID Project Management	0.3	0.0	0.3
Evaluation and Audit	0.3	0.0	0.3
Inflation & Contingencies	<u>0.7</u>	<u>0.0</u>	<u>0.7</u>
<u>Project Totals</u>	<u>18.0</u>	<u>23.2</u>	<u>41.2</u>

C. Recommendation

The Project Development Committee recommends that a grant in the amount of \$18 million be authorized to the Government of Panama (GOP) to assist in financing a seven-year Natural Resources Management (MARENA) Project. The Grantee will be INRENARE's parent organization, the Ministry of Planning and Economic Policy (MIPPE), representing the Government of Panama. In support of developing a long-term financing mechanism for environmental activities, a total of \$8.0 million of the \$18 million grant will be used for a debt-for-nature swap. In STATE 081427, LAC/W provided program concurrence to the mission to approve the MARENA project.

D. Project Development

USAID/Panama Project Development Committee:

David S. Gardella, PSD  
Jesus Saiz, PSD  
Robert Mathia, PROG

Kermit Moh, PSD  
Douglas Chiriboga, PROG  
Stella de Patiño, CONT

Project Design Team:

Consultants

Alan Randall, Forestry Advisor  
Brian Houseal, Parks Planner  
Henry Tschinkel, Tropical Forester  
Frank Zadroga, Environmental Adv.

INRENARE

Stanley Heckadon, Director  
Vielka Garibaldi, Watershed  
Raul Pinedo, Dir. Planning  
Armando Falma, Dir. Parks

ANCON

Juan Carlos Navarro, Director  
Raul Fletcher, Conservation  
Oscar Vallarino, Administration

MIPPE

Osmar Upegue, Intern. Audit  
Arturo Tapia, Debt Negocia.  
Denia Chen, Public Credit

Project Paper Reviewed by:

Kevin Kelly, Deputy Director  
Alexander Newton, RLA  
Joslyn Fearon, PROG

Harry Dorcus, Controller  
Robert Stader, Procurement

Project Paper Approved by: Thomas W. Stukel, Mission Director

## II. PROJECT BACKGROUND

### A. The Problem

The natural forests of Panama were abundant in the recent past. There was little public concern to conserve and manage these forests, and the soil and water they protect. Rather the forests were seen as a barrier to development, something to be removed if agriculture and grazing were to increase. As the population expanded (more than doubling since 1960), large areas of forests were converted to agriculture and cattle ranching. The soils were soon depleted and the users moved on to new areas. Denuded land eroded or reverted to brush and low productivity grasses. By 1985, only 40% (31,245 Km<sup>2</sup>) of the original natural forest remained. Essentially all of the lowland forests of the Pacific slopes have been eliminated with the exception of Darién province, coastal mangroves, and a narrow protected area along the Panama Canal. On the Atlantic side, the forest is largely intact except where new roads give access, such as the pipeline road to Chiriquí Grande in Bocas del Toro. Deforestation has resulted in seasonal flooding and drought, soil erosion, and loss of land productivity. Dry season navigation of the Panama Canal is threatened. Rare biological resources are endangered or have vanished.

Good agricultural land in Panama is limited in area. Using USDA standards, there is no Class I (unrestricted as to use) land in the country, and 75% is in Class V or higher (suitable for forestry or permanent crops but with severe limitations on agricultural use without expensive conservation investments). Demand for farm land grows as the population of 2.3 million increases at 2.3% per year. The growing rural population is increasingly forced into less suitable areas such as steep uplands and fragile Atlantic slopes in search of new land. Deforestation followed by extractive agricultural practices is leading to reduced soil productivity and water retention capacity, followed by severe erosion.

Deforestation has other impacts that are less apparent than floods and aridity. Unique tropical ecosystems are destroyed with land clearing. Fuelwood is increasingly scarce in southwestern Panama where the rural population has no affordable alternative sources of energy. At current land clearing and wood consumption rates the majority of Panama's forests will be gone in less than 20 years.

The original abundance of forests and unoccupied land in Panama delayed national recognition of the importance of conserving natural resources. The occupation of new lands was encouraged without regard to land capability or sustained use. Private sector

investment was largely exploitive, stressing short-term income generation. It was not until the 1970s that a national awareness of the devastation of natural resources began to emerge.

#### B. Initial Response

The current natural resource legislation in Panama was enacted in 1966 for the conservation and management of water and forests. In 1973, the General Directorate for Renewable Natural Resources (RENARE) was organized within the Ministry of Agricultural Development (MIDA) through the consolidation of two small units responsible for soils surveys and forest conservation. Initial RENARE activities focused on the administration of the law governing the use of forests and water resources.

With the initiation of the USAID-supported Watershed Management Project in 1979, the first significant investment funds became available to RENARE. The purposes of this project were (1) to build up RENARE as an institution, (2) to increase public awareness of the importance of natural resource conservation; and (3) to establish watershed management programs in the Canal, Rio La Villa and Rio Caldera watersheds. Through this effort, and with the support of FAO, CATIE and other assistance agencies, RENARE's capabilities increased. The number of personnel grew from 440 to 850, and expertise of staff increased through recruitment of professionally qualified people, technical assistance and training. Watershed management activities of soil conservation and the introduction of improved pasture practices provided initial operational experience. Four thousand hectares of public land were reforested. A preliminary strategy was written to protect and develop national parks and equivalent reserves. Protection facilities were established in three national parks. A farm woodlot demonstration program was started and gained local support. A public education campaign raised national consciousness of the problems of natural resource degradation and fostered the formation of private voluntary groups that support environmental and conservation actions.

Despite these gains, in 1985 RENARE could not be considered fully effective as a natural resource management agency. Organizationally, RENARE's functions within MIDA were limited to an advisory and normative role, with the implementation of field operations the responsibility of the MIDA regional offices. Despite nominal authority for overseeing renewable natural resources conservation and use, RENARE was unable to exercise its regulatory mandate. The regional offices of MIDA had other priorities that differed greatly from, and were sometimes in direct conflict with, natural resource conservation priorities. RENARE staff were often assigned to other activities by the MIDA Regional Coordinators. Scarce funds and project equipment for conservation projects were diverted to other MIDA activities, and technical

recommendations of RENARE staff ignored.

RENARE's direct field project experience was limited to the Watershed Management Project, the CATIE Regional Multipurpose Tree Crop Project, and an agroforestry program with CARE. However, lessons were learned from the implementation of these activities, and confirmed by project evaluations and other studies of RENARE operations.

C. Original MARENA Project 1986-87

In 1986 USAID/Panama designed a follow-on to the Watershed Management Project to assist the natural resource sector in general by addressing the full range of priorities--soils and water conservation, parks and protected areas, natural forest management, farm forestry (small landholders), industrial plantations and the strengthening of the field operations of RENARE. The Project was to be national in coverage, implementing activities in all parts of the country from the Darién in the east to Chiriquí and Bocas del Toro in the west. In addition to strengthening the operations of RENARE, the Project aimed to stimulate investment by the private sector in tree planting by: (1) assisting small landholders through the free distribution of seedlings and other inputs, and (2) providing credit to companies and large landowners willing to invest in industrial scale plantations. An extensive technical assistance component was programmed to introduce new functions to RENARE that would cover a wider range of interrelated natural resource management activities. The Project was to be a 10-year effort with \$50 million in LOP funding, \$35.7 million of which was to be AID-financed.

The Mission approved the MARENA Project Paper on September 30, 1986, but delayed negotiating a Project Agreement pending a decision of the Government of Panama on the status of RENARE. Three changes were considered necessary for the public sector component of MARENA to be effective: (1) elevation of the status of RENARE to be the lead agency of government on natural resource management and environmental matters; (2) full operational authority for regulating natural resource use, and for managing public lands; and (3) control and continuity of income from forest and water concessions, permits, fees and fines authorized by law. These criteria were met with the passing of Panamanian Law 21 on December 16, 1986, by a unanimous vote of the legislature, creating the National Institute for Renewable Natural Resources (INRENARE). The Institute is a semi-autonomous agency of government within the portfolio of the Minister of Planning (MIPPE).

After passage of Law 21, USAID then completed project negotiations with MIPPE, and a date for agreement signing was set in February 1987. However, this was postponed as relations with Panama began to deteriorate and as a consequence the project was

not initiated. Based on continued degradation of the natural resource base, and with renewal of USG assistance to Panama in 1990, the Mission made a decision to reformulate the natural resource management project. Three members of the original MARENA design team were asked to review the current state of natural resource management in Panama, assess the current capabilities of INRENARE and conservation NGOs, and provide recommendations for a revised MARENA design.

#### D. Priorities and Strategy

1. Government of Panama Priorities: A strategy for the natural resources sector for 1990-94 (Ecological Agenda) was developed by INRENARE, and included in its budget submission approved by the legislature for 1990. The Agenda calls for:

- o- Strengthened national park and reserves protection through tripling (to 150) the number of park guards, and provision of training and equipment.
- o- Improved management of water supplies and monitoring of water quality in priority watersheds where the problems of conflicts in land use and erosion are most acute.
- o- Establishment of demonstration areas for soil conservation practices and agro-forestry techniques in the degraded areas of the Pacific slopes of western Panama.
- o- Effective management of existing reserves of production forests, and the establishment of new reserves, for sustained supply of raw material for industrial use.
- o- Reforestation of idle and degraded areas with fast growing species for the production of fuelwood to satisfy local requirements and to provide a base for future industrial raw material supply.

The Ecological Agenda reflects the natural resource management strategy of INRENARE that was subsequently included in the Tropical Forest Action Plan (TFAP) developed for Panama with the assistance from the FAO. This strategy is designed to integrate the activities of all institutions, both public and private, concerned with the natural resource base.

2. USAID Policy Guidelines: This Project closely follows AID's policies for natural resources and environmental conservation as described in Policy Determination Number 6 (PD-6) of April 26, 1983. PD-6 sets out specific problems for priority consideration:

range degradation, declining soil productivity, soil erosion, loss of biological diversity, and development pressures on coastal zones. AID's policy response to these problems is "through appropriate natural resources management (programs)...such as those addressing watershed protection, soil stabilization, social forestry, establishment or enhancement of natural areas or reserves, coastal zone management, and identification of plant and animal species in remote areas...". The Project conforms with directives to promote biological diversity and conserve wildlands and humid tropical forests. The Project is also consistent with Agency Debt-for-Development Guidelines issued in 1990.

3. Joint Commission on the Environment: Project actions to be implemented in the Panama Canal Watershed are consistent with the recommendations of the Comprehensive Management Plan of the Panama Canal Watershed adopted by the US/Panama Joint Commission on the Environment (JCE Resolution No. 5, 6/30/83). The Project begins to implement four of the six programs recommended in the Third Phase of the JCE Plan; Program 1, Protection, Control and Monitoring of the Canal Watershed; Program 2, Determination of Appropriate Use of Natural Space; Program 4, Rehabilitation of Critical Areas; and Program 6, Data Collection Service.

4. USAID Mission Objectives: The Project is responsive to all three strategic objectives the Mission has identified in developing a new CDSS, which include support to Democratic Institutions, Economic Diversification and the Panama Canal. These objectives are viewed as the most critical areas for USAID support during the 1990s as they will contribute to GOP efforts to create a politically, socially and economically stable environment. This will translate into internal and world-wide confidence in the capacity of Panama to manage the Canal when it is turned over to full Panamanian control at the end of the decade.

After years of military dictatorship and poor management of public resources, rebuilding and strengthening key institutions to carry out their functions is essential to establishing long-term stability in Panama. INRENARE, with its responsibility for management and conservation of the country's natural resource base, is one of the key institutions on which such efforts must focus. Its mandate is particularly important because sustained economic growth necessarily depends on the natural resource base; thus, INRENARE is an institution that is central to Panama's future.

Similarly, the objective of economic diversification is also dependent upon the long-term availability of natural resources -- both as inputs (water, wood, etc.) and as the base that permits productive activity (soil). As Panama begins to look to the agricultural and industrial sectors to increase their respective contribution to GDP through expanded production and increased employment opportunities, the quality and long-term prospects of the natural resource base will have a major influence on the

success of this strategy.

The Canal is one of Panama's most important resources, contributing directly and indirectly to approximately 10% of GDP. To function, the Canal draws on fresh water supplied through the extensive watershed on both sides of the Canal. As the watershed is deforested and the lands put into inappropriate (and often temporary) uses, the ability of the system to capture water decreases causing the unprotected soils to erode and the level of siltation in the Canal to increase. Thus, management of the Canal Watershed, a principal component of the Project, is critical to the continued viability of the Canal and its role in Panama's economic future.

In view of the impact of the natural resource sector across each of these strategic objectives, the Mission determined that a separate objective focused on natural resources management was not necessary. As can be seen, however, the sector is fundamental to achieving the Mission's objectives, and the Project, therefore, is fully consistent with Mission strategy.

#### E. Complementary USAID Activities

1. Regional Environmental and Natural Resources Strategy:  
In 1989, AID's Regional Office for Central American Programs (ROCAP) developed a strategy to guide regional and country actions in finding solutions to the severe environmental and natural resource degradation that is occurring in the region. The ten-year Regional Environmental and Natural Resource Strategy emphasizes sustainable agriculture, production from natural forests, management of wildlands, protection of biological diversity, management of critical watersheds, policy formulation, institutional strengthening, and environmental education. It is designed to provide guidance for coordinated investments by both bilateral USAID missions and ROCAP during the 1990-2000 decade. The MARENA Project will accomplish in Panama many of the strategic objectives of the Regional Natural Resources Management Strategy adopted by AID for Central America.

2. Regional Natural Resources Management Project (RENARM):  
ROCAP developed the RENARM Project to implement its Central America regional strategy. The Project has been authorized for an initial six-year period. Originally intended for the countries in which AID was working in 1989 (Belize, Costa Rica, El Salvador, Guatemala and Honduras), RENARM has been expanded to include Panama and Nicaragua. The RENARM Project has four main components: (1) Natural Resource Policy Initiatives--directed at public and private leaders; (2) Environmental Awareness and Biodiversity Conservation--to create the conditions for improved policies and regulations to protect key wildlands as reserves; (3) Sustainable Agriculture and Forestry--to advance work underway in watershed management, forestry and plant protection; and (4) support to the continuing

institutional development of CATIE. The RENARM Project will provide training, outreach, technical assistance, and research on a regional level, in support of public and private institutions, bilateral USAID Missions and other donors. The RENARM Project, through cooperative agreements with a consortium of international conservation organizations and CATIE will provide technical assistance to support the National Parks Management and Conservation Foundation components of the MARENA Project.

3. LAC Regional Parks-In-Peril Project: The LAC/DR/E managed Parks-In-Peril Project recently signed a three-year cooperative agreement with The Nature Conservancy to assist in the establishment of a permanent management presence in each of 20 protected areas identified as having global biological significance in Latin America and the Caribbean. The Darien Biosphere Reserve was identified as the park in Panama that would benefit from this LAC regional project. The Darien has also been identified as one of the 14 parks and reserves to be developed under the MARENA project. The Parks-In-Peril activity in the Darien will carry out urgently needed work before MARENA funding becomes available. The Mission reviewed the proposed Darien management plan and budget prepared by The Nature Conservancy to insure there will be no duplication of efforts or procurement of the same equipment and commodities under the two projects.

#### F. Relationship to Other Donors

The natural resource sector in Panama has received little direct financial assistance from other donors over the past decade. A major FAO project provided technical assistance and training to INRENARE staff from 1979-1984, and completed a number of technical and research studies on forestry problems in collaboration with INRENARE. These studies will be used as the Mission analyzes whether to include a forestry component in this Project. Other technical assistance over the last five years was received through bilateral programs (France in soil conservation, Spain in forestry and watershed management, Japan in forest inventory). INRENARE staff gained experience as counterparts in these efforts and through training provided by these programs and others.

#### G. Tropical Forest Action Plan for Panama

A Tropical Forest Action Plan (TFAP) for Panama was prepared by INRENARE, with the assistance of FAO. The objective of the TFAP is to establish policy and program guidelines for the forest sector, propose a national forest development plan, contribute to knowledge of the forest sector, and to present a list of projects for consideration by the international donor community. The list was presented at a round table in January 1991. INRENARE adjusted policy recommendations and the proposed strategy of the TFAP to conform with the economic recovery program of the government, and a re-definition of the role of the public and the private sectors

in addressing the needs of the natural resource sector. It is planned to group the projects proposed in the TFAP into five lines of action: forest resources and land use; development of forest industries; fuelwood and energy; conservation of ecological systems; and institutional development. The MARENA project will be directly supportive of several elements of the Plan.

### III. PROJECT DESCRIPTION

#### A. Goal and Purpose

The Project goal is to promote sustained economic and social development. The purpose is to protect and manage Panama's renewable natural resources, with particular emphasis on the Canal Watershed. Assistance to the forestry sector is not included in the Project at this time, but may be added at a later date once additional analyses are completed.

#### B. Project Strategy

The project strategy is to assist INRENARE in developing its capability to implement those organizational responsibilities that are uniquely its own: renewable natural resource policy and planning formulation; the management and protection of public lands--particularly the national parks; and the regulatory (normative) function of control of land use and protection of the environment. The coordination, management and administrative capabilities of INRENARE will be strengthened to improve the effectiveness of these functions. Through the development of a conservation foundation, the Project will also support the actions of conservation NGOs that promote: the acceptance of sustainable production systems of farm forestry, permanent agriculture and improved grazing practices in buffer areas adjacent to national parks and forest reserves; enhanced public/private sector collaboration to improve infrastructure within the parks and reserves; and environmental education programs. These initiatives are an essential complement to the public lands management programs of INRENARE. The Project strategy is based on the following points:

- o- Strengthening the policy, planning and coordination function of INRENARE in the Panama Canal Watershed to insure that programs of public agencies and private organizations in the watershed are appropriate, collaborative and mutually supportive.
- o- Give priority to the management of public lands, particularly national parks, that are the sole responsibility of INRENARE to conserve.
- o- Support an increased role for local NGOs and private organizations to carry out boundary and trail demarcation, construction of basic park infrastructure, community outreach programs, and local environmental awareness programs in buffer areas surrounding parks and forest reserves.

The Project will consist of three integrated components: Panama Canal Watershed Management, National Parks and Wildlands Management, and the Conservation Foundation. Working with a new private conservation foundation, the Project will contribute to the capitalization of a Conservation Trust Fund through financing a "debt-for-nature" swap authorized by the Government of Panama. Trust fund income will augment the resources available for the implementation of the Project, and provide funding for the national parks and sustainable development actions far beyond the life of project.

#### C. End of Project Status

1. Management of the Canal Watershed will be coordinated and supervised by INRENARE and implemented through collaborating government agencies and NGOs. Public lands within the watershed will be protected, and private lands will be zoned and soil conservation land use practices introduced. A capability to perform environmental assessments will be established in INRENARE.

2. The boundaries of eleven (11) national parks and three (3) reserves will be marked. Park staff will be trained, equipped and permanently stationed in the parks and reserves. A total of nine (9) park management plans will be prepared and implemented along with five (5) existing management plans. Encroachment by agriculture and other inappropriate land users in these reserves will be halted.

3. Private landholders and community groups in buffer areas surrounding parks and reserves will have planted 6,000 hectares of trees for fuelwood and other local uses, and will be utilizing sustainable agricultural and improved grazing practices.

4. A Conservation Foundation will be established and operating with adequate long term funding for park protection and sustainable development in the Panama Canal Watershed, rural communities and buffer areas of the National Parks.

#### D. Project Components

##### 1. Panama Canal Watershed Management

a. Objective: The objective of this component is to strengthen the integrated resource management capability of INRENARE in the Panama Canal Watershed and other priority areas. Its purposes are to: (1) assist INRENARE in developing land use policies, prepare integrated watershed management plans, and to coordinate and oversee collaborative programs of the public and private sector in the Canal Watershed; (2) enhance INRENARE capacity to assess and monitor the environmental impacts of on-going or proposed natural resource development actions; and (3) develop and install administrative and financial management systems

in INRENARE to improve its management of national parks and equivalent reserves.

b. Activities: Three activities will be implemented through this component with the advisory assistance provided through a PASA with an appropriate U.S.G. agency such as the Park or Forest Service: interagency coordination and planning; land use classification; and institutional strengthening of INRENARE.

(1) Interagency Coordination and Planning: The Technical Consultative Council (Consejo Técnico Consultivo) of INRENARE, created by law, functions as a national level coordinating body for the management of renewable natural resources. INRENARE has organized subcommittees of this Council for issues dealing with integrated watershed management, called Interagency Technical Committees (CTI) composed of representatives of the public agencies concerned with water resource management--IDAAN, IRHE, CONAMA, etc. These committees are established for six major watersheds which cover most of the country.

The Project will support the work of the Interagency Technical Committee of the Canal watershed so as to improve coordination of activities that affect management of the land within the watershed. This Technical Committee for the Canal watershed includes representatives of INRENARE's technical departments, in addition to other public agencies. The Panama Canal Commission will be added as a member in the future as will those GOP organizations concerned with the physical planning of the reverted areas of the former Canal zone. Besides improving coordination among agencies at the implementation level, recommendations of this Committee, which are channeled to the INRENARE Board of Directors, will help set policies for directing development and controlling land use within the Canal Watershed.

The Committee's first task will be to formulate a watershed management plan that will integrate the activities of the implementing agencies. The Project will assist this policy formulation and planning work by compiling available information on agency plans and projects, identifying critical problems and priority geographic areas, and identifying public and private resources available to assist with implementation of appropriate activities. Emphasis will be given to the buffer zones surrounding protected areas and on activities which intensify appropriate productive uses of the land. Another crucial task of the Committee will be to reach consensus on a technically sound and practical system of land use zoning, formalized and enforced by the appropriate authorities. The Project will provide short-term technical assistance in watershed management and natural resource policy to INRENARE in support of the Interagency Technical Committee.

(2) Land Use Classification: The Project will improve INRENARE's land use classification system with an initial focus on land management within the Panama Canal watershed as the area of highest economic priority and under the severest stress from population growth and the expansion of potentially destructive land use practices. The assessment of land use capability and development potential is the basis for environmental policy formulation and planning of watershed management. With this basic information available, INRENARE will have a foundation for the assessment of the environmental impacts of present land uses and proposed development actions such as road construction, hydroelectric Projects, and urbanization. This information will also provide a technical justification for decisions by INRENARE in exercising its regulatory function of controlling land use.

In addition to the Panama Canal Watershed, environmental studies will be carried out by INRENARE on activities that have potentially significant environmental impacts in other areas. These studies will be initially carried out on: (1) road construction planned in or near INRENARE resource management units such as national parks and forest reserves; (2) forest utilization concessions proposed on public lands and in the forest reserves; and (3) major development activities in other watersheds with critical resource use problems.

The Project will provide short-term technical assistance and training to INRENARE staff in land use classification and the development of standards and specialized skills in the interpretation of natural resource data for assessing environmental impacts.

(3) Institutional Strengthening: The Project will assist the Director General of INRENARE to improve the capability of the institution to effectively manage a system of national parks. Specific assistance in forest management will be considered at a later date. The project will finance short-term technical assistance in parks administration and will provide local technical assistance to INRENARE to improve overall administrative, personnel, financial management and accounting, and information management systems and procedures.

INRENARE, with the assistance of the project technical advisors, will prepare an organizational development plan that will take into account the immediate operational priorities of the institution during the next five years. A revised organizational manual will be prepared on the basis of operational priorities that will restructure the agency following sound management principles--span of control, concentration of effort, delegation of authority and accountability. The manual will identify the number of posts assigned to each function, describe the function of that post, and list the qualifications for occupancy. In parallel, a salary table appropriate to the

requirement of each post will be developed for INRENARE.

INRENARE currently has a total of 84 employees assigned to park management activities. To adequately manage 11 parks and 3 reserves, INRENARE will need to hire or reassign from within the institution an additional 280 employees. A detailed discussion of staff requirements in each national park and reserve is provided under the description of the National Parks Management component.

INRENARE is an autonomous government agency with a board of directors that has the authority to establish salary levels and allowances. A promotion policy based on merit will be established and additional allowances for staff assigned to remote duty stations proposed. The organizational structure, the functional manual and table of posts and the proposed salary table will be approved by the Board of Directors of INRENARE and implemented in accordance with an approved organizational development plan.

The organizational development plan will also include a strategy for staff development. An assessment of individual staff capabilities to occupy the posts required by INRENARE will be carried out by INRENARE department directors with the assistance of project technical advisors. On the basis of skill requirements of the Institute, and the assessment of individual capabilities, a staff development program will be prepared. This program will include job rotation, on-the-job training, continuing skills development and competitive promotion.

The project will finance the services of a local financial management and accounting firm to help INRENARE develop and install a computerized management information system for finance, personnel, payroll administration and procurement. The design of the accounting systems will relate budgets and cost control by department, Project and land management units. It will also be used to relate performance to financial data for monitoring and evaluation. The management systems will require INRENARE to prepare annual work plans and budgets for all project related activities. The financial system will also provide for accurate recording of accounts receivable from forest and water concessions, and other fees and fines collected by INRENARE. Procedural manuals will be developed and staff trained to assure that administrative personnel, managers and field staff understand the purposes and procedures of administrative systems and the requirements to maintain system integrity.

c. Outputs:

-o- The Panama Canal Watershed Interagency

Technical Committee will be functional, and have agreed on policies, operational plans and coordinated activities for the management of the watershed.

- o- The land of the Canal Watershed will be zoned in accordance with an appropriate land classification system, and resource use and development will be regulated by INRENARE in coordination with other agencies.
- o- INRENARE will have an ability to identify and assess the impacts of current land use and proposed development and to prescribe mitigation measures.
- o- INRENARE will have appropriate administrative and financial management systems to effectively support a national system of parks and forest reserves.

d. Inputs: A total of \$1,874,630 is budgeted for this project component for technical assistance (\$1,635,000), training (\$74,000) and commodities and equipment (\$165,630). INRENARE will provide the equivalent of \$977,242 for personnel and operating costs. The Cost Estimate and Financial Plan (Tables IV-1 and IV-2) contains a detailed estimate of component costs.

The project will finance both long and short-term technical assistance through a PASA agreement with an appropriate U.S.G. agency such as the National Park or Forest Service. Final decisions with respect to agency selection will be based on discussions with USDA/OICD. A total of sixty (60) person-months (pms) of long-term technical assistance will be provided. The advisor will have overall responsibility for advising INRENARE in the area of national parks and reserves management. A total of 40 person-months of short-term technical assistance in land use classification (5 pms), watershed management (5 pms), natural resource policy (10 pms), parks administration (10 pms) and environmental assessment (10) will also be provided to INRENARE under the PASA. The Project will also provide a total of 21 person-months of local technical assistance to INRENARE in financial management and accounting (10 pms), personnel management (5 pms), computer systems management (5 pms) and preparation of an administration manual (1 pm). A total of 150 hours of local legal services and an additional 150 hours of aerial overflight of parks and forests is also budgeted.

The Project will finance local training courses for a total of 350 INRENARE participants. This training will include financial management and accounting, personnel management and organizational development workshops. A total of 7 interagency

coordination workshops for representatives from other agencies involved in the Canal Watershed will be organized. A more detailed description of this training is contained in the training plan in Section IV below.

The project will also finance 6 vehicles (2 for technical advisors and 4 for INRENARE department directors), a basic radio communication system, computers, and office equipment for INRENARE's central headquarters. A more detailed list of the commodities to be funded under the project is provided in the procurement plan in Section IV below.

INRENARE's recurrent costs associated with this project, including vehicle operation and maintenance, salaries, office supplies etc. will be financed with INRENARE counterpart funding.

## 2. National Parks and Wildlands Management

a. Objective: The objective of this project component is to conserve the biological diversity of Panama through the protection and management of national parks and equivalent reserves. The purposes are: (1) to provide adequate on-site protection for national parks and reserves that contain significant ecological systems and provide downstream watershed and other environmental benefits; and (2) to identify, protect and manage endangered ecosystems, natural communities and species.

b. Activities: Project activities under this component will be carried out by INRENARE with assistance from the PASA long-term advisor, short-term advisors from ROCAP's RENARM Project and local NGOs. The National Parks and Wildlands Management component will support four principal activities:

(1) Parks and Reserves Protection: Project activities will be carried out in the following eleven (11) national parks and three (3) reserves:

<u>NATIONAL PARKS</u>	<u>HECTARES</u>	<u>NUMBER OF PERSONNEL</u>	<u>EXISTING MGT PLAN</u>
Soberanía	22,104	16	X
Chagres	129,000	30	X
Darién	575,000	15	X
La Amistad	207,000	6	
Bastimentos	13,226	1	
Volcán Barú	14,000	4	
Altos de Campana	4,816	7	X
Portobelo	34,846	3	X
El Cope	6,000	1	
Cerro Hoya	32,557	0	
Sarigua	8,000	0	

<u>WILDLIFE REFUGES</u>	<u>HECTARES</u>	
Isla Taboga	260	1
Isla de Iguana	3,000	0
Palo Seco	197,000	0

Initial efforts will focus on those areas where population pressure and resource degradation are the most severe. Priority on-the-ground actions will be focused on those parks and reserves most threatened by the entrance of squatters or other uncontrolled development: Chagres, Soberanía, Portobelo and Altos de Campana National Park in the Panama Canal watershed; La Amistad and Volcán Barú national parks and the adjoining Palo Seco reserve in the headwaters of the Caldera, Chiriqui Viejo, Changuinola and Teribe watersheds; and Darién Biosphere Reserve in the Chucanaque watershed. The initial list of 11 parks and 3 reserves to receive project assistance may be expanded during project implementation to include additional areas declared as national parks or reserves by the Government of Panama.

Management plans exist for 5 parks. Individual management plans will be prepared for the remaining 6 parks and 3 reserves which lack them. The plans will identify the INRENARE field staff required to adequately manage each park, existing infrastructure and any additional requirements, vehicle and other equipment needs, annual operational budget requirements and recommend the types of activities (tourism, research, etc.) to be permitted within the park. RENARM park management and park planning advisors will assist INRENARE to prepare these plans as a first step in the implementation of this project component.

INRENARE has made a preliminary estimate of the minimum infrastructure required in each park and reserve to insure an adequate level of protection and to establish a permanent physical presence in these areas. The Financial Analysis (Annex F) contains a list of existing infrastructure in each park and the minimum additional structures that are required. The project will finance the construction of protection and park management structures such as park headquarters buildings, support buildings, ranger residences, entrance stations and back-country outposts. The architectural design and construction contracts for this infrastructure will be competitively bid under A.I.D. contracting procedures. Local private non-profit conservation organizations and private firms will be competitively contracted to survey and post the boundaries of protected areas, mark trails, and install basic infrastructure such as fences, gates, signs and tourist facilities (nature trails, camping sites, etc.). A more detailed estimate of construction costs and preliminary floor plans are provided in Annex K.

(2) Park System and Reserve Personnel: INRENARE's staff of 84 park personnel is insufficient for managing 11 parks and 3 reserves covering an area of over 1.25 million hectares. A

total of 7 out of 14 parks/reserves have no staff whatsoever or only one employee. Half of the employees are stationed in the Soberania and Chagres parks located near the capital city. INRENARE has estimated that 280 additional staff positions must be filled to establish a permanent physical presence in the 11 parks and 3 reserves. Table III-1 contains a list of the number, location and types of additional staff positions required by INRENARE in the national park system.

The project will provide in-country training for national park system personnel in park management and protection. Training courses will be organized with the assistance of short-term advisors from the RENARM project. RENARM technical advisors will prepare training materials and conduct basic, intermediate and advanced park management courses. A more detailed description of this training is provided in the Project Training Plan.

(3) Parks and Reserves Management: The Project will finance RENARM technical assistance to support baseline inventories of the natural resources in the parks and reserves, and to record present occupancy, tenure and use. This information will be used to identify, protect and manage endangered species and ecosystems and plan sustainable uses that are compatible with the protected area's objectives. Surveys will be repeated periodically to monitor the impacts of resource use and to modify management and development actions.

The ANCON Conservation Data Center (CDC) will assist in the installation of a computerized database for the INRENARE National Parks and Wildlife Department that focuses on protected areas, land tenure and park and reserve management actions. INRENARE park personnel will also receive training in CDC techniques for land and resource management applications.

(4) Policy and Planning: The RENARM technical advisors will assist INRENARE to complete the drafting of a National Parks and Equivalent Reserves Law and in the development of policies and plans for its implementation. The law will define the criteria for classifying each type of designated reserve (national park, biosphere reserve, protection forest, wildlife refuge, etc.) and will set standards for their use. Private land conservation mechanisms (e.g., management concessions, conservation easements, voluntary dedications, use restrictions, etc.) will also be defined. Park and reserve area classifications will be examined and changed where appropriate. Annual Operations Plans and Management Plans will be prepared for each protected area with specific performance objectives, budgets and calendars.

TABLE III-1

## INRENARE PERSONNEL REQUIREMENTS

PERSONNEL	SOBERANIA PARK		CHAGRES PARK		DARIEN PARK		LA AMISTAD PARK		BASTIMENTO PARK		PALO SECO RESERVE		BARU VOLCANO		TOTAL NO. PERSONNEL		ANNUAL SALARY	TOTAL COST PERSONNEL	
	CURR	NEW	CURR	NEW	CURR	NEW	CURR	NEW	CURR	NEW	CURR	NEW	CURR	NEW	CURR	NEW		CURRENT	NEW HIRE
Park Directors	1	0	1	0	1	0	1	0	1	0	0	1	1	0	6	1	12,000	72,000	12,000
Administrators	1	0	4	0	1	3	1	1	0	1	0	0	0	1	7	6	7,000	49,000	42,000
Nature Guides	2	2	0	4	0	5	0	4	0	2	0	0	0	4	2	21	6,500	13,000	136,500
Rangers	9	11	15	20	13	27	4	20	0	5	0	10	3	7	44	100	3,900	171,600	390,000
Secretaries	1	2	3	1	0	4	0	2	0	1	0	1	0	2	4	13	3,250	13,000	42,250
Manual Laborers	2	1	4	0	0	4	0	2	0	1	0	0	0	2	6	10	2,275	13,650	22,750
Boatmen	0	2	0	3	0	4	0	2	0	1	0	0	0	0	0	12	2,275	0	27,300
Watchman	0	3	3	1	0	4	0	2	0	1	0	1	0	2	3	14	2,275	6,825	31,850
TOTAL	16	21	30	29	15	51	6	33	1	12	0	13	4	18	72	177		339,075	704,650

PERSONNEL	CAMPANA PARK		PORTOBELLO PARK		EL COPE PARK		CERRO HOYA PARK		SARIGUA PARK		TABOGA RESERVE		IGUANA RESERVE		TOTAL NO. PERSONNEL		ANNUAL SALARY	TOTAL COST PERSONNEL	
	CURR	NEW	CURR	NEW	CURR	NEW	CURR	NEW	CURR	NEW	CURR	NEW	CURR	NEW	CURR	NEW		CURRENT	NEW HIRE
Park Directors	1	0	1	0	1	0	0	1	0	1	0	0	0	0	3	2	12,000	36,000	24,000
Administrators	1	0	0	1	0	3	0	2	0	0	1	0	0	1	2	7	7,000	14,000	49,000
Nature Guides	0	2	0	2	0	4	0	2	0	2	0	2	0	1	0	15	6,500	0	97,500
Rangers	4	6	1	9	0	10	0	10	0	4	0	4	0	4	5	47	3,900	19,500	183,300
Secretaries	0	1	1	0	0	3	0	2	0	1	0	1	0	1	1	9	3,250	3,250	29,250
Manual Laborers	0	1	0	1	0	3	0	2	0	1	0	1	0	1	0	10	2,275	0	22,750
Boatmen	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	3	2,275	0	6,825
Watchman	1	1	0	1	0	3	0	2	0	1	0	1	0	1	1	10	2,275	2,275	22,750
TOTAL	7	11	3	15	1	26	0	21	0	10	1	10	0	10	12	103		75,025	435,375

GRAND TOTAL															84	280		414,100	1,140,025
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c. Outputs:

- o- Management objectives and operating plans will be finalized/prepared and implemented for eleven (11) parks and three (3) reserves, and these areas will be marked and posted, and management and protection infrastructure will be in place.
- o- A total of 34 INRENARE park directors and administrators and 196 rangers will be trained in park management and protection.
- o- Baseline data on all 14 parks and reserves will be collected and established in a computerized database. Resurveys will be made after three years to analyze trends.

d. Inputs: A total of \$5,505,112 is budgeted for this project component for technical assistance (\$750,000), training (\$128,000), commodities and equipment (\$1,408,312) and construction (\$3,218,800). INRENARE will provide the equivalent of \$5,196,375 in counterpart funding for operations and personnel costs. The Conservation Trust Fund will finance approximately \$8.1 million of park system operations and maintenance costs. The Cost Estimate and Financial Plan (Tables IV-1 and IV-2) contains a summary estimate of these project costs.

In addition to the long-term advisor provided to work with INRENARE park officials, the project will finance a buy-in to the RENARM project, which has a cooperative agreement with a consortium of U.S. NGOs, to provide technical assistance and training in parks and reserves management. A total of fifty (50) person-months of short-term technical assistance in park management (15 pms), park planning (15 pms), wildlife management (15 pms) and CDC/data management (5 pms) will be provided under the RENARM buy-in.

A park supervision course for park directors and administrators (40 participants) and park guard courses (196 participants) for rangers will be funded under the Project. A more detailed description of this training is contained in the Project Training Plan.

The Project will finance the construction of 21 park administration offices, 17 back-country stations, 25 maintenance buildings, 27 staff residences, 33 guard shelters, miscellaneous tourist facilities in 22 areas and 12 entrance booths in the 14 parks and reserves. USAID will competitively contract for local A&E services and for construction of the above noted facilities, all of which will be designed to reflect local building styles and materials and simple construction techniques. Detailed cost

estimates and floor plans for this construction are provided in Annex K.

A total of 848 kilometers of park boundaries and 110 kilometers of trails will be marked, and basic park structures such as fences, gates, signs, trails and camping sites installed. This light construction will be carried out by local environmental NGOs and private firms contracted by the Project. A more detailed list of the construction to be funded under the project is provided in the Project Procurement Plan.

The Project will also finance 13 four-wheel drive pickups, 22 motorcycles and 20 boats with outboard motors. To insure the proper use and maintenance of vehicles and other equipment, the Project Agreement will contain covenants requiring INRENARE to use these commodities exclusively for Project purposes, and provide within three months following delivery of project-funded vehicles and motorcycles the names and positions of the INRENARE officials to which the vehicles are assigned as well as evidence of the establishment and implementation of a vehicle maintenance reporting system acceptable to the Mission.

The Project will procure a radio communication system that will connect all 14 parks and reserves with one another and with the INRENARE central office. The system will include portable radios for park rangers, base station radios for park administration offices and back-country stations, vehicle radios and 2 repeaters. The 2 repeaters will compliment 5 existing repeaters and will allow all users of the system to intercommunicate on a nation-wide basis. The radio communication system will be extremely important for the protection of the parks and reserves, especially from illegal deforestation activities.

The Project will also procure office equipment (including computers), basic furniture, electrical generators, firefighting equipment, ranger uniforms, etc. Audiovisual equipment will also be procured for use by the environmental educators in each park and reserve. A more detailed list of the commodities to be funded under the project is provided in the Project Procurement Plan.

### 3. Conservation Foundation

a. Objective: The objective of this project component is to enhance public and private sector collaboration in the management of Panama's natural resources. The Project will: (1) help to endow a Conservation Foundation (NATURA) with a permanent source of funding (Conservation Trust Fund) whose income will finance environmental activities of both public and private organizations; and (2) strengthen the institutional capability of the foundation to manage the Trust Fund as well as assist local NGOs and rural communities to carry out sustainable agriculture,

environmental education and reforestation programs.

b. Activities: The following activities will be carried out under this component:

(1) Conservation Foundation: The Project will support a Conservation Foundation by assisting in the capitalization of a trust fund dedicated to financing environmental activities and in providing technical assistance for institutional strengthening. Recently, the non-profit foundation, NATURA, was legally established by Presidential Decree (Statutes of incorporation are attached as Annex J). NATURA's resources will be dedicated to the following types of activities:

- o- Conservation and protection of the natural resources of the Panama Canal Watershed.
- o- NGO reforestation programs with emphasis on private land owners and community groups within the Panama Canal Watershed.
- o- NGO environmental education programs with emphasis on rural communities and buffer zones near national parks and protected natural areas of the country.
- o- Conservation of biological diversity of Panama, with emphasis on the protection of rare endemic species that are threatened or endanger of extinction.
- o- Inventory of flora and fauna and applied scientific research on the conservation of renewable natural resources of the country.

(a) Board of Trustees: The Foundation will have a Board of Trustees composed of seven (7) members: a representative of the President of Panama (identified by the President as CARITAS); the Minister of Planning and Economic Policy of Panama in his capacity as President of the Board of INRENARE; the Director General of the Smithsonian Tropical Research Institute; the President of the National Association for the Conservation of Nature (ANCON); the Vice-President for Latin America of The Nature Conservancy; a representative of the Foundation for Economic Development (Fundacion ANDE); and a representative of the National Association for Reforestation (ANARAP). The presence of at least four (4) board members will constitute a quorum and decisions of the board will be made by majority vote. A unanimous vote of all seven (7) board members

will be required for adding new trustees, and for dissolution of the Foundation.

Should the Foundation be dissolved for any reason, NATURA's statutes of incorporation require it to give its remaining assets to another non-profit organization that has objectives similar to its own. In an agreement to be signed by the Nature Conservancy and NATURA, which provides for the transfer of the Conservation Bonds, the Conservancy and A.I.D. will be given the right, during the life of the project, to approve all transfers of their proportionate shares of Project Financed resources remaining upon dissolution of the Foundation. A.I.D.'s review and approval of this agreement will be a condition precedent to disbursement for the debt conversion to the Nature Conservancy. In addition, the debt conversion agreement signed by A.I.D., the Nature Conservancy and the GOP will contain a provision for this requirement.

(b) NATURA Staff: NATURA will limit its activities to the management of the Trust Fund, review and approval of proposals and disbursements to qualifying conservation activities, and management of the technical assistance and training provided for NGOs under this project. To carry out these responsibilities NATURA will maintain a small core staff. In order to avoid using excessive amounts of Trust Fund income, staff will be limited to the following positions: Executive Director, financial manager, three program specialists, two secretaries and a driver/messenger. This staff will support the work of the Board of Trustees and a Technical Committee to be composed of voluntary members.

The Executive Director, who will be appointed by and report directly to the Board of Trustees, will be responsible for hiring the staff of the Foundation. The Executive Director will present all funding requests, as well as progress and financial reports to the Board for their final review and approval.

A Technical Committee will be established to review and make recommendations on specific proposals, as well as assist the NATURA staff to monitor the activities the foundation finances. Members of the Technical Committee will be appointed by the Board of Trustees and will provide their services without compensation. Although appointed by the Board, Committee members will be made up of individuals from outside the Board. Individuals with specific knowledge and expertise will be invited to become members. The specific mix of member expertise in any given session of the Technical Committee will vary depending upon the type of the proposal(s) to be reviewed or the activity to be discussed. NATURA staff will follow-up on recommendations and other assignments made by the committee.

Preliminary criteria for selecting NGO's as well as proposal will be developed as a condition precedent to initial disbursement for operational and initial program costs of NATURA. These will be modified and refined as the foundation gains experience implementing project activities.

NATURA's staff will be responsible for recording requests for grants, assisting the Technical Committee on program matters, coordinating Project technical assistance and training provided to local NGOs, preparing the agenda of the board, recording its decisions, implementing disbursement instructions, financial management and accounting of NATURA's limited operating budget, tracking performance of grantee program implementation and preparing periodic and annual reports to its donors. Initially, ANCON will provide some limited administrative support to the Foundation while permanent staff is being hired. The project will assist NATURA to develop the capacity to effectively carry out its responsibilities through the provision of technical assistance from RENARM and local sources.

The financial administration of the trust fund accounts will be provided by a commercial bank or other financial agent experienced in trust fund management. This institution will be competitively selected by the Board to hold the Conservation Bonds, receive GOP interest payments on the Bonds, advise on financial management, and to disburse funds upon the instructions of the Board of Trustees.

(c) Foundation Operating Budget: NATURA will have a limited budget, estimated at \$200,000 annually (8% of base income from the debt swap) to finance its costs of operation. Table III-2 contains a projected cash flow for NATURA covering the first seven years of operation. Approximately \$155,000 of NATURA's operational budget will be funded from semi-annual GOP interest payments on the Conservation Bonds and the remaining \$45,000 will be derived from interest earnings on the GOP interest payments deposited in a local commercial bank. Additionally, \$280,331 of grant funding is budgeted for NATURA's initial operating expenses, commodities and NGO Program costs.

The Executive Director will present annual budgets, prepared by the staff of the Foundation, to the Board of Trustees for review and approval. The budget will contain estimates of the amount of funding required for the Foundation's operations during the coming year.

TABLE III-2

## NATURA CASH FLOW PROJECTION

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	TOTAL
STARTING BALANCE	0	0	34,375	68,750	103,125	137,500	171,875	
FUNDING SOURCES								
A.I.D. Grant	280,331							280,331
GOP Interest Payments		2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	15,000,000
Interest on Interest		46,875	46,875	46,875	46,875	46,875	46,875	281,250
TOTAL CASH IN	280,331	2,546,875	2,581,250	2,615,625	2,650,000	2,684,375	2,718,750	16,077,206
EXPENSES								
Operational Costs	14,550	40,698	41,512	42,343	43,190	44,054	44,935	271,282
Personnel Costs	75,313	153,638	156,711	159,843	163,039	166,299	169,625	1,044,468
Commodities	90,468							90,468
Bank Fees		12,500	12,500	12,500	12,500	12,500	12,500	75,000
Program Funding	100,000	2,305,664	2,301,777	2,297,814	2,293,771	2,289,647	2,285,440	13,874,113
TOTAL CASH OUT	280,331	2,512,500	2,512,500	2,512,500	2,512,500	2,512,500	2,512,500	15,355,331
ENDING BALANCE	0	34,375	68,750	103,125	137,500	171,875	206,250	

## ASSUMPTIONS:

- 1) Debt swap takes place at end of year 1
- 2) \$2.5 million annual interest from bonds starts at the beginning of year 2.
- 3) Interest earned on average undisbursed balance (\$625,000) in separate account is 7.5%
- 4) 2% inflation factor on operational, personnel and program costs.
- 5) Negative 2% inflation factor on program funding for reforestation and NGO activities.
- 6) The annual bank fee is 0.5% on GOP interest payments.

## NATURA Annual Personnel Costs

Executive Director	30,000
Financial Manager	20,000
Technicians (3)	45,000
Secretaries (2)	20,000
Driver/messenger	5,500
Salary Benefits (25%)	30,125
TOTAL	150,625

(d) Trust Fund Capitalization: The initial capital of the Trust Fund will be provided by a "Debt-for-Nature" swap. The debt swap is critical to the objectives of the project since it will provide a long-term source of financing for the administrative costs of managing the parks. It is hoped that over time NATURA support for the parks and also for NGO environmental activities will become financially institutionalized.

It is anticipated that the debt swap will be carried out in the following manner: (1) The Nature Conservancy, will utilize \$10 million to purchase GOP commercial debt on the secondary market in accordance with A.I.D.'s Debt for Development Guidelines. A.I.D. will contribute \$8 million to the swap; U.S. and international NGOs will contribute an additional \$2 million; (2) The GOP will exchange this debt for a new issue of Conservation Bonds in the name of NATURA with a face value of approximately \$50 million; (3) the Conservation Bonds will have a 30-year term from date of issuance; and (4) the GOP will pay 5% annual interest (paid semi-annually) on the bonds and guarantee interest payments of at least \$2.5 million a year to NATURA during the thirty-year term. The bonds will be donated to the GOP at the end of this period. A financial agent such as a commercial bank, obtained competitively, will administer the Trust Fund and the income generated by it.

Once the final details of the swap are negotiated by the GOP and The Nature Conservancy, a Subgrant Agreement will be signed with The Nature Conservancy to fund the transaction. NATURA will also sign a separate agreement with the Nature Conservancy which will include conditions that it must agree to such as management and utilization of the Trust Fund and their income produced by it as well as disposal of assets if the Foundation is dissolved during the life of the project. The Project Agreement will include a condition precedent to disbursement of funds for the debt swap under which the Mission will concur with the final terms of the swap and the NATURA/Nature Conservancy agreement.

Additionally, NATURA will seek donations from public and private sources to further capitalize the trust fund. Donations may be direct gifts of Panamanian commercial debt, cash for the purchase of debt, or other assets which the Foundation would hold or convert to cash. Income from a donation may be unrestricted as to use, or reserved to finance a specific project or may be restricted to specific activity by the donor--for example, protection of the Darien National Park, social forestry with communities in the Canal Watershed, purchase of in-holdings in the Chagres National Park, etc. Specific accounts will be established within the trust fund in accordance with the instructions of the donor. The income from these accounts will be segregated, managed and accounted for separately, and used solely for the approved purposes. Income generated from the initial debt

swap assisted by A.I.D. will be allocated to the following activities:

- o- INRENARE recurrent costs for the implementation of the National Parks and Wildlands Management project component (approximately \$1.3 million annually);
- o- Reforestation activities of local NGOs (approximately \$600,000 annually);
- o- Community Conservation grants for various environmental activities (approximately \$400,000 annually).
- o- NATURA operational costs (approximately \$200,000 annually).

NATURA will not be an implementing agency, and all activities financed by the trust fund will be executed by INRENARE, qualified local NGOs and community groups in accordance with proposals, work plans and budgets approved by the Board of Trustees.

(2) Local NGO Development: The Project will strengthen the institutional capabilities of selected local NGOs to implement environmental programs through provisions of technical assistance and training. Technical assistance provided under the Project will assist NATURA develop preliminary criteria for selecting both NGOs and their individual proposals. These criteria are expected to be refined as experience is gained through Project implementation. A.I.D. will review and approve the preliminary criteria prior to disbursement of funds for NATURA's operational and initial program costs. Local NGOs will be assisted to carry out the following types of activities in collaboration with INRENARE: (a) promotion of sustainable agriculture and soil conservation practices by land holders in critical watersheds and in buffer areas surrounding parks and reserves; (b) environmental education programs; and (c) reforestation involving small landholders and rural community groups. Peace Corps volunteers will work directly with local community groups in support of these objectives.

(a) Sustainable Agriculture: Poor farming and grazing practices are the most destructive factors in the Canal Watershed. Grazing is the predominant land use and the major incentive for deforestation. Farmers are unwilling to accept conservation practices if they are not combined with programs aimed at improving yields. The Project will assist local NGOs working with community groups, cooperatives, church groups and other grass

roots organizations in the introduction of improved pastures to increase cattle production and reduce the pressure for further deforestation. In land classified by INRENARE as suitable for pasture management, local NGOs will promote the use of improved grazing practices by farmers. The NGOs will provide farmers with improved grass seed, and assist them in preparing planting sites. The combination of tree planting with grazing management will be promoted using tree species which enrich the soil and provide dry season forage in addition to fuelwood and other products. Progressive individuals in grass roots organizations will be trained in extension methods to increase their effectiveness in the promotion of effective pasture management systems among the members of their groups.

To protect farmer investment in trees, permanent agriculture and improved pastures, the Project will introduce soil conservation measures designed to reduce runoff velocity and erosion. These practices will include mixed permanent and annual cropping, agro-forestry, alternative tilling practices, and stream and gully control structures. Local extensionists, employed by collaborating NGOs, will be trained in soil and water conservation methods as a part of the technical package they will promote. NGOs will work with local community groups, cooperatives, and rural associations to encourage farmers to adopt sustainable agricultural practices.

(b) Environmental Education: The Project will support the environmental education programs of selected local NGOs with technical assistance and training as well as financial support from NATURA. Priority will be placed on NGO programs that engage the participation and support of local communities in the protection and management of national parks and reserves. Local NGOs will develop community organizations in buffer areas surrounding protected areas. The Project will provide technical assistance and training to support communities in the implementation of activities which promote: agro-forestry and soil conservation; bio-intensive gardens; safe pesticide use and integrated pest management; small scale processing of forest products; and water and sanitation systems. NGOs and Peace Corps volunteers will work in priority protected areas and buffer zone communities to expand the effectiveness of these community outreach activities.

(c) Reforestation: The Project will provide support to selected local NGOs, such as the National Association of Reforesters of Panama (ANARAP), to carry out reforestation activities. The NGOs will advise community groups on establishing nurseries and provide nursery inputs such as plastic bags, seeds and other materials which will be used as an incentive for farmers to participate. Farmers will grow their own seedlings and will sell their excess production to others. It is expected that this market will increase in importance over time and tree seedlings

will eventually become a cash crop for small farmers.

The Project will also provide the short-term services of a reforestation credit advisor to determine the feasibility of establishing a Reforestation Credit Fund. If it is determined to be technically feasible, the Fund will be located in a commercial bank and will make its resources available to private land owners at market interest rates.

NATURA will provide up to \$600,000 of Trust Fund income annually for reforestation activities, including a possible Commercial Reforestation Credit Fund.

c. Outputs:

- o- The NATURA Board of Trustees appoints members to the Technical Committee, and an Executive Director and staff is in place;
- o- NATURA's Trust Fund is capitalized through a debt-for-nature swap and the Foundation is disbursing funds for environmental activities of public and private organizations;
- o- The clearing and degradation of forest land in the Canal Watershed is controlled and the productivity of existing land holders increased.
- o- Total tree planting equivalent to 6,000 hectares will be established in the Canal Watershed and central Panama. At least 600,000 seedlings per year will be produced by the farmers.
- o- At 50 sites on critical watersheds, and in the buffer areas surrounding national parks and forest reserves, trees will be planted and sustainable farming and grazing practices adopted.

d. Inputs: A total of \$9,250,331 is budgeted for this project component for: Trust Fund capitalization through a debt-for-nature exchange (\$8,000,000); for technical assistance to NATURA and local NGOs (\$650,000); for training (\$320,000), for commodities (\$90,468); and for NATURA first-year operational and program costs (\$189,863). Further detail is included in the Cost Estimate and Financial Plan (Tables IV-1 and IV-2).

Project technical assistance and training will be made available to local NGOs through a buy-in to the RENARM Tree

Crop Outreach Agreement with the Tropical Agriculture Center for Training and Research (CATIE). The Project will provide local NGOs with a total of forty (40) person-months of short-term technical assistance. The project will finance agro-forestry advisors (10 pms), environmental education advisors (10 pms), community organization advisors (10 pms), reforestation credit advisors (5 pms) and foundation management advisors (5 pms). The Project will also provide a total of 10 person-months of local technical assistance to NATURA in financial management and accounting (7 pms) and computer systems management (3 pms). The Project will also finance the initial operational costs of the foundation and provide program funding for local NGO activities.

Through the RENARM buy-in, the project will finance training courses for NGO extension workers, local farmers and community leaders in supervisory skills, forest nursery management, extension techniques and organization of local community groups. A total of 770 tree nursery managers, farmers and community leaders will be trained. A more detailed description of this training is contained in the Project Training Plan.

To provide NATURA with the minimum amount of information management capability to track disbursements from the Trust Fund and monitor activities it finances, the project will fund 3 computer systems. Four 4-wheel drive vehicles will be procured to assist NATURA to adequately monitor field activities. The Project will also finance 8 sets of furniture for NATURA's offices. A more detailed list of the commodities to be funded under the project is provided in the Project Procurement Plan.

#### 4. Other Project Requirements:

An additional \$1,369,927 is budgeted for a local A.I.D. Project Monitor (\$300,000), evaluation and audit (\$350,000) and for inflation and contingencies (\$719,927).

#### IV. PROJECT IMPLEMENTATION

##### A. Obligation Arrangements

The Ministry of Planning and Economic Policy (MIPPE) and INRENARE will sign the \$18 million Project Agreement with A.I.D. A Sub-grant Agreement will be subsequently signed with The Nature Conservancy and NATURA to cover the A.I.D. contribution to the debt-for-nature swap. It is expected that the Project Agreement will be signed in the third quarter of CY 1991.

##### B. Project Management

The allocation of implementation responsibilities is designed to strengthen the planning, coordination and public resources management functions of INRENARE as the lead public agency responsible for regulating natural resource use in Panama and of NATURA as the leader in privately funded natural resource activities. It will also strengthen the capability of local NGOs to implement field activities that complement and advance national priorities of conservation and sustained development of natural resources. A third consideration in the proposed implementation arrangements is minimizing the administrative workload of both INRENARE and USAID/Panama to the extent practicable.

1. INRENARE Implementation Responsibilities: INRENARE will be responsible for the implementation of the Panama Canal Watershed Management and the National Parks and Wildlands Management components of the project. INRENARE's role in the Project will emphasize planning, coordination and control of the public sector components. In the Canal Watershed Management component, the INRENARE Directorate of Watershed Management, will be responsible for the preparation of watershed management plans, and coordinating and supporting the activities of other public agencies and conservation NGOs that work in watersheds throughout the country. Implementation of the National Parks and Wildlands Management component will be the responsibility of the INRENARE Directorate of Parks and Reserves. The most important task for the Directorate will be to establish a physical presence in a total of 14 parks and reserves, and provide adequate full-time protection for these areas. Finally, INRENARE will implement the activities designed to achieve its own management restructuring and administrative strengthening. The Director of Finance and Administration will be responsible for the project activities designed to restructure the administrative and financial management procedures of INRENARE. INRENARE will use contracted services of national consultants and organizations--NGOs, cooperatives or associations, private firms--where appropriate.

The Director General of INRENARE will have overall management responsibility within the GOP for the Project. In this task he will be assisted by the Director of the Planning and Evaluation Unit, and a Project Technical Committee formed by the directors of the appropriate technical branches. The directors will be responsible for planning and oversight of the activities in their sphere of responsibility, and monitoring the work done under contracts or agreements with NGOs.

INRENARE will prepare yearly workplans and budgets for the use of project funds which will be approved by A.I.D. INRENARE will also provide A.I.D. with quarterly and annual progress reports describing how the activities under their direct responsibility are being implemented and identifying major problem areas in need of management attention. INRENARE will provide A.I.D. with a final report within three months after the PACD.

2. Conservation Foundation: NATURA will manage the conservation foundation component, initially assisted by local and expatriate short-term technical assistance. In addition, a financial agent such as a commercial bank will be contracted to administer the trust fund. NATURA will submit annual workplans to A.I.D. outlining proposed activities to be financed under the project by the Foundation during the year with funds associated with the Project-financed debt swap. The work plans will include program activities, expected funding levels, and NATURA's annual operating budget. During the life of the Project, NATURA will provide A.I.D. with semi-annual program progress reports and a copy of its annual report describing overall activities of the fund, progress made by implementing agencies, problems faced by these agencies in implementing their programs as well as corrective actions taken by them. NATURA will also provide A.I.D. with a final report three months after the PACD.

3. Local NGO Participation: The individual activities financed with resources from the Conservation Foundation component will be implemented by local NGOs with technical assistance and training provided by the RENARM Project. Project activities of improved land use through sustainable agriculture and soil conservation practices on private lands within the Panama Canal Watershed will be implemented through collaborating NGOs and community organizations. The community outreach and environmental awareness campaigns to be funded by NATURA will also be implemented by local NGOs. Similarly, it is planned that INRENARE will contract NGOs for the work of parks and forest reserves boundary delineation, and the construction of basic park protection facilities (fences, gates, trails, etc.).

4. USAID Responsibilities: The Mission's Office of Private Sector Development will have primary responsibility for Project management in the Mission. A Project Officer (local PSC) will be contracted under the Project to provide project implementation

monitoring services. A Project Implementation Committee including representatives from the Controller, Program and Project Development and Executive Offices will be formed within the Mission to regularly review the implementation status of the Project. Other Mission staff will support implementation as needed to monitor construction, training, and procurement activities.

The Mission will assume some implementation responsibilities under the project. Early in project implementation, the Mission will be responsible for the competitive procurement of project commodities and contracting of A&E/construction services activities, actions required to effect the buy-in to the RENARM project and the provision of long and short-term technical assistance under the PASA arrangement.

5. Peace Corps: Peace Corps volunteers will work in priority protected areas and buffer zone communities in support of community activities. These volunteers will play an intermediary role with local communities to strengthen the capacity of the NGO sponsored outreach activities. Peace Corps will coordinate with A.I.D. on its environmental outreach programs.

#### C. Cost Estimate and Financial Plan

The total cost of this seven-year Project is estimated to be US\$41.2 million. USAID will provide a grant of US\$18.0 million. The GOP will provide approximately \$6.2 million for INRENARE salaries and operational program support. In addition, the GOP will provide \$15.0 million in interest payments to NATURA for project activities over a six-year period. Finally, the NGOs will contribute \$2 million in counterpart to support the debt-for-nature swap. Approximately \$720,000 of the non debt-for-nature swap budget is allocated for inflation and contingencies. The Financial Plan by Project Component (Table IV-1) and by Project Input (Table IV-2) are presented below. More detailed cost estimates are found in Annex F.

TABLE IV-1  
 COST ESTIMATE AND FINANCIAL  
 PLAN BY COMPONENT (\$000)

PROJECT COMPONENTS	A. I. D.	C. P.	TOTAL
<b>A. Panama Canal Watershed Management</b>			
Parks Management Advisor	900		900
Short-term Advisors	600		600
Local Technical Advisors	135		135
Training	74		74
Commodities	166		166
Operational Costs		977	977
Subtotal	1,875	977	2,852
<b>B. National Parks and Wildlands Mgt.</b>			
Short-term Advisors	750		750
Training	128		128
Commodities	1,408	858	2,266
Construction	3,219		3,219
GOP Funded Operational Costs		4,339	4,339
Trust Funded Operational Costs		8,107	8,107
Subtotal	5,505	13,304	18,809
<b>C. Conservation Foundation</b>			
Short-term Advisors	600		600
Local Technical Advisors	50		50
Training	320		320
Commodities	90		90
Debt-For-Nature Grant	8,000	2,000	10,000
Reforestation and NGO Activities	100	5,667	5,767
NATURA Operational Costs	90	1,226	1,316
Subtotal	9,250	8,893	18,143
<b>D. Other Direct Costs</b>			
AID Project Manager	300		300
Evaluation and Audit	350		350
Contingency and Inflation	720		720
Subtotal	1,370	0	1,370
<b>TOTAL</b>	<b>18,000</b>	<b>23,174</b>	<b>41,174</b>

TABLE IV-2  
 COST ESTIMATE AND FINANCIAL  
 PLAN BY INPUTS (\$000)

INPUTS	A.I.D.	C.P.	TOTAL
A. Long-Term Advisor	900		900
B. Short-Term Advisors	1,950		1,950
C. Local Technical Advisors	185		185
D. Training	522		522
E. Commodities	1,664	858	2,522
F. Construction	3,219		3,219
G. GOP Funded Operational Costs		5,316	5,316
H. Trust Funded Operational Costs		8,107	8,107
I. NATURA Operational Costs	90	1,226	1,316
J. Debt-For-Nature Grant	8,000	2,000	10,000
K. Reforestation and NGO Activities	100	5,667	5,767
L. AID Project Manager	300		300
M. Evaluation and Audit	350		350
N. Contingency and Inflation	720		720
<b>TOTAL</b>	<b>18,000</b>	<b>23,174</b>	<b>41,174</b>

D. Method of Implementation and Financing

Table IV-3 contains the methods of implementation and financing for the Project.

TABLE IV-3  
METHODS OF IMPLEMENTATION  
AND FINANCING

ITEMS	METHOD OF IMPLEMENTATION	METHOD OF FINANCING	AMOUNT (\$000)
A. Long-Term T.A.	PASA Agreement	Direct Payment	900
B. Short-Term T.A.	PASA Agreement	Direct Payment	600
	RENARM Buy-in	Direct Payment	1,350
C. Local T.A.	AID Contract	Direct Payment	185
	HC Contract	Direct Reimbursement	
D. Training	PASA Agreement	Direct Payment	74
	RENARM Buy-in	Direct Payment	448
	HC Contract	Direct Reimbursement	
E. Commodities	AID Contract	Direct Payment	1,664
F. Construction	AID Contract	Direct Payment	3,184
A&E Services	AID Contract	Direct Payment	35
G. Trust Capital	Debt-For-Nature	Direct Disbursement	8,000
H. NATURA 1-Yr Costs	AID Advance	Direct Reimbursement	190
I. Project Manager	AID PS Contract	Direct Payment	300
J. Evaluation, Audit	AID Contract	Direct Payment	350
K. Conting., Inflat.			720
TOTAL			18,000

## E. Implementation Schedule

A list of key tentative chronological events for the first three years of project implementation is shown below. Annual implementation plans will be prepared by INRENARE and NATURA which will be adjusted to reflect the progress achieved in the preceding year.

### Implementation Activities:

#### Year 1

##### Month 0

- Project Agreement signed with GOP
- Sub-grant Agreement signed with the Nature Conservancy for the debt-swap
- Agreement between NATURA and the Nature Conservancy signed

##### Month 3

- Initial Conditions Precedent (CPs) met by GOP
- CPs to disbursement for Debt-For-Nature-Swap met by NATURA
- NATURA Board of Trustees hires Executive Director

##### Month 4

- Executive director begins hiring NATURA staff
- Technical Committee members appointed by NATURA Board of Trustees

##### Month 5

- Commercial bank competitively selected to manage NATURA Trust Fund
- NATURA submits workplan for remainder of 1991
- Initial short-term technical assistance provided to INRENARE

##### Month 6

- Commodities and equipment quotations evaluated and contracts signed
- Proposals for A&E Services and Construction Supervision evaluated and contractor selected
- Debt swap completed
- Long-term advisor arrives in country
- GOP issues Conservation Bonds consigned to NATURA Trust Fund

##### Month 7

- Park boundary demarcation PIO/T prepared and NGO proposals received
- NGO proposals evaluated and 73 kms of demarcation contracted
- Construction Plans and Invitation For Bids (IFB) prepared by A&E Firm

Month 8

- Construction IFBs approved and published
- RENARM technical assistance begins with parks and local NGOs

Month 11

- Park construction proposals evaluated and Contractor(s) selected

Month 12

- First Interagency Coordination Workshop organized
- Annual Workplan and NATURA Funding Request prepared by INRENARE
- First semi-annual Conservation Bond interest payment made by GOP
- NATURA Board approves first Trust Fund disbursements

Year 2

Month 1

- Construction contractor(s) mobilizes and construction begins on initial park facilities
- NATURA submits yearly work plan and budget for approval
- INRENARE presents annual work plan and budget for approval

Month 2

- Management Plans prepared for 3 parks and approved by INRENARE

Month 3

- Draft law establishing National Forest Reserves prepared by INRENARE
- Construction Proposals for additional park facilities evaluated and contractor(s) selected

Month 4

- Management Plans prepared for 3 parks and approved by INRENARE

Month 5

- Construction contractor(s) mobilizes and construction begins on initial park facilities
- Park supervision course organized for directors and administrators

Month 6

- Personnel Management course organized for INRENARE headquarters supervisors, park directors and administrators
- Park boundary demarcation PIO/T prepared and NGO proposals received
- NGO proposals evaluated and 524 kms of demarcation contracted

Month 7

- Financial Management course organized for INRENARE headquarters supervisors, park directors and administrators

Month 8

- Facilities construction under initial contract completed

Month 12

- Interagency Coordination Workshop organized
- Annual Workplan and NATURA Funding Request prepared by INRENARE
- Conduct Annual External Audit

Year 3

Month 1

- NATURA submits yearly work plan and budget for approval
- INRENARE presents annual work plan and budget for approval

Month 2

- Park boundary demarcation PIO/C prepared and NGO proposals received
- NGO proposals evaluated and 153 kms of demarcation contracted

Month 4

- Facilities construction under second contract completed

Month 6

- Various short-term courses organized for NGO staff

Month 12

- Interagency Coordination Workshop organized
- Annual Workplan and NATURA Funding Request prepared by INRENARE
- Conduct Annual External Audit
- Conduct mid-term Project Evaluation

## F. Evaluation and Audit Plan

1. Evaluations: Two (2) external evaluations of the Project are scheduled. The first evaluation will (1) measure progress towards achievement of the Project purpose; (2) identify problems in execution of activities and propose corrective actions; and (3) recommend changes in the allocation of resources among different Project components. At that evaluation, the performance of the implementing organizations will be assessed, and the scope of the Project adjusted to deal with any constraints or problems identified. The evaluations are scheduled as follows:

### TIMING

### EMPHASIS

#### Year 3

The first evaluation will focus on: compliance with the CPs and covenants by the GOP; the effectiveness of implementation of INRENARE, NATURA and the NGOs. The performance of RENARM technical assistance and training activities will also be reviewed. The administration of the Conservation Trust Fund and the allocation of fund income to INRENARE and NGO activities will be reviewed, and changes in procedures and management recommended if appropriate. The evaluation will make recommendations for any changes in the structure or design of the project which may be called for in order to better achieve the purpose of the project. Four (4) person months of effort will be required for this evaluation.

#### Year 7

The final evaluation, to be conducted within the final four months of the project, will examine overall Project accomplishments in terms of the specific targets of the LOGFRAME and the results of implementation. The lessons learned and technologies developed will be identified. The evaluation will also recommend follow-on activities for natural resources programs in Panama where appropriate. Four (4) person-months of effort will be required for this evaluation.

All evaluations will be planned and carried out jointly by USAID and INRENARE with the assistance of USAID-contracted specialists. The Mission Evaluation Officer will assist in planning the evaluations and recommend the additional studies and independent audits that may be required.

2. Audits: A project funded audit program will be performed on the use of project funds. External audits will be completed on a yearly basis and will be performed by an independent Panamanian accounting firm under contract to the Mission.

## G. Commodity Procurement Plan

1. Responsible Agency: The Director of INRENARE will be primarily responsible for overseeing the procurement of Project-funded commodities. He/she will provide specifications required to initiate procurements, sign PIO/Cs, PILs or other obligating or earmarking documents to authorize the expenditure of Project funds and acknowledge receipt of Project commodities.

2. Authorized Source/Origin: The authorized source/origin of commodities and commodity related services and nationality of suppliers of services for the project is AID Geographic Code 000. Every effort has been made during the planning of this project to maximize procurement of commodities from the United States. However, one of the required items, 125 cc motorcycles are not currently being made in the United States. Additionally, some office furniture will be purchased locally and may have its origins outside the U.S. Thus a waiver to AID Code 935 for 22 motorcycles at an estimated total cost of \$48,400 and \$173,050 worth of office furnishings is included as Annex L.

3. Procurement Agency/Methodology: All project commodities will be purchased under direct AID contracts. Office furnishings will be bought by USAID/EXO/PEP on the local market under RFPs. USAID/EXO/PEP will also purchase the pick-up trucks, motorcycles, boats and outboard motors, and the electric generators under international tenders advertised in the U.S. Likewise, USAID/EXO will purchase the radios under an RFP advertised in the U.S. This RFP will provide for a local services subcontract for installation of the physical facilities needed for the communication system. Either AID/W MS/OP/COMS or USAID/EXO/PEP will purchase the data processing equipment, audio visual equipment, carpenters and mechanics tools, the fire fighting equipment, the uniforms and boots from GSA schedule. It is anticipated that all project commodity procurements will be completed in the first two years of the project.

4. Equipment Lists: Table IV-4 contains the procurement schedule, source/origin and agency for the commodities to be financed under the project. Tables IV-5, IV-6 and IV-7 contain additional information on the amounts and types of equipment and commodities to be financed under the Project. Table IV-5 lists the equipment and commodity requirements of the INRENARE central office and parks, as well as for NATURA. Commodity requirements by Project component is presented in Table IV-6. Additional details on the various items of furniture to be procured for INRENARE is provided in Table IV-7. A Source and Origin Waiver is provided in Annex L.

TABLE IV-4  
NATURAL RESOURCES MANAGEMENT  
PROCUREMENT SCHEDULE

	NO.	UNIT	TOTAL COST		SOURCE	PROCURE
	UNITS	COST	YEAR 1	YEAR 2	ORIGIN	AGENT
<b>VEHICLES</b>						
Pickups, 4WD Diesel	23	18,000	414,000		U.S.	USAID/EXO
Motorcycles 125cc	22	2,200	48,400		Code 935	USAID/EXO
Boats, Outboard Motors	20	5,000	100,000		U.S.	USAID/EXO
SUBTOTAL			562,400			
<b>COMMUNICATION EQUIPMENT</b>						
Repeaters/Duplexers	2	8,000		16,000	U.S.	USAID/EXO
Base Station Radios	45	1,900		85,500	U.S.	USAID/EXO
Base Antennas	45	1,000		45,000	U.S.	USAID/EXO
Vehicle Radios	19	1,500	28,500		U.S.	USAID/EXO
Portable Radios	200	700	140,000		U.S.	USAID/EXO
SUBTOTAL			168,500	146,500		
<b>OFFICE EQUIPMENT</b>						
Computer Systems	7	5,000		35,000	U.S.	USAID/EXO
Photocopiers	3	6,000		18,000	U.S.	USAID/EXO
Audiovisual Equipment	28	5,000		140,000	U.S.	USAID/EXO
Office Furniture (var.)				173,050	Local	USAID/EXO
SUBTOTAL				366,050		
<b>OTHER EQUIPMENT</b>						
Electric Generators 15 KW	15	6,000		90,000	U.S.	USAID/EXO
Electric Generators 8 KW	31	3,000		93,000	U.S.	USAID/EXO
Carpentry/Mechanics Tools	25	1,000		25,000	U.S.	USAID/EXO
Fire Fighting Equipment	35	2,500		87,500	U.S.	USAID/EXO
SUBTOTAL				295,500		
<b>PARK PERSONNEL SUPPLIES</b>						
Uniforms, boots (sets)	303	220	66,660		U.S.	USAID/EXO
Ranger Field Equipment (*)	196	300	58,800		U.S.	USAID/EXO
SUBTOTAL			125,460			
<b>TOTAL</b>			856,360	808,050		
<b>GRANDTOTAL</b>				1,664,410		

TABLE IV 5  
NATURAL RESOURCES MANAGEMENT  
INREARE PROCUREMENT LIST

	CENTRAL OFFICE	SOBERAN. PARK	CHAGRES PARK	DARIEN PARK	AMISTAD PARK	BASTIM PARK	PALO SEC RESERVE	HARU VOLCANO	CAMPANA PARK	PORTOB PARK	EL COPE PARK	C. HOYASARIGUA PARK	TABOGA RESERVE	IGUANA RESERVE	NATURA	NO. UNITS	UNIT COST	TOTAL COST
<b>VEHICLES</b>																		
Pickups, 4WD Diesel	6	1	2	1	2		1	1	1	1	1	1	1		4	23	18,000	414,000
Motorcycles 125cc		4	5		4		1	1	1	2		2	1	1		22	2,200	48,400
Boats, Outboard Motors		2	3	5	3	2				2		1	1			20	5,000	100,000
<b>SUBTOTAL</b>																		562,400
<b>COMMUNICATION EQUIPMENT</b>																		
Repeaters/Duplexers			1	1												2	8,000	16,000
Base Station Radios	1	5	5	8	4	3	3	3	2	2	4	2	1	1	1	45	1,900	85,500
Base Antennas	1	5	5	8	4	3	3	3	2	2	4	2	1	1	1	45	1,000	45,000
Vehicle Radios	6	1	2	1	2		1	1	1	1	1	1	1			19	1,500	28,500
Portable Radios	4	20	35	40	24	5	10	10	10	10	10	10	4	4	4	200	700	140,000
<b>SUBTOTAL</b>																		315,000
<b>OFFICE EQUIPMENT</b>																		
Computer Systems	1	1	1		1										3	7	5,000	35,000
Photocopiers	3															3	6,000	18,000
Audiovisual Equipment	3	2	3	5	3	2		2	2	1	1	1	1	1		28	5,000	140,000
Office Furniture (var.)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			173,050
<b>SUBTOTAL</b>																		366,050
<b>OTHER EQUIPMENT</b>																		
Electric Generators 15 KW			2	5	2		2		1		1	1		1		15	6,000	90,000
Electric Generators 8 KW		2	2		11		4		4		4	4				31	3,000	93,000
Carpentry/Mechanics Tools		2	4	5	2	1	2	1	1	1	1	2	1	1	1	25	1,000	25,000
Fire Fighting Equipment		3	4	5	8	1	2	2	2	1	2	2	1	1	1	35	2,500	87,500
<b>SUBTOTAL</b>																		295,500
<b>PARK PERSONNEL SUPPLIES</b>																		
Uniforms, boots (sets)		32	50	57	34	10	11	18	15	15	20	16	8	9	8	303	220	66,660
Ranger Field Equipment (*)		20	35	40	24	5	10	10	10	10	10	10	4	4	4	196	300	58,800
<b>SUBTOTAL</b>																		125,460
<b>TOTAL</b>																		1,664,410

(\*) Ranger field equipment consists of a backpack (\$50), canteen and belt (\$10), machete (\$5), 2-person tent (\$35), 7X50 binoculars (\$45), mosquito net hammock (\$25), flashlight (\$4), compass (\$30), tarp (\$25), firstaid kit (\$30) and a life jacket (\$25).

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TABLE IV 6  
NATURAL RESOURCES MANAGEMENT  
PROCUREMENT BY COMPONENT

	UNIT COST	CENTRAL OFFICE		NATIONAL PARKS		NATURA FOUNDATION		PROJECT GRAND TOTAL	
		# UNITS	TOTAL COST	# UNITS	TOTAL COST	# UNITS	TOTAL COST	# UNITS	TOTAL COST
<b>VEHICLES</b>									
Pickups, 4WD Diesel	18,000	6	108,000	13	234,000	4	72,000	23	414,000
Motorcycles 125cc	2,200			22	48,400			22	48,400
Boats, outboard Motors	5,000			20	100,000			20	100,000
SUBTOTAL			108,000		382,400		72,000		562,400
<b>COMMUNICATION EQUIPMENT</b>									
Repeaters/Duplexers	8,000			2	16,000			2	16,000
Base Station Radios	1,900	1	1,900	44	83,600			45	85,500
Base Antennas	1,000	1	1,000	44	44,000			45	45,000
Vehicle Radios	1,500	6	9,000	13	19,500			19	28,500
Portable Radios	700	4	2,800	196	137,200			200	140,000
SUBTOTAL			14,700		300,300		0		315,000
<b>OFFICE EQUIPMENT</b>									
Computer Systems	5,000	1	5,000	3	15,000	3	15,000	7	35,000
Photocopiers	6,000	3	18,000					3	18,000
Audiovisual Equipment	5,000	3	15,000	25	125,000			28	140,000
Office Furniture (var.)			4,930		164,652		3,468		173,050
SUBTOTAL			42,930		304,652		18,468		366,050
<b>OTHER EQUIPMENT</b>									
Electric Generators 20 KW	6,000			15	90,000			15	90,000
Electric Generators 8 KW	3,000			31	93,000			31	93,000
Carpentry/Mechanics Tools	1,000			25	25,000			25	25,000
Fire Fighting Equipment	2,500			35	87,500			35	87,500
SUBTOTAL					295,500		0		295,500
<b>PARK PERSONNEL SUPPLIES</b>									
Uniforms, boots (sets)	220			303	66,660			303	66,660
Ranger Field Equipment	300			196	58,800			196	58,800
SUBTOTAL					125,460		0		125,460
<b>TOTAL</b>			165,630		1,408,312		90,468		1,664,410

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TABLE IV-7

## INRENARE FURNITURE REQUIREMENTS

FACILITIES FURNISHING	TOTAL UNITS	UNIT COST	COST/ FACL.	TOTAL COST
<b>INRENARE Central Office (1)</b>				
Director Desk and Chair	1	350	350	
Technician Desk and Chair	4	300	1,200	
Secretarial Desk and Chair	5	250	1,250	
File Cabinets	5	150	750	
Book Shelves	10	80	800	
Chairs	10	18	180	
Small Tables	10	40	400	
Subtotal		1,188	4,930	4,930
<b>Administration Buildings (21)</b>				
Director Desk and Chair	1	350	350	
Technician Desk and Chair	2	300	600	
Secretarial Desk and Chair	3	250	750	
File Cabinets	2	150	300	
Book Shelves	2	80	160	
Chairs	6	18	108	
Small Tables	4	40	160	
Subtotal		1,188	2,428	50,988
<b>Staff Residences (27)</b>				
Livingroom Set	1	900	900	
Book Shelves	1	80	80	
Bunk Beds	3	300	900	
Chairs	4	18	72	
Small Tables	3	40	120	
Subtotal		1,338	2,072	55,944
<b>Back-country Stations (17)</b>				
Work Table	1	200	200	
Book Shelves	2	80	160	
Bunk Beds	3	300	900	
Subtotal		580	1,260	21,420
<b>Guard Shelters (33)</b>				
Work Table	1	200	200	
Bunk Beds	3	300	900	
Subtotal		500	1,100	36,300
<b>NATURA Office (1)</b>				
Director Desk and Chair	1	350	350	
Technician Desk and Chair	4	300	1,200	
Secretarial Desk and Chair	2	250	500	
File Cabinets	5	150	750	
Book Shelves	5	80	400	
Chairs	6	18	108	
Small Tables	4	40	160	
Subtotal		1,188	3,468	3,468
<b>TOTAL</b>				<b>173,050</b>

#### H. Training Plan

The Project Training Plan (Table IV-8) contains a schedule and description of training activities to be financed under the Project.

TABLE IV-8  
 NATURAL RESOURCES MANAGEMENT  
 PROJECT NO. 525-0308

TRAINING PLAN

Training by Component	TOTAL PARTIC.	YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	YR 7	TOTAL \$ COST	ACTIVITY ORGANIZERS	TARGET GROUP
<b>Panama Canal Watershed Mgt.</b>											
Interagency Coord. Workshops	210	30	30	30	30	30	30	30	7,000	INRENARE	Canal Institutions, Agencies, etc.
Organizational Workshops	270		90	90	90				27,000	USG AGENCY	INRENARE Technical Staff, Directors, Rangers, etc.
Personnel Management Training	40		20	20					20,000	Local Firm	INRENARE HQ Staff, Parks Directors, Administrators
Financial Management Training	40		20	20					20,000	Local Firm	INRENARE HQ Staff, Parks Directors, Administrators
SUBTOTAL	560	30	160	160	120	30	30	30	74,000		
<b>National Parks &amp; Wildlands Mgt.</b>											
Park Supervision Course	40		20	20					30,000	RENARM	Park Directors and Administrators
Park Guard Course	196	30	100	66					98,000	RENARM	Park Rangers
SUBTOTAL	236	30	120	86	0	0	0	0	128,000		
<b>Conservation Foundation</b>											
Supervisory Skills Course	50	10	20	20					50,000	RENARM	NGO Administrators, Nursery Managers, Community Leaders
Forest Nursery Management	300	20	100	100	80				90,000	RENARM	NGO Technicians, Nursery Managers, Laborers, Farmers
Extension Techniques Course	300	20	100	100	80				90,000	RENARM	NGO Technicians and Nursery Managers
NGO Organization Course	120		50	50	20				90,000	RENARM	NGO Administrators, Technicians and Community Leaders
SUBTOTAL	770	50	270	270	180	0	0	0	320,000		
<b>TOTAL</b>	<b>1,566</b>	<b>110</b>	<b>550</b>	<b>516</b>	<b>300</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>522,000</b>		

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## V. PROJECT ANALYSES SUMMARIES

### A. Technical Analysis Summary

The project design was examined to determine: (1) whether proposed activities address the most important natural resource problems; (2) if the most suitable and cost effective technical alternatives were selected; and (3) if planned activities are technically feasible at this time in Panama. The linkages among the technical components of the Project and the institutional and social issues were also analyzed.

It was concluded that the project design addresses some of the major problems of natural resource management in Panama: the need to conserve fragile uplands and ecosystems that contain rare and endangered flora and fauna; the destruction of the natural forests; and the need to supply the future demand for fuelwood. It should be noted that the project initially will not focus on an important technical problem related to the low productivity of the natural forests and the need to supply industrial timber requirements in Panama. Given Fiscal Year 1991 U.S. legislative restrictions on assistance to projects or programs that are involved with industrial timber extraction in primary tropical forests, assistance to the forestry sector is not contemplated as an initial component of the project. Nevertheless, the Project addresses critical issues in the natural resources sector that stand on their own and which will contribute to significant reductions in environmental degradation in the country. For this reason, it was decided to continue with the Project. Inclusion of forest management activities at a future date will depend on legislative changes and additional analyses planned for the forestry sector.

The project is built on the technical experience that has been developed in INRENARE through the Watershed Management Project (525-0191) and other activities. The technical actions proposed for this Project have been tried in Panama or elsewhere under comparable conditions. They are the most suitable and cost effective actions which are available for Panama. The Technical Analysis is presented in Annex E.

### B. Financial Analysis Summary

The Financial Analysis examined three issues: (1) government ability to finance public sector counterpart; (2) recurrent costs after the PACD; and (3) AID-funded project costs. It was concluded that sufficient counterpart funding is budgeted in the Project and will be made available by the GOP in the form of INRENARE investment and operational budgets; the recurrent costs of key

activities after the PACD will be to a great extent covered by NATURA trust fund income; and sufficient funding is budgeted for the AID-funded project costs. Although limited experience exists in carrying out debt-for-nature swaps in Latin America, the proposed swap is technically feasible, has the support of the Government of Panama and most importantly will generate significant levels of resources over an extended period of time for natural resource activities in Panama. The Financial Analysis is presented in Annex F.

### C. Economic Analysis Summary

The MARENA Project will provide technical assistance to INRENARE and other Panamanian institutions in a variety of areas relating to public and private management of watersheds, national parks, and wildlands. The project design responds to technical analyses which conclude that human capital and institutional constraints seriously impede protection of the environment in Panama.

Improved management of Panama's natural resource base, the objective of the MARENA activities, will enhance the country's prospects for sustained economic growth over the medium and long term. While the cost of the project inputs can be quantified, the value of the economic benefits cannot. Hence, the MARENA Project cannot be subjected to the usual economic rate of return test. Analysis of alternative design options for the project, however, has convinced the Mission that the design proposed is the most cost-effective alternative available under present circumstances. For example, the Mission considered and rejected the options of carrying out the project entirely through PVO's and of eliminating the debt-for-nature swap. Analysis of protecting existing forests (as will be carried out under the component related to national parks) showed this class of activity to be of lower cost than rehabilitation of deforested areas.

The most important economic issue raised by the Project is the impact on the public sector budget of the debt-for-nature swap. Since Panama uses the U.S. dollar as its currency, there is no real distinction between external and domestic public sector debt. For this reason, the usual advantage of a debt-for-nature swap of trading a dollar debt obligation for a local currency obligation does not apply to the Panamanian case.

In participating in the proposed project, the GOP will be exchanging one dollar of debt for another that is less onerous. Given that the GOP also has options of rescheduling its commercial debt, it was essential to examine the proposed swap to determine that it implies less of a fiscal burden than repaying the debt or rescheduling it.

While the specific terms of the debt swap and of a commercial rescheduling are not known at this point in time because the discount Panamanian commercial debt enjoys in secondary markets fluctuates, the following factors demonstrate that the proposed debt-for-nature swap is a favorable transaction for Panama:

- The interest rate on the new bonds to be issued by the GOP is expected to be 5 percent, while the existing commercial debt carries a typical rate of LIBOR plus 1.5 percent.

- Principal would have to be repaid for the original debt, while principal is forgiven in the debt swap at the end of 30 years.

- The existence of a debt-for-nature swap mechanism, to be pioneered by the MARENA Project, will likely attract additional resources to Panama for the same purpose, while financing the project out of the GOP budget or AID funds is not likely to spur outside financial contributions.

- Under MARENA, government payments of interest on the new bonds will partially be recycled back to the GOP as budget support to INRENARE, while debt service paid to foreign commercial banks would not be available for use by the GOP.

Given the above, plausible scenarios for rescheduling of Panamanian commercial debt do not demonstrate the same benefits to Panama as the debt-for-nature swap proposed under MARENA.

Because the project contemplates small-scale conservation and reforestation activities through PVO's, the Mission looked at the economic returns to similar activities in other countries. For example, PVO's receiving trust fund income from NATURA may promote tree planting in rural areas. Review of World Bank experiences with similar programs satisfied the Mission that such activities have the potential to achieve relatively high rates of economic return.

In sum, the Project is concluded to provide sufficient economic benefit to Panama to justify the investment of AID and GOP funds. The complete economic analysis is presented in Annex G.

#### D. Social Soundness Analysis Summary

The social analysis was used to guide the design of Project components and to confirm the socio-cultural feasibility of the proposed activities. The information for this analysis was compiled through a review of existing social studies, field interviews and discussions with persons concerned with resettlement activities.

It is concluded that the project design in general is appropriate to the socio-cultural context of Panama. The accomplishment of the overall purpose of the Project will introduce changes in the way people perceive and use natural resources. This will require convincing a wide strata of Panamanian society that the protection and proper management of land, water and forests is a sound ecological and economic investment. These are cultural as well as technological changes and within the Panamanian context, can be achieved. The Social Soundness Analysis is presented in Annex H.

#### E. Institutional Analysis Summary

The institutional analysis examines the organizational situation of INRENARE and the institutional capabilities of the new foundation and local NGOs which will implement activities within the Project. The analysis concludes that without significant outside assistance, INRENARE will be unable to exercise its full legislated role for a number of years, which includes a broad range of responsibilities and authorities that are new to the organization. Project funds will focus on institutional strengthening of INRENARE and at the end of the project, INRENARE will have substantially improved its capability to fulfill its mandated functions.

The growth in the capability of private conservation organizations in Panama is a significant development since the original MARENA Project design. Three of these organizations, the Fundación PA.NA.MA (Fundación de Parques Nacionales y Medio Ambiente), ANCON (Asociación para la Conservación de la Naturaleza) and the National Reforestation Association of Panama (ANARAP) are the more significant. All three NGOs are considered to have the institutional capacity to carry out environmental activities under the Project. To ensure their capability, provision for technical assistance to further strengthen them institutionally has been built into the Project.

Although the Fundación para la Conservación de la Naturaleza (NATURA) is relatively new, the work that has gone into preparing its structure, and developing its statutes, reflects the experience of Panamanian and U.S. technical experts familiar with similar organizations in other countries. Based on this experience, the structure and operational mandate of NATURA is considered to be both appropriate and functional. Recognizing however that NATURA can not be expected to fully perform its mandated functions early on in the project, funds will be provided which will focus on institutional strengthening of the foundation and by the end of the project NATURA is expected to be fully capable of managing all of its resources. The Institutional Analysis is presented in Annex I.

F. Environmental Soundness Analysis Summary

The Initial Environmental Evaluation (IEE) prepared for the MARENA Project in 1986 recommended a negative determination. This opinion was based on the intention that the Project implement watershed management actions to mitigate previous degradation and contribute to sustaining land use practices. Further, the Project was designed to strengthen protection and management of national parks and forest reserves and to assist INRENARE to develop an environmental assessment capability to identify and mitigate the impacts that may arise from its programs.

While these assumptions also hold true for the current Project design, U.S. Congressional concern with respect to A.I.D. working in the commercial forestry sector was included in the FY 1991 Appropriations Act which precludes A.I.D. assistance to projects or programs that are associated with industrial timber extraction in primary tropical forests. Although this restriction is contained only in the FY 1991 Act, and legally does not apply to funds appropriated under the Dire Supplemental of FY 1990 (which is the source of the initial obligation of funds for the Project), A.I.D. has decided not to finance assistance to the forestry sector under this Project at this time. A.I.D. will first conduct an environmental assessment of proposed assistance to the forestry sector in Panama. When completed, the Mission will submit the assessment to AID/W for approval. Based on the outcome of the assessment and subject to changes in the FY 1992 legislation related to tropical forestry, A.I.D. will consider assistance to the forestry sector at that time.

## **VI. CONDITIONS, COVENANTS AND NEGOTIATING STATUS**

In addition to the standard conditions and covenants, the following special conditions and covenants will be included in the Project Agreement:

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

Prior to the first disbursement under the Grant, or issuance by USAID of documentation pursuant to which disbursements will be made, the Government of Panama will furnish to USAID, in form and substance satisfactory to USAID:

1. An implementation and financial plan for all the activities to be undertaken by INRENARE during the first year of the Project, including evidence that sufficient GOP counterpart funds have been included in the budgets approved for INRENARE to effectively carry out first year Project activities.

### **B. Condition Precedent to Initial Disbursement other than for Technical Assistance and Training for the Panama Canal Component and for Architectural Design Work**

Prior to the first disbursement under the Grant, or issuance by USAID of documentation pursuant to which disbursement will be made other than for technical assistance and training for the Panama Canal Watershed Management component and for architectural design work, the Grantee (GOP) will furnish to USAID, in form and substance satisfactory to USAID, evidence of: (a) the Grantee having reached a final agreement with the Nature Conservancy to implement a debt-for-nature swap under the Project, and (b) the Nature Conservancy having reached an agreement with the Conservation Foundation providing for the transfer, utilization and disposition of the Conservation Bonds resulting from the proceeds of the debt-for-nature swap.

### **C. Condition Precedent to Initial Disbursement to INRENARE**

Prior to the first disbursement under the Grant to INRENARE, or issuance by USAID of documentation pursuant to which disbursement will be made to INRENARE, the Grantee (GOP) will furnish to USAID, in form and substance satisfactory to USAID, evidence of having established financial management and administrative systems acceptable to USAID to effectively support INRENARE's field operations.

**D. Condition Precedent to Initial Disbursement for Construction**

Prior to the first disbursement under the Grant, or issuance by USAID of documentation pursuant to which disbursement will be made, for each construction activity using Project funds, the Grantee (GOP) will furnish to USAID, in form and substance satisfactory to USAID, the descriptions of the locations of the proposed construction and evidence of INRENARE's having title to the land on which the construction is to take place.

**E. Condition Precedent to Initial Disbursement for the Conservation Foundation's Operational and Initial Program Costs**

Prior to the first disbursement under the Grant, or issuance by USAID of documentation pursuant to which disbursement will be made, for the Conservation Foundation's (NATURA) Operational and Initial Program Costs, NATURA will furnish to USAID, in form and substance satisfactory to USAID, preliminary criteria for both the selection of NGOs and the selection of proposals under the Foundation's subgrant program.

**F. Covenants**

1. Establish and implement, by no later than one (1) year from the date of the Agreement, regulations prohibiting the granting of government loans (including loans of government financing institutions such as the Agricultural Development Bank), concessions and development permits in areas designated as national parks or equivalent reserves except as authorized by INRENARE;

2. Establish and implement, by no later than three (3) years from the date of the Agreement, regulations requiring that the granting of land use rights, mining and timber concessions, river and coastal use permits, and road construction projects be subject to a determination by INRENARE that the proposed land use or development is appropriate and that negative environmental impacts are minimized;

3. Provide INRENARE with adequate central office facilities throughout the duration of the Project;

4. Use all Project-funded equipment, vehicles and commodities provided to INRENARE exclusively for Project purposes, and that this material will be the property of that agency;

5. Provide A.I.D. by no later than three months following delivery of project-funded vehicles (and motorcycles) with the names and positions of the INRENARE officials to which the vehicles are assigned as well as evidence of the establishment and implementation of a vehicle maintenance reporting system acceptable to A.I.D.;

6. Submit to USAID on an annual basis an implementation and financial plan of the Project for all the activities to be undertaken by INRENARE for that year of the Project, including evidence that sufficient GOP counterpart funds have been included in the budgets approved for INRENARE to effectively carry out Project activities; and

7. Establish and implement a law for the National Park System that guarantees the stability and operation of parks and reserves, by no later than one (1) year from the date of the Agreement.

**G. Negotiating Status**

The Project has been developed in close collaboration with INRENARE staff and agreement has been reached on the technical aspects of the design. In addition, input has been received from ANCON and the Nature Conservancy which has been influential in resolving issues related to the design. Several GOP officials at the Ministry of Planning (MIPPE) have been involved in negotiations on the debt swap mechanism and have agreed to the proposed features.

Finally, the various conditions and covenants have also been reviewed with all relevant GOP officials and all concerns have been resolved. Therefore, no additional constraints remain in negotiating the terms and conditions of the Project. The Mission expects the Project Agreement will be signed shortly after approval and authorization of the Project.

**ANNEX A**

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><b>GOAL:</b> To promote sustained economic and social development</p>	<p>Rate of deforestation is decreased.</p> <p>Increase in sustained productive land use.</p> <p>Biodiversity and critical habitats protected.</p> <p>Increase in areas reforested.</p>	<p>Agricultural census</p> <p>Environmental Profile studies</p> <p>Biological Inventories</p> <p>Satellite Analysis</p>	<p>GOP supports project goals and priorities in natural resources conservation and management.</p> <p>Private conservation groups and the general public support</p>
<p><b>PURPOSE:</b> To protect and manage Panama's renewable natural resources, with particular emphasis on the Canal Watershed.</p>	<p><b>End of Project Status (OPS):</b></p> <p>Five key watershed under conservation management.</p> <p>Fourteen parks and reserves have minimum protection.</p> <p>6,000 hectares will be reforested.</p> <p>Trust Fund established to finance NATURA.</p>	<p>INRENARE, MIPPE, MIDA reports Project monitoring/evaluation annual agency reports.</p> <p>Trade and Industry statistics.</p> <p>Trust Fund Audited Reports.</p>	<p>INRENARE restructured for efficient field operations and receives adequate funding.</p> <p>Interagency collaboration achieved.</p> <p>Private sector investment in natural resource management is generated.</p>
<p><b>OUTPUTS:</b></p> <p><b>1. PANAMA CANAL WATERSHED MANAGEMENT</b></p> <p>a. The Panama Canal Watershed Interagency Technical Committee will be functional, with established policies, operational plans and coordinated watershed management activities.</p> <p>b. The land of the Canal Watershed will be zoned in accordance with an appropriate land classification system, resources use and development will be regulated by INRENARE in coordination with other agencies.</p> <p>c. INRENARE will have the ability to identify and assess the impacts of current and proposed land uses, and to enforce the application of prescribed mitigation measures.</p> <p>d. INRENARE will have appropriate administrative and financial management systems to effectively support a national system of parks and forest reserves.</p>	<p><b>Output Indicators:</b></p> <p>a) Interagency Committee organized for each watershed and management plans issued.</p> <p>b) Land use surveys completed and zoning maps prepared for key watershed-Panama Canal.</p> <p>c) Environmental impact assessment, development permits issued, and land use monitored.</p> <p>d) INRENARE producing timely financial and personnel reports.</p>	<p>Minutes interagency meetings watershed management plans.</p> <p>INRENARE records and published maps and reports.</p> <p>Published studies, reports, independent evaluations.</p> <p>Controller certification, Project evaluation reports.</p>	<p>Public agencies will collaborate.</p> <p>INRENARE personnel apply zoning regulations.</p> <p>Land use regulations are applied by INRENARE</p> <p>INRENARE willing to reorganize administrative, financial management and personnel systems.</p>

ANNEX A (Cont.)

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><b>OUTPUTS:</b>  <b>2. NATIONAL PARKS AND WILDLANDS MANAGEMENT</b></p> <p>a. Management plans will be prepared/finalized and implemented for 11 parks and 3 reserves, and these areas will be marked and posted, and management and protection infrastructure will be in place.</p> <p>b. A total of 33 INRENARE park directors and administrators and 196 rangers will be trained in park management and protection.</p> <p>c. Baseline data on 7 parks will be collected and a computerized database established. Resurveys will be done after 3 years to analyze trends.</p>	<p><u>Output Indicators:</u></p> <p>a. 11 parks and 3 wildlife refuges are posted.</p> <p>b. Biological data on parks Chagres, Soberania, Portobelo, Darien, La Amistad, Bastimentos, Cerro Hoyos collected.</p> <p>c. Parks management plans prepared and implemented.</p>	<p>Accounting records and reports.</p> <p>INRENARE records and reports site inspections, independent evaluations.</p>	<p>NGOs and contractors able to perform</p> <p>RENARM Buy-in provides timely technical assistance.</p> <p>RENARM Buy-in provides timely technical assistance.</p>
<p><b>OUTPUTS:</b>  <b>3. CONSERVATION FOUNDATION</b></p> <p>a. NATURA is legally established by Presidential Decree with a Board of Trustees, appointed members to a Technical Committee, and Executive Director and administrative staff.</p> <p>b. NATURA's Trust Fund is capitalized thru a debt-for-nature exchange and disbursements for environmental activities of public and private organizations is initiated.</p> <p>c. The clearing and degradation of forest land in the Canal Watershed will be halted and the productivity of existing land holders increased.</p> <p>d. Total tree planting equivalent to 6,000 hectares will be established in the Canal Watershed and Central Panama. At least 600,000 seedlings annually produced by farmers.</p> <p>e. At 50 sites on critical watersheds and in the buffer areas surrounding national parks and forest reserves, trees will be planted and sustainable farming and grazing practices adopted.</p>	<p><u>Output Indicators:</u></p> <p>a. Records and field inspections.</p> <p>b. Project reports and planting inventories.</p> <p>c. Economic studies and farmer interviews.</p> <p>d. Work procedure analysis, interviews with field staff.</p> <p>e. Demonstration sites established.</p>	<p>Field reports.</p> <p>Independent evaluations.</p> <p>Market studies and analysis.</p> <p>Field inspection.</p>	<p>GOP willingness to issue Presidential Decree</p> <p>Debt-for-Nature swap is successfully negotiated with GOP</p> <p>Trust Fund established. Acceptance of the program by rural families.</p> <p>CATIE experience available to the Project Farmer acceptance of seedling production as a crop.</p> <p>Local community participation and support NGO implementation effective.</p>

ANNEX A (Cont.)

INPUTS:	Project (US\$000):		
	A.I.D.	C.P.	TOTAL
A. Long-Term Advisor	900		900
B. Short-Term Advisors	1,950		1,950
C. Local Technical Advisors	185		185
D. Training	522		522
E. Commodities	1,664	858	2,522
F. Construction	3,219		3,219
G. GOP Funded Operational Costs		5,316	5,316
H. Trust Funded Operational Costs		8,107	8,107
I. NATURA Operational Costs	90	1,226	1,316
J. Debt-For-Nature Grant	8,000	2,000	10,000
K. Reforestation and NGO Activities	100	5,667	5,767
L. AID Project Manager	300		300
M. Evaluation and Audit	350		350
N. Contingency and Inflation	720		720
<b>TOTAL</b>	<b>18,000</b>	<b>23,174</b>	<b>41,174</b>

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## 5C(2) - PROJECT CHECKLIST

Listed below are statutory criteria applicable to projects. This section is divided into two parts. Part A includes criteria applicable to all projects. Part B applies to projects funded from specific sources only: B(1) applies to all projects funded with Development Assistance; B(2) applies to projects funded with Development Assistance loans; and B(3) applies to projects funded from ESF.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP TO DATE? HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT?

A. GENERAL CRITERIA FOR PROJECT

1. FY 1990 Appropriations Act Sec. 523; FAA Sec. 634A. If money is to be obligated for an activity not previously justified to Congress, or for an amount in excess of amount previously justified to Congress, has Congress been properly notified? Yes
  
2. FAA Sec. 611(a). Prior to an obligation in excess of \$500,000, will there be: (a) engineering, financial or other plans necessary to carry out the assistance; and (b) a reasonably firm estimate of the cost to the U.S. of the assistance? (a) Yes. Illustrative plans have been developed and cost estimates made based on prior experience.  
(b) Yes
  
3. FAA Sec. 611(a)(2). If legislative action is required within recipient country with respect to an obligation in excess of \$500,000, what is the basis for a reasonable expectation that such action will be completed in time to permit orderly accomplishment of the purpose of the assistance? N/A

4. FAA Sec. 611(b); FY 1990 Appropriations Act Sec. 501. If project is for water or water-related land resource construction, have benefits and costs been computed to the extent practicable in accordance with the principles, standards, and procedures established pursuant to the Water Resources Planning Act (42 U.S.C. 1962, et seq.)? (See A.I.D. Handbook 3 for guidelines.) **N/A**
5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and total U.S. assistance for it will exceed \$1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability to maintain and utilize the project effectively? **Yes**
6. FAA Sec. 209. Is project susceptible to execution as part of regional or multilateral project? If so, why is project not so executed? Information and conclusion whether assistance will encourage regional development programs. **No**
7. FAA Sec. 601(a). Information and conclusions on whether projects will encourage efforts of the country to:  
(a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.
- a. **No**
  - b. **The Project will promote private and voluntary organization involvement in the protection and management of Panama's natural resource base.**
  - c. **Yes, especially coops.**
  - d. **No**
  - e. **Yes, the Project will provide sustainable agricultural development.**
  - f. **No**
8. FAA Sec. 601(b). Information and conclusions on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise). **Most technical assistance and commodities will be acquired from the U.S. U.S. non-governmental organizations will be contributing resources to the project also.**

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9. FAA Secs. 612(b), 636(h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars. **Panama uses the U.S. dollar and there is, therefore, no local currency that can be utilized in lieu of dollars.**
10. FAA Sec. 612(d). Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release? **No**
11. FY 1990 Appropriations Act Sec. 521. If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity? **N/A**
12. FY 1990 Appropriations Act Sec. 547. Will the assistance (except for programs in Caribbean Basin Initiative countries under U.S. Tariff Schedule "Section 807, which allows reduced tariffs on articles assembled abroad from U.S.-made components) be used directly to procure feasibility studies, prefeasibility studies, or project profiles of potential investment in, or to assist the establishment of facilities specifically designed for, the manufacture for export to the United States or to third country markets in direct competition with U.S. exports, of textiles, apparel, footwear, handbags, flat goods (such as wallets or coin purses worn on the person), work gloves or leather wearing apparel? **No**
13. FAA Sec. 119(g)(4)-(6) & (10). Will the assistance: **a. Yes**  
**b. Yes**  
**c. Yes**  
**d. No**  
(a) support training and education efforts which improve the capacity of recipient countries to prevent loss of biological diversity;  
(b) be provided under a long-term agreement in which the recipient country agrees to protect ecosystems or other

wildlife habitats; (c) support efforts to identify and survey ecosystems in recipient countries worthy of protection; or (d) by any direct or indirect means significantly degrade national parks or similar protected areas or introduce exotic plants or animals into such areas?

14. FAA Sec. 121(d). If a Sahel project, has a determination been made that the host government has an adequate system for accounting for and controlling receipt and expenditure of project funds (either dollars or local currency generated therefrom)? N/A
15. FY 1990 Appropriations Act, Title II, under heading "Agency for International Development." If assistance is to be made to a United States PVO (other than a cooperative development organization), does it obtain at least 20 percent of its total annual funding for international activities from sources other than the United States Government? N/A
16. FY 1990 Appropriations Act Sec. 537. If assistance is being made available to a PVO, has that organization provided upon timely request any document, file, or record necessary to the auditing requirements of A.I.D., and is the PVO registered with A.I.D.? If will be provided
17. FY 1990 Appropriations Act Sec. 514. If funds are being obligated under an appropriation account to which they were not appropriated, has the President consulted with and provided a written justification to the House and Senate Appropriations Committees and has such obligation been subject to regular notification procedures? N/A

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18. State Authorization Sec. 139 (as interpreted by conference report). Has confirmation of the date of signing of the project agreement, including the amount involved, been cabled to State L/T and A.I.D. LEG within 60 days of the agreement's entry into force with respect to the United States, and has the full text of the agreement been pouched to those same offices? (See Handbook 3, Appendix 6G for agreements covered by this provision).
- This will be carried out.**
19. Trade Act Sec. 5164 (as interpreted by conference report), amending Metric Conversion Act of 1975 Sec. 2 (and as implemented through A.I.D. policy). Does the assistance activity use the metric system of measurement in its procurements, grants, and other business-related activities, except to the extent that such use is impractical or is likely to cause significant inefficiencies or loss of markets to United States firms? Are bulk purchases usually to be made in metric, and are components, subassemblies, and semi-fabricated materials to be specified in metric units when economically available and technically adequate? Will A.I.D. specifications use metric units of measure from the earliest programmatic stages, and from the earliest documentation of the assistance processes (for example, project papers) involving quantifiable measurements (length, area, volume, capacity, mass and weight), through the implementation stage?
- N/A. There will be no procurement of commodities in metric quantities.**
20. FY 1990 Appropriations Act, Title II, under heading "Women in Development." Will assistance be designed so that the percentage of women participants will be demonstrably increased?
- The Project will work with local communities in helping to protect the natural resource base. This will include support to grass-roots organizations which include a large percentage of women.**

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21. FY 1990 Appropriations Act Sec. 592(a). N/A

If assistance is furnished to a foreign government under arrangements which result in the generation of local currencies, has A.I.D. (a) required that local currencies be deposited in a separate account established by the recipient government, (b) entered into an agreement with that government providing the amount of local currencies to be generated and the terms and conditions under which the currencies so deposited may be utilized, and (c) established by agreement the responsibilities of A.I.D. and that government to monitor and account for deposits into and disbursements from the separate account?

Will such local currencies, or an equivalent amount of local currencies, be used only to carry out the purposes of the DA or ESF chapters of the FAA (depending on which chapter is the source of the assistance) or for the administrative requirements of the United States Government?

Has A.I.D. taken all appropriate steps to ensure that the equivalent of local currencies disbursed from the separate account are used for the agreed purposes?

If assistance is terminated to a country, will any unencumbered balances of funds remaining in a separate account be disposed of for purposes agreed to by the recipient government and the United States Government?

NOTE: THIS IS A NEW PAGE

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22. FY 1991 Appropriations Act, Sec. 520. N/A  
If funds are to be made available to an international financial institution, will steps be taken to ensure that its United States Government representative can, upon request, obtain (a) the amounts and names of borrowers for all loans of the institution, including loans to employees, and (b) any document developed by or in possession of the institution's management?
23. FY 1991 Appropriations Act Sec. 516. No  
Will any part of the assistance be used for publicity or propaganda purposes within the United States?
24. FY 1991 Appropriations Act Sec. 504. Yes, the contract(s) will contain such a provision.  
If the assistance will be used for making payments on a contract for procurement to which the United States is a party, will steps be taken to ensure that such contract contains a provision authorizing the termination of such contract for the convenience of the United States?
25. FY 1991 Appropriations Act Sec. 503. No  
Will any of the assistance be used to pay pensions, annuities, retirement pay or adjusted service compensation for any person serving in the Armed Forces of the recipient country?
26. FY 1991 Appropriations Act. Sec. 501. N/A  
If the assistance is to be used to finance the construction of any new flood control, reclamation, or other water or related land resource project or program, will steps be taken to ensure that such project or program meets the standards and criteria used in determining the feasibility of flood control, reclamation, and other water and related land resource programs and projects proposed for construction with the United States?
27. FY 1991 Appropriations Act Title II. N/A  
If the assistance is to be used for South Africa, will any of such assistance be used to promote support to organizations or groups which are financed or controlled by the Government of South Africa?
28. FY 1991 Appropriations Act Sec. 510. No  
Will any of the assistance be used to finance the export of nuclear equipment, fuel or technology?
29. FY 1991 Appropriations Act Sec. 524. Yes  
If the assistance will be used for any consulting service through procurement contract, will steps be taken to ensure that such assistance is limited to those contracts where such expenditures are a matter of public record and available for public inspection?

**B. FUNDING CRITERIA FOR PROJECT**

**1. Development Assistance Project Criteria**

a. FY 1990 Appropriations Act Sec. 546 (as interpreted by conference report for original enactment). If assistance is for agricultural development activities (specifically, any testing or breeding feasibility study, variety improvement or introduction, consultancy, publication, conference, or training), are such activities: (1) specifically and principally designed to increase agricultural exports by the host country to a country other than the United States, where the export would lead to direct competition in that third country with exports of a similar commodity grown or produced in the United States, and can the activities reasonably be expected to cause substantial injury to U.S. exporters of a similar agricultural commodity; or (2) in support of research that is intended primarily to benefit U.S. producers?

N/A

b. FAA Sec. 107. Is special emphasis placed on use of appropriate technology (defined as relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor)?

N/A

c. FAA Sec. 281(b). Describe extent to which the activity recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental and political processes essential to self-government.

This project is in response to a specific request of the GOP. It places heavy emphasis on solutions to be developed and carried out by local PVOs.

d. FAA Sec. 101(a). Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth? **Yes.** By helping protect the environment the project will promote the long-term economic development of the country.

e. FAA Secs. 102(b), 111, 113, 281(a). Describe extent to which activity will:

(1) effectively involve the poor in development by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, dispersing investment from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using appropriate U.S. institutions; (1) PVOs financed under the project will work with local communities including the poor to protect parks and nature reserves and develop environmentally safe cultivation and other land use practices.

(2) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward a better life, and otherwise encourage democratic private and local governmental institutions; (2) N/A

(3) support the self-help efforts of developing countries; (3) The project will train and finance local PVOs.

(4) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (4) N/A

(5) utilize and encourage regional cooperation by developing countries; (5) N/A

f. FAA Secs. 103, 103A, 104, 105, 106, 120-21; FY 1990 Appropriations Act, Title II, under heading "Sub-Saharan Africa, DA." **Yes** Does the project fit the criteria for the source of funds (functional account) being used?

g. FY 1990 Appropriations Act, Title II, under heading "Sub-Saharan Africa, DA." **N/A** Have local currencies generated by the sale of imports or foreign exchange by the government of a country in Sub-Saharan Africa from funds appropriated under Sub-Saharan Africa, DA been deposited in a special account established by that government, and are these local currencies available only for

use, in accordance with an agreement with the United States, for development activities which are consistent with the policy directions of Section 102 of the FAA and for necessary administrative requirements of the U. S. Government?

h. FAA Sec. 107. Is emphasis placed on use of appropriate technology (relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor)? **Yes**

i. FAA Secs. 110, 124(d). Will the recipient country provide at least 25 percent of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or is the latter cost-sharing requirement being waived for a "relatively least developed" country)? **Yes**

j. FAA Sec. 128(b). If the activity attempts to increase the institutional capabilities of private organizations or the government of the country, or if it attempts to stimulate scientific and technological research, has it been designed and will it be monitored to ensure that the ultimate beneficiaries are the poor majority? **Yes**

k. FAA Sec. 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civil education and training in skills required for effective participation in governmental processes essential to self-government. **See B1c above**

l. FY 1990 Appropriations Act, under heading "Population, DA," and Sec. 535. Are any of the funds to be used for the performance of abortions as a method of family planning or to motivate or coerce any person to practice abortions? **No**

Are any of the funds to be used to pay for the performance of involuntary sterilization as a method of family planning or to coerce or provide any financial incentive to any person to undergo sterilizations? **No**

Are any of the funds to be made available to any organization or program which, as determined by the President, supports or participates in the management of a program of coercive abortion or involuntary sterilization? **No**

Will funds be made available only to voluntary family planning projects which offer, either directly or through referral to, or information about access to, a broad range of family planning methods and services? **N/A**

In awarding grants for natural family planning, will any applicant be discriminated against because of such applicant's religious or conscientious commitment to offer only natural family planning? **N/A**

Are any of the funds to be used to pay for any biomedical research which relates, in whole or in part, to methods of, or the performance of, abortions or involuntary sterilization as a means of family planning? **N/A**

m. FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise? **Yes**

n. FY 1990 Appropriations Act Sec. 579. What portion of the funds will be available only for activities of economically and socially disadvantaged enterprises, historically black colleges and universities, colleges and universities having a student body in which more than 40 percent of the students are Hispanic Americans, and **Minority firms will be encouraged to bid on all project procurements.**

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private and voluntary organizations which are controlled by individuals who are black Americans, Hispanic Americans, or Native Americans, or who are economically or socially disadvantaged (including women)?

o. FAA Sec. 118(c). Does the assistance comply with the environmental procedures set forth in A.I.D. Regulation 16? Does the assistance place a high priority on conservation and sustainable management of tropical forests? Specifically, does the assistance, to the fullest extent feasible: (1) stress the importance of conserving and sustainably managing forest resources; (2) support activities which offer employment and income alternatives to those who otherwise would cause destruction and loss of forests, and help countries identify and implement alternatives to colonizing forested areas; (3) support training programs, educational efforts, and the establishment or strengthening of institutions to improve forest management; (4) help end destructive slash-and-burn agriculture by supporting stable and productive farming practices; (5) help conserve forests which have not yet been degraded by helping to increase production on lands already cleared or degraded; (6) conserve forested watersheds and rehabilitate those which have been deforested; (7) support training, research, and other actions which lead to sustainable and more environmentally sound practices for timber harvesting, removal, and processing; (8) support research to expand knowledge of tropical forests and identify alternatives which will prevent forest destruction, loss, or degradation; (9) conserve biological diversity in forest areas by supporting efforts to identify, establish, and maintain a representative network of protected tropical forest ecosystems on a worldwide basis, by making the establishment of protected areas a

**Yes. This project's ultimate goal is preservation of Panama's natural resources.**

condition of support for activities involving forest clearance or degradation, and by helping to identify tropical forest ecosystems and species in need of protection and establish and maintain appropriate protected areas; (10) seek to increase the awareness of U.S. Government agencies and other donors of the immediate and long-term value of tropical forests; and (11) utilize the resources and abilities of all relevant U.S. government agencies?

p. FAA Sec. 118(c)(13). If the assistance will support a program or project significantly affecting tropical forests (including projects involving the planting of exotic plant species), will the program or project: (1) be based upon careful analysis of the alternatives available to achieve the best sustainable use of the land, and (2) take full account of the environmental impacts of the proposed activities on biological diversity?

The project will seek to protect the tropical forests. An assessment will be carried before any direct interventions are financed.

q. FAA Sec. 118(c)(14). Will assistance be used for: (1) the procurement or use of logging equipment, unless an environmental assessment indicates that all timber harvesting operations involved will be conducted in an environmentally sound manner and that the proposed activity will produce positive economic benefits and sustainable forest management systems; or (2) actions which will significantly degrade national parks or similar protected areas which contain tropical forests, or introduce exotic plants or animals into such areas?

(1) No  
(2) No

r. FAA Sec. 118(c)(15). Will assistance be used for: (1) activities which would result in the conversion of forest lands to the rearing of livestock; (2) the construction, upgrading, or maintenance of roads (including temporary haul roads for logging or other extractive industries) which pass through relatively undergraded forest lands; (3) the

(1) No  
(2) No  
(3) No  
(4) No

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colonization of forest lands; or (4) the construction of dams or other water control structures which flood relatively undergraded forest lands, unless with respect to each such activity an environmental assessment indicates that the activity will contribute significantly and directly to improving the livelihood of the rural poor and will be conducted in an environmentally sound manner which supports sustainable development?

s. FY 1990 Appropriations Act Sec. 534(a). If assistance relates to tropical forests, will project assist countries in developing a systematic analysis of the appropriate use of their total tropical forest resources, with the goal of developing a national program for sustainable forestry?

If assessment is successfully completed the project may be amended to address issue of tropical forests and this concept will be taken into account.

t. FY 1990 Appropriations Act Sec. 534(b). If assistance relates to energy, will such assistance focus on improved energy efficiency, increased use of renewable energy resources, and national energy plans (such as least-cost energy plans) which include investment in end-use efficiency and renewable energy resources?

N/A

Describe and give conclusions as to how such assistance will: (1) increase the energy expertise of A.I.D. staff, (2) help to develop analyses of energy-sector actions to minimize emissions of greenhouse gases at least cost, (3) develop energy-sector plans that employ end-use analysis and other techniques to identify cost-effective actions to minimize reliance on fossil fuels, (4) help to analyze fully environmental impacts (including impact on global warming), (5) improve efficiency in production, transmission, distribution, and use of energy, (6) assist in exploiting nonconventional renewable energy resources, including wind, solar, small-hydro, geo-thermal, and advanced

biomass systems, (7) expand efforts to meet the energy needs of the rural poor, (8) encourage host countries to sponsor meetings with United States energy efficiency experts to discuss the use of least-cost planning techniques, (9) help to develop a cadre of United States experts capable of providing technical assistance to developing countries on energy issues, and (10) strengthen cooperation on energy issues with the Department of Energy, EPA, World Bank, and Development Assistance Committee of the OECD.

u. FY 1990 Appropriations Act, Title II, under heading "Sub-Saharan Africa, DA" N/A  
(as interpreted by conference report upon original enactment). If assistance will come from the Sub-Saharan Africa DA account, is it: (1) to be used to help the poor majority in Sub-Saharan Africa through a process of long-term development and economic growth that is equitable, participatory, environmentally sustainable, and self-reliant; (2) being provided in accordance with the policies contained in section 102 of the FAA; (3) being provided, when consistent with the objectives of such assistance, through African, United States and other PVOs that have demonstrated effectiveness in the promotion of local grassroots activities on behalf of long-term development in Sub-Saharan Africa; (4) being used to help overcome shorter-term constraints to long-term development, to promote reform of sectoral economic policies, to support the critical sector priorities of agricultural production and natural resources, health, voluntary family planning services, education, and income generating opportunities, to bring about appropriate sectoral restructuring of the Sub-Saharan African economies, to support reform in public administration and finances and to establish a favorable environment for individual enterprise and self-sustaining development, and to take

into account, in assisted policy reforms, the need to protect vulnerable groups; (5) being used to increase agricultural production in ways that protect and restore the natural resource base, especially food production, to maintain and improve basic transportation and communication networks, to maintain and restore the renewable natural resource base in ways that increase agricultural production, to improve health conditions with special emphasis on meeting the health needs of mothers and children, including the establishment of self-sustaining primary health care systems that give priority to preventive care, to provide increased access to voluntary family planning services, to improve basic literacy and mathematics especially to those outside the formal educational system and to improve primary education, and to develop income-generating opportunities for the unemployed and underemployed in urban and rural areas?

v. International Development Act Sec. 711, FAA Sec. 463. If project will finance a debt-for-nature exchange, describe how the exchange will support protection of: (1) the world's oceans and atmosphere, (2) animal and plant species, and (3) parks and reserves; or describe how the exchange will promote: (4) natural resource management, (5) local conservation programs, (6) conservation training programs, (7) public commitment to conservation, (8) land and ecosystem management, and (9) regenerative approaches in farming, forestry, fishing, and watershed management.

Project will finance local PVOs/NGOs to work on protection of the country's national parks and nature reserves. Programs to educate the public about the need to protect the country's natural resources will also be implemented.

w. FY 1990 Appropriations Act Sec. 515. N/A  
If deob/reob authority is sought to be exercised in the provision of DA assistance, are the funds being obligated for the same general purpose, and for countries within the same region as originally obligated, and have the House and Senate Appropriations Committees been properly notified?

2. Development Assistance Project Criteria  
(Loans Only)

a. FAA Sec. 122(b). Information and conclusion on capacity of the country to repay the loan at a reasonable rate of interest. N/A

b. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete with U.S. enterprises, is there an agreement by the recipient country to prevent export to the U.S. of more than 20 percent of the enterprise's annual production during the life of the loan, or has the requirement to enter into such an agreement been waived by the President because of a national security interest? N/A

c. FAA Sec. 122(b). Does the activity give reasonable promise of assisting long-range plans and programs designed to develop economic resources and increase productive capacities? N/A

3. Economic Support Fund Project Criteria

a. FAA Sec. 531(a). Will this assistance promote economic and political stability? To the maximum extent feasible, is this assistance consistent with the policy directions, purposes, and programs of Part I of the FAA? Yes  
Yes

b. FAA Sec. 531(e). Will this assistance be used for military or paramilitary purposes? No

c. FAA Sec. 602. If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made? N/A

ANNEX C



República de Panamá

Ministerio de Planificación y Política Económica

**RECEIVED**  
18 ABR. 1991  
CAR SECTION

28 de marzo de 1991  
CENA-083

*0-1-140*

Señor  
**THOMAS W. STUKEL**  
Director de la Agencia de los Estados Unidos para el  
Desarrollo Internacional (USAID/PANAMA)  
E. S. D.

Estimado señor Stukel:

El Consejo Económico Nacional en sesión celebrada el 22 de marzo de 1991, otorgó opinión favorable para que el Gobierno de Panamá solicite, a través del Ministerio de Planificación y Política Económica, a la Agencia de los Estados Unidos para el Desarrollo Internacional (USAID/PANAMA), financiamiento por un monto aproximado de US\$20,000,000 (Veinte Millones de Dólares Estadounidenses), no reembolsables, para el Proyecto "Manejo de Recursos Naturales" (MARENA), cuyo costo total se estima en US\$44,500,000 (Cuarenta y Cuatro Millones Quinientos Mil Dólares), el cual será ejecutado por el Instituto Nacional de Recursos Naturales Renovables (INRENARE), por un periodo de siete (7) años.

El objetivo principal del programa es proteger y administrar los recursos naturales renovables de Panamá para el desarrollo económico y social sostenido del país, con el fin de mejorar el manejo de los suelos, aguas y recursos forestales, a través de acciones coordinadas de los sectores público y privado.

El Proyecto MARENA contempla cuatro (4) componentes a saber:

1. Manejo de la Cuenca del Canal de Panamá
2. Manejo de Parques Nacionales y Areas Silvestres
3. Manejo de Bosques Nacionales
4. Fundación NATURA

OFFICE	ACTION	INFO
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EMD		<input checked="" type="checkbox"/>
EXO		<input checked="" type="checkbox"/>
EXOPROC		
EXOPEN		
EXOPSP		
EXOCONTRA		
EXOADM		
EXOCOMR		
EXOSHIP		
EXOMANT		
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OSPEP		
CONT		
OPA		
PSC		<input checked="" type="checkbox"/>
DESP		
SDA		
HOUSING		
CHRON		<input checked="" type="checkbox"/>
READER		
OTHER		
C.P.		

DUE DATE: 04/20/91  
ACTION: N/A  
ATTACHED:   
INITIALS:

ANNEX C

-2-

Este proyecto va a ser ejecutado con diversas fuentes de financiamiento, las cuales se desglosan a continuación:

- a. US\$7.5 Millones, serán aportados por el Gobierno de la República de Panamá, a través del presupuesto del INRENARE.
- b. US\$15.0 Millones, es decir, una asignación anual de US\$2.5 Millones adicionales, por seis (6) años, serán aportados por el Gobierno de Panamá a la Fundación NATURA, hasta tanto se defina e implemente el mecanismo financiero, que será utilizado en una operación de canje de deuda por naturaleza.
- c. US\$20.0 Millones, objeto de esta solicitud, serán donados por el Gobierno de los Estados Unidos de América a través de la USAID. De esta suma, se destinarán US\$8.0 Millones al uso exclusivo de la operación de canje de deuda por naturaleza.
- d. US\$2.0 Millones, serán aportados por organismos conservacionistas privados de Panamá y el exterior, para la operación de canje de deuda por naturaleza.

El Gobierno de la República de Panamá se encuentra en el proceso de renegociación de su deuda externa con la banca comercial, y aún no se han definido los parámetros de dicha renegociación. Por lo tanto, los señores Miembros del Consejo Económico Nacional, solicitan que la AID reserve los US\$8.0 Millones destinados al canje de deuda por naturaleza, hasta tanto se definan los parámetros en referencia. Se espera que los parámetros de la renegociación de la deuda con la banca comercial se definan en el término de 12 meses, y que el canje de deuda por naturaleza se definirá inmediatamente después.

En el momento en que se pueda proceder con la operación financiera de canje de deuda por naturaleza, el Gobierno de Panamá autorizará a la Fundación NATURA a utilizar hasta US\$10.0 Millones en la recompra de deuda externa pública de la República de Panamá, para efectos de dicho canje.

Así mismo, el Gobierno de Panamá se compromete a definir el mecanismo financiero del canje de deuda por naturaleza que permita generar los ingresos que garanticen la continuidad, después del séptimo año, del Proyecto MARENA.

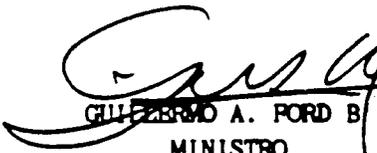
ANNEX C

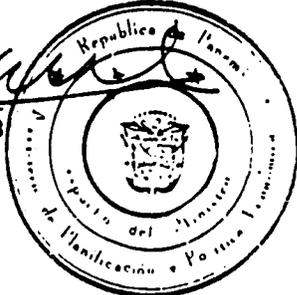
-3-

El Gobierno de Panamá le agradece al señor Director de la USAID/PANAMA, la atención que sabrá dispensar a esta solicitud de financiamiento, dada la prioridad que en el marco del sector correspondiente, tiene este proyecto.

Del señor Director con las muestras sinceras de nuestra consideración más distinguida,

Atentamente,

  
GUILLERMO A. FORD B.  
MINISTRO



GV/myf

c.c.: Miembros del Consejo Económico Nacional

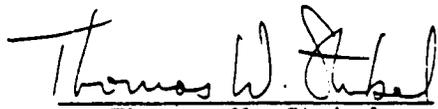
**ANNEX D**

**NATURAL RESOURCES MANAGEMENT PROJECT (525-0308)**

**FAA SECTION 611 (e) CERTIFICATION**

I, Thomas W. Stukel, the principal officer of the Agency for International Development in the Republic of Panama, having taking into account, among other things, the maintenance and utilization of projects in the Republic of Panama previously financed or assisted by the United States, do hereby certify, pursuant to Section 611 (e) of the Foreign Assistance Act of 1961, as amended, that, in my judgement, the Republic of Panama has both the financial capability and the human resources capability to effectively implement, utilize and maintain the proposed Natural Resources Management Project (MARENA) 525-0308.

This judgement is based upon the project analyses as detailed in the Natural Resources Project Paper and is subject to the conditions imposed therein.

  
Thomas W. Stukel  
Thomas W. Stukel  
Director  
USAID/Panama

6/4/91  
Date

## ANNEX E

### TECHNICAL ANALYSIS

The project design was examined to determine: (1) whether proposed activities in each component of the project adequately address the respective natural resource problems identified; (2) if the most suitable and cost effective technical alternatives were selected; and (3) if planned activities are technically feasible at this time in Panama. The linkages among the technical components of the Project and the institutional and social issues were also analyzed.

1. Panama Canal Watershed Management: The Panama Canal Watershed Management component is an expansion of the activities carried out under the previous project. A large watershed cannot be managed by one entity; it requires many public and private institutions working in concert. The Interagency Technical Committee to be created by INRENARE as part of this project is the most appropriate mechanism for interagency coordination and planning, and for determining watershed management and soil conservation strategies. The long-term technical advisor provided under the project will assist INRENARE to exercise its regulatory functions within the canal watershed. The land use classification carried out by INRENARE will be the basis for assessments of land capability and development potential. This information is required for effective environmental policy formulation and planning by INRENARE.

2. National Parks and Wildlands Management: The upland areas of Panama's critical watersheds are legally reserved as National Parks or have been proposed for such status. These fragile areas cannot support intensive use or provide higher sustainable economic values than their present natural ecosystems. The National Parks and Wildlands Management component has the sound strategy of protection followed by planned appropriate use. It is far more cost efficient to control development of a fragile area than to rehabilitate it in the future. Successful park and equivalent reserves programs in many countries, including the U.S. and Costa Rica, have demonstrated that controlled use is the best assurance for conservation. Trying to protect land by "locking it up" has never worked as the pressures for use cannot be resisted. However, due to ecological fragility, the uses allowed must be very carefully planned and documented in management plans for each of the parks and reserves. Techniques for this kind of planning have been introduced in Latin America through AID and other bilateral agencies, as well as through the support of FAO, CATIE, and IUCN.

3. Conservation Foundation

a. Conservation Foundation Establishment

(1) Debt-for-Nature Swap: ANCON, with the support of The Nature Conservancy has proposed a debt-for-nature swap in Panama to finance a Trust Fund of a Conservation Foundation which would create a long-term source of financing for important natural resource activities. Their proposal has been strongly supported by President Endara, and by Vice Presidents Arias Calderon and Ford, as well as by the Controller General and various economic advisors. The Dire Emergency appropriations Act of FY 1990 provided that "up to \$15,000,000 may be used for a debt-for-nature swap and for immediate environmental needs". The international conservation NGOs have indicated their willingness to provide \$2 million as complementary financing to the \$8 million A.I.D. grant for the purposes of the debt swap.

(2) Debt Conversion Terms: The Nature Conservancy will purchase a stock of commercial debt and the GOP has agreed to issue Conservation Bonds with a value no less than \$50 million. The bonds would have a term of 30 years, and pay interest semi-annually at a rate of 5%. The bonds would be returned to the Government of Panama at the end of the 30 year term.

(3) Trust Fund Management: The Conservation Bonds would constitute the capital of a trust fund. The fund will be held and managed by the Foundation for the Conservation of Natural Resources of Panama (NATURA), a new private non-profit Panamanian organization formed expressly for that purpose. The board of trustees of NATURA will be formed by: (a) a member of CARITAS as a representative of the President of Panama; (b) the Minister of Planning and Economic Policy of Panama in his capacity as President of the Board of INRENARE; (c) the Director General of the Smithsonian Tropical Research Institute; (d) the President of the National Association for the Conservation of Nature (ANCON); (e) a representative of the National Association of Reforesters (ANARAP); (f) a representative of the Foundation for Economic Development (Foundation ANDE) and (g) The Nature Conservancy in representation of the international conservation community. A financial agent such as a commercial bank registered in Panama, experienced in trust fund management, will be competitively selected by the foundation to hold the Conservation Bonds. The income from the bonds will be disbursed by the bank upon the instructions of the Foundation. In the event of dissolution, NATURA statutes of incorporation require that any assets be turned over to a non-profit entity with objectives similar to its own.

(4) Use of Trust Fund Income: Income from the trust fund will be used for the long term protection and management of the natural resources of Panama. The trust will finance conservation projects implemented by public and private entities

for the conservation of the Canal watershed; identification, protection and management of national parks, wildlife refuges, and natural areas; restoration and protection of critical wetlands; conservation of endangered species and significant ecological systems; reforestation and restoration of degraded areas; and extension of sustainable development activities to communities in the buffer zones of the protected areas.

Income from donations to the trust fund may be restricted to specific activities by the applicable donor. Specific accounts will be established within the trust fund in accordance with the instructions of the donor. The income from these accounts will be segregated, managed and accounted for separately, and used solely for the purposes intended.

(5) Implementation of the MARENA Debt Swap: It is expected that the debt swap will work in the following manner:

(a) Through the USAID-MIPPE Project Agreement a subgrant of (\$8,000,000) will be provided to the Nature Conservancy. NGOs like ANCON and the Nature Conservancy will raise an additional \$2,000,000 from private sources, either in cash or at the current market value of direct debt donations, as a counterpart to the USAID contribution.

(b) The \$10,000,000 from these sources will be used by the Nature Conservancy to purchase Panamanian commercial debt on the secondary market. The Conservancy will negotiate the most favorable terms for the purchase of the debt to be exchanged. No administrative costs will be deducted or will the NGO receive any commissions from the funds granted for the purpose of the swap.

(c) Debt acquired by the Conservancy will be tendered to the Ministry of Planning and Economic Policy of Panama for conversion to Conservation Bonds issued by the National Bank of Panama in the name of NATURA with the guarantee of the Ministry of Finance.

(d) Income derived from the Conservation Bonds purchased with the USAID grant will be allocated to the following purposes during the life of the Project: (1) INRENARE recurrent costs for the implementation of the National Parks and Wildlands Management project component; (2) Reforestation activities of local NGOs; (3) Community Conservation grants for various environmental activities; and (4) NATURA's operational costs.

(e) NATURA will authorize disbursements of trust income to MARENA Project actions on the basis of requests received from implementing organizations in Panama. These grant requests will include a performance based work plan and a detailed budget. USAID/Panama will retain the right to review and approve grants made with fund income attributable to its donation

throughout the 7-year life of the MARENA Project. In addition, technical assistance provided early in the Project will assist NATURA develop preliminary selection criteria for both NGOs and their Project proposals. These criteria will be refined as experience is gained during Project implementation. Finally, the Trust Fund and the income generated by it will be administrated by an independent financial agent.

b. Local NGO Development

(1) NGO Participation in Project: The Project will use the capabilities of the new foundation NATURA to finance natural resource activities with ANCON, ANARAP and other conservation NGOs implementing natural resource protection programs. Through the Project, ANCON and other conservation NGOs will be encouraged to develop cooperative agreements with INRENARE for specific natural resource management activities. They along with private firms will be contracted to implement boundary demarcation, construction of basic protection structures such as park facilities, signs and trails.

(2) NATURA-Financed NGO Activities: In addition, local NGOs will promote the planting of trees on private lands suitable for forestry, which will provide a future source of fuelwood and industrial timber for national use. This supply will decrease future pressures to over-exploit the natural forest or to cut in protected forests, national parks, and reserves. No major technical problems are foreseen because local NGOs can use the experience gained in the planting of pine on over 4,000 hectares. Also, the ROCAP/CATIE fuelwood project has established and measured growth and yield of 16 species on 50 individual plots, and planted 130 demonstration areas. This experience supported by the ongoing ROCAP/CATIE Regional Tree Crop Production Project is adequate to initiate a major reforestation program on certain sites in western Panama. The introduction of new species to an area should be preceded by species trials under the direction of qualified foresters.

Past projects in Latin America have demonstrated that conservation practices cannot be implemented and maintained unless they are incorporated into the farming systems of the target area. Successful extension of pasture improvement and farm forestry activities have shown that these are technically feasible conservation interventions. New techniques such as agroforestry and mixed grazing-tree farming systems will be field tested before extension by local NGOs.

Watershed management activities will be concentrated in the Panama Canal Watershed. The Bayano, La Villa and Caldera watersheds may be incorporated later in the implementation period of the Project. The emphasis of these actions will be directed at tree planting and grazing management on

private land with cooperating landholders. These activities will build on two previous successes: (1) the Farm Forestry planting program initiated in western Panama with the assistance of the ROCAP/CATIE fuelwood project; and (2) the acceptance of improved pasture demonstrations through the Watershed Management Project. Where technically and economically feasible, mixed tree planting and grazing will be combined.

Other soil conservation practices will be continued with annual crops where they can be incorporated into the extension services of other organizations. The nurseries established under this component will provide seedlings for this program. The grazing management program recognizes that grazing for dairy and beef production is the predominant use in many areas where the land has been deforested, and that fencing, rotation of animals, dry season forage and fattening areas can improve weight gain and milk production while avoiding overgrazing and compaction of the soils.

5. Technical Conclusion: Project design addresses many of the major problems of natural resource management in Panama: the need to conserve fragile uplands and ecosystems that contain rare and endangered flora and fauna; the destruction of the natural forests; and the need to supply the future demand for fuelwood. It is built on the technical experience that has been developed in INRENARE through the Watershed Project and other activities. Most of the technical actions proposed for this Project have been tried in Panama or elsewhere under comparable conditions. They are considered the most suitable and cost effective now available.

## ANNEX F

### FINANCIAL ANALYSIS

This analysis examines three areas: (1) AID-funded project costs; (2) Project counterpart funding requirements and recurrent costs after the PACD; and (3) estimated Trust Fund income.

1. AID-Funded Project Costs: The total cost of the Project is estimated at \$41.174 million with AID-funded costs totaling \$18 million. A detailed estimate of these costs is contained in Table F-1.

a. Technical Assistance: A total of \$3.035 million is budgeted for technical assistance. A total of 100 person months of long-term (60 pms) and short-term (40 pms) assistance will be provided to INRENARE under a PASA arrangement with a U.S. Government agency. In consultation with the USDA Office of International Cooperation and Development (OICD), the cost of this long and short-term technical assistance was estimated at \$15,000 per month for a total cost of \$1,500,000. An additional 90 pms of short-term technical assistance will be provided to the INRENARE park system and to NATURA and local NGOs. The total cost of this short-term assistance is estimated at \$1,350,000 and will be financed through a buy-in to the ROCAP Regional Natural Resources Management (RENARM) Project. The Project will also finance 31 pms of local technical assistance for INRENARE and NATURA at a total cost of \$155,000. The purpose of this local assistance is to install appropriate administrative and financial management systems in these two organizations. Additionally, the Project will finance legal services (150 hours) and aerial overflight (150 hours) of protected areas at a total cost of \$30,000.

b. Training: The Project will finance training activities for approximately 1,356 participants at a total estimated cost of \$522,000. A detailed description of this training and the costs for individual courses and workshops is contained in the Project Training Plan.

c. Commodities: The Project will finance various commodities and equipment at a total cost of \$1,664,410. Additional commodities will be financed with counterpart, estimated to total \$857,818. A more detailed description of the types and amounts of commodities to be funded is contained in the Project Procurement Plan.

d. Construction: A total of \$3,218,800 has been budgeted for construction under the Project. Table F-2 contains a list of the infrastructure to be funded under the Project in the various national parks and reserves. The estimated costs of infrastructure, considered in the Project, were calculated by the unit cost method (architect method) based on historical costs,

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TABLE F 1

NATURAL RESOURCES MANAGEMENT  
PARAMO CANAL WATERSHED MANAGEMENT

PROJECT INPUTS:	TOTAL UNITS	UNIT COST	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5		YEAR 6		YEAR 7		TOTAL		TOTAL COST	
			USAID	C.P.	USAID	C.P.	USAID	C.P.												
<b>TECHNICAL ASSISTANCE (USG PASA)</b>																				
Parks Management Advisor (pms)	80	15,000	90,000		180,000		180,000		180,000		180,000		90,000					900,000	9	900,000
Land Use Classification (pms)	5	15,000	15,000		30,000		15,000		15,000		15,000							75,000	0	75,000
Watershed Management (pms)	5	15,000			15,000		15,000		15,000		15,000		15,000					75,000	0	75,000
Natural Resource Policy (pms)	10	15,000			30,000		30,000		30,000		30,000		15,000		15,000			150,000	0	150,000
Parks Administration (pms)	10	15,000	15,000		45,000		30,000		15,000		15,000		15,000		15,000			150,000	0	150,000
Environmental Assessment (pms)	10	15,000			45,000		30,000		30,000		30,000		15,000					150,000	0	150,000
SUBTOTAL			120,000	0	345,000	0	300,000	0	285,000	0	270,000	0	150,000	0	30,000	0		1,500,000	0	1,500,000
<b>TECHNICAL ASSISTANCE (LOCAL)</b>																				
Financial Mgt & Accounting (pms)	10	5,000	10,000		25,000		15,000											50,000	0	50,000
Personnel Management (pms)	5	5,000	5,000		15,000		5,000											25,000	0	25,000
Computer Systems Management (pms)	5	5,000	5,000		15,000		5,000											25,000	0	25,000
Administration Manual (pms)	1	5,000			5,000													5,000	0	5,000
Legal Services (hrs)	150	100	5,000		10,000													15,000	0	15,000
Aerial Overflight (hrs)	150	100	7,500		7,500													15,000	0	15,000
SUBTOTAL			32,500	0	77,500	0	25,000	0	0	0	0	0	0	0	0	0	0	135,000	0	135,000
<b>TRAINING</b>																				
Interagency Coord. Workshops (ea)	7	1,000	1,000		1,000		1,000		1,000		1,000		1,000		1,000			7,000	0	7,000
Organizational Workshops (pers)	270	100			9,000		9,000		9,000									27,000	0	27,000
Personnel Mgt Training (pers)	40	500			10,000		10,000											20,000	0	20,000
Financial Mgt Training (pers)	40	500			10,000		10,000											20,000	0	20,000
SUBTOTAL			1,000	0	30,000	0	30,000	0	10,000	0	1,000	0	1,000	0	1,000	0		74,000	0	74,000
<b>COMMODITIES</b>																				
Vehicles, 4WD Diesel Pickups (ea)	6	18,000	108,000															108,000	0	108,000
Base Station Radios (ea)	1	1,900			1,900													1,900	0	1,900
Base Antennas (ea)	1	1,000			1,000													1,000	0	1,000
Vehicle Radios (ea)	6	1,500	9,000															9,000	0	9,000
Portable Radios (ea)	4	700	2,800															2,800	0	2,800
Photocopiers (ea)	3	6,000			18,000													18,000	0	18,000
Audiovisual Equipment (ea)	3	5,000			15,000													15,000	0	15,000
Computer Information System (ea)	1	5,000			5,000													5,000	0	5,000
Office Furniture (var)					4,930													4,930	0	4,930
SUBTOTAL			119,800	0	45,830	0	0	0	0	0	0	0	0	0	0	0	0	165,630	0	165,630
<b>OPERATIONAL COSTS (2% Inflation)</b>																				
Vehicle Operation & Maintenance	8	3,600		21,600		22,032		22,473		22,922		23,380		23,848		24,325		0	160,580	160,510
Utilities, Rent, ect. (year)	1	30,000		30,000		30,600		31,212		31,836		32,473		33,122		33,784		0	223,027	223,017
Misc. Materials & Supplies (year)	1	10,000		10,000		10,200		10,404		10,612		10,824		11,040		11,261		0	74,341	74,341
SUBTOTAL			0	61,600	0	62,832	0	64,089	0	65,370	0	66,677	0	68,010	0	69,370	0	0	457,948	457,948
<b>PERSONNEL COSTS (2% Inflation)</b>																				
National Parks Director	1	14,000		14,000		14,280		14,566		14,857		15,154		15,457		15,766		0	104,080	104,080
Environmental Education Director	1	14,000		14,000		14,280		14,566		14,857		15,154		15,457		15,766		0	104,080	104,080
Project Financial Manager	1	10,000		10,000		10,200		10,404		10,612		10,824		11,040		11,261		0	74,341	74,341
Accountants	2	6,500		13,000		13,260		13,525		13,796		14,072		14,353		14,640		0	96,646	96,646
Secretaries	3	3,250		9,750		9,945		10,144		10,347		10,554		10,765		10,980		0	72,485	72,485
Manual Laborers	2	2,275		4,550		4,641		4,734		4,829		4,926		5,025		5,126		0	33,831	33,831
Watchmen	2	2,275		4,550		4,641		4,734		4,829		4,926		5,025		5,126		0	33,831	33,831
SUBTOTAL			0	69,850	0	71,247	0	72,673	0	74,127	0	75,610	0	77,122	0	78,665	0	0	519,294	519,294
<b>TOTAL</b>			273,300	131,450	498,110	134,079	355,010	136,762	295,000	139,497	271,000	142,287	151,000	145,132	31,000	148,035	1,874,630	977,242	2,851,872	

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NATURAL RESOURCES MANAGEMENT  
NATIONAL PARKS & WILDLANDS MANAGEMENT

PROJECT INPUTS	TOTAL UNITS	UNIT COST	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5		YEAR 6		YEAR 7		TOTAL		TOTAL COST
			USAID	C P	USAID	C P	USAID	C P	USAID	C P	USAID	C P	USAID	C P	USAID	C P	USAID	C P	
<b>TECHNICAL ASSISTANCE (REMARK)</b>																			
Parks Management (pms)	15	15,000	15,000		75,000		45,000		45,000		15,000		15,000		15,000		275,000	0	275,000
Parks Planning (pms)	15	15,000	15,000		75,000		60,000		45,000		30,000		30,000		30,000		275,000	0	275,000
Wildlife Management (pms)	15	15,000	15,000		75,000		60,000		30,000		15,000		15,000		15,000		275,000	0	275,000
ODC Data Management (pms)	5	15,000			30,000		15,000		15,000		15,000		15,000		15,000		75,000	0	75,000
SUBTOTAL			45,000	0	255,000	0	180,000	0	135,000	0	75,000	0	30,000	0	30,000	0	750,000	0	750,000
<b>TRAINING</b>																			
Park Supervision Course (pers)	40	750			15,000		15,000										30,000	0	30,000
Park Guard Course (pers)	196	500	15,000		50,000		11,000										90,000	0	90,000
SUBTOTAL			15,000	0	65,000	0	40,000	0	0	0	0	0	0	0	0	0	170,000	0	170,000
<b>COMMODITIES</b>																			
Vehicles, 4WD Diesel Pickup (ea)	13	10,000	234,000														234,000	0	234,000
Motorcycles 125cc (ea)	22	2,200	40,400														40,400	0	40,400
Boats, Outboard Motors (ea)	20	5,000	100,000														100,000	0	100,000
Repeaters/Duplexers	2	8,000			16,000												16,000	0	16,000
Base Station Radios (ea)	44	1,900			83,600												83,600	0	83,600
Base Antennas (ea)	44	1,000			44,000												44,000	0	44,000
Vehicle Radios (ea)	13	1,500	19,500														19,500	0	19,500
Portable Radios (ea)	196	700	137,200														137,200	0	137,200
Computer Systems (ea)	3	5,000			15,000												15,000	0	15,000
Electric Generators 15 KW (ea)	15	6,000			90,000												90,000	0	90,000
Electric Generators 8 KW (ea)	31	3,000			93,000												93,000	0	93,000
Audiovisual Equipment (ea)	25	5,000			125,000												125,000	0	125,000
Office Furniture (var)					164,652												164,652	0	164,652
Carpentry/Mechanics Tools (sets)	25	1,000			25,000												25,000	0	25,000
Fire Fighting Equipment (set)	35	2,500			87,500												87,500	0	87,500
Uniforms, Boots (sets)	303	220	66,660			135,906		130,706		141,400		144,310		147,196		150,140	66,660	857,810	924,470
Ranger Field Equipment (sets)	196	300	50,000														50,000	0	50,000
SUBTOTAL			664,560	0	743,752	135,906	0	130,706	0	141,400	0	144,310	0	147,196	0	150,140	1,400,312	857,810	2,260,130
<b>CONSTRUCTION</b>																			
Park Administration Office (ea)	21	24,000	72,000		216,000		216,000										504,000	0	504,000
Back country Stations (ea)	17	24,300	40,600		194,400		170,100										413,100	0	413,100
Maintenance Buildings (ea)	25	15,400	40,200		169,400		169,400										305,000	0	305,000
Staff Residences (ea)	27	24,000	90,000		280,000		264,000										640,000	0	640,000
Ecotourism Facilities (ea)	22	15,000	45,000		150,000		115,000										330,000	0	330,000
Guard Shelter (ea)	33	4,200	12,600		63,000		61,000										130,600	0	130,600
Entrance Bathes (ea)	12	3,500	10,500		17,500		14,000										42,000	0	42,000
Fences, Gates, Signs (ea)	13	1,500	6,000		7,500		6,000										19,500	0	19,500
Boundary Demarcation (kms)	840	700	122,500		122,500		122,500		122,500		103,600						593,600	0	593,600
Trail Demarcation (kms)	110	1,000	10,000		25,000		25,000		25,000		25,000						110,000	0	110,000
Architect Design and Engineering		35,000															35,000	0	35,000
SUBTOTAL			504,400	0	1,253,300	0	1,105,000	0	147,500	0	120,600	0	0	0	0	0	3,210,000	0	3,210,000
<b>OPERATIONAL COSTS (2% Inflation)</b>																			
Vehicle Operation & Maintenance	13	3,600			46,800												0	46,800	46,800
Motorcycle, Boat O & M	42	1,200			50,400												0	50,400	50,400
Misc Materials & Supplies	30	600			22,000												0	22,000	22,000
SUBTOTAL			0	120,000	0	0	0	0	0	0	0	0	0	0	0	0	0	120,000	120,000
<b>PERSONNEL COSTS (2% Inflation)</b>																			
Park Directors	12	12,000	144,000		110,160		112,363		114,610		116,902		119,240		121,625		0	810,900	810,900
Park Administrators	22	7,000	154,000		64,280		65,545		66,850		68,193		69,557		70,940		0	559,350	559,350
Nature Guides	30	6,500	247,000		13,260		13,525		13,790		14,072		14,353		14,640		0	330,648	330,648
Park Rangers	196	3,000	764,400		194,922		199,820		204,798		209,852		214,980		215,200		0	1,993,900	1,993,900
Secretaries	27	3,250	87,750		10,575		10,907		11,245		11,587		11,932		12,280		0	192,310	192,310
Manual Laborers	20	2,275	50,150		13,973		14,201		14,465		14,775		15,071		15,372		0	140,977	140,977
Boatman	15	2,275	34,125		0		0		0		0		0		0		0	34,125	34,125
Watchman	20	2,275	63,700		9,242		9,460		9,657		9,850		10,047		10,240		0	122,252	122,252
SUBTOTAL			0	1,554,125	0	422,302	0	430,829	0	439,445	0	448,234	0	457,199	0	466,343	0	4,210,557	4,210,557
<b>TOTAL</b>			1,770,960	1,670,125	2,317,052	530,160	1,413,000	560,535	287,500	500,925	283,600	592,544	30,000	604,395	30,000	618,403	5,505,112	5,194,375	10,701,487

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NATURAL RESOURCES MANAGEMENT  
CONSERVATION FOUNDATION

PROJECT INPUTS	TOTAL		YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5		YEAR 6		YEAR 7		TOTAL		TOTAL
	UNITS	COST	USAID	C P	USAID	C P	USAID	C P	USAID	C P	USAID	C P	USAID	C P	USAID	C P	USAID	C P	(COST)
<b>TECHNICAL ASSISTANCE (REHAB)</b>																			
Agro forestry Advisor (pms)	10	15,000	15,000		45,000		30,000		15,000		15,000		15,000		15,000		150,000	0	150,000
Environmental Education (pms)	10	15,000	15,000		45,000		30,000		15,000		15,000		15,000		15,000		150,000	0	150,000
Community Organization (pms)	10	15,000	15,000		45,000		30,000		15,000		15,000		15,000		15,000		150,000	0	150,000
Reforestation Credit Advisor (pms)	5	15,000	30,000		15,000		15,000		15,000		15,000						75,000	0	75,000
Foundation Management (pms)	5	15,000	30,000		15,000		15,000		15,000		15,000						75,000	0	75,000
<b>SUBTOTAL</b>			105,000	0	165,000	0	120,000	0	75,000	0	45,000	0	45,000	0	45,000	0	600,000	0	600,000
<b>TECHNICAL ASSISTANCE (LOCAL)</b>																			
Financial Mgt & Accounting (pms)	7	5,000	15,000		15,000		5,000										35,000	0	35,000
Computer Systems Management (pms)	3	5,000	10,000		5,000												15,000	0	15,000
<b>SUBTOTAL</b>			25,000	0	20,000	0	5,000	0	0	0	0	0	0	0	0	0	50,000	0	50,000
<b>TRAINING</b>																			
Supervisory Skills (pers)	50	1,000	10,000		20,000		20,000										50,000	0	50,000
Forest Nursery Management (pers)	300	300	6,000		10,000		10,000		24,000								90,000	0	90,000
Extension Techniques (pers)	300	300	6,000		10,000		10,000		24,000								90,000	0	90,000
MGO Organization (pers)	120	750			37,500		37,500		15,000								90,000	0	90,000
<b>SUBTOTAL</b>			22,000	0	117,500	0	117,500	0	63,000	0	0	0	0	0	0	0	370,000	0	370,000
<b>COMMODITIES</b>																			
Vehicles, 4WD Diesel Pickup (ea)	4	18,000	72,000														72,000	0	72,000
Computer Systems (ea)	3	5,000	15,000														15,000	0	15,000
Office Furniture (var)			3,468														3,468	0	3,468
<b>SUBTOTAL</b>			90,468	0	0	0	0	0	0	0	0	0	0	0	0	0	90,468	0	90,468
<b>OPERATIONAL COSTS (2X Inflation)</b>																			
Vehicle Operation & Maintenance	1	3,600	1,800		14,400		14,967		15,787		15,500		15,900		16,210		1,000	97,630	94,450
Rent, Utilities, Insurance, etc	1	21,000	10,500		21,470		21,808		22,785		22,731		23,106		23,650		10,500	125,170	145,670
Misc Materials & Supplies	1	1,000	500		1,020		1,040		1,061		1,082		1,104		1,126		500	6,433	6,933
Office Maintenance	1	1,500	750		1,510		1,561		1,597		1,624		1,656		1,689		750	9,652	10,402
Per Diems	1	2,000	1,000		2,040		2,081		2,12		2,165		2,200		2,252		1,000	12,069	13,069
<b>SUBTOTAL</b>			14,550	0	40,698	0	41,517	0	42,343	0	43,190	0	44,054	0	44,935	0	14,550	256,132	271,282
<b>PERSONNEL COSTS (2X Inflation)</b>																			
Executive Director	1	30,000	15,000		30,600		31,217		31,836		32,473		33,127		33,784		15,000	193,027	208,027
Financial Manager	1	20,000	10,000		20,400		20,808		21,224		21,648		22,081		22,523		10,000	120,604	130,604
Environmental Technicians	3	15,000	27,500		45,900		46,818		47,754		48,709		49,683		50,677		27,500	289,541	312,041
Secretaries	2	10,000	10,000		20,400		20,808		21,224		21,648		22,081		22,523		10,000	120,604	130,604
Driver/Messenger	1	5,500	2,750		5,610		5,727		5,836		5,953		6,072		6,193		2,750	35,308	38,136
Fringe Benefits			15,063		30,728		31,343		31,969		32,600		33,240		33,925		15,063	193,833	208,896
<b>SUBTOTAL</b>			75,313	0	153,638	0	156,711	0	159,843	0	163,039	0	166,299	0	169,625	0	75,313	969,155	1,044,488
<b>NATURE Environmental Program</b>																			
IMREARE Operational Costs					127,400		124,848		127,345		129,892		132,490		135,140		0	772,115	772,115
IMREARE Personnel Costs					1,162,826		1,186,003		1,209,805		1,234,001		1,258,671		1,283,855		0	7,335,251	7,335,251
Reforestation Financing					600,000		580,000		576,240		564,715		553,421		547,353		0	3,424,729	3,424,729
MGO Environmental Activities			100,000		470,438		402,846		380,424		365,183		345,955		324,092		150,000	2,242,818	2,242,818
<b>SUBTOTAL</b>			100,000	0	2,305,664	0	2,301,777	0	2,297,814	0	2,293,771	0	2,289,647	0	2,285,440	0	100,000	13,774,113	13,874,113
<b>TRUST FUND CAPITALIZATION</b>																			
A I D Grant			8,000,000														8,000,000		8,000,000
Nature Conservancy Contribution					2,000,000													2,000,000	2,000,000
<b>SUBTOTAL</b>			8,000,000	2,000,000	0	0	0	0	0	0	0	0	0	0	0	0	8,000,000	2,000,000	10,000,000
<b>PROJECT MANAGEMENT</b>																			
A I D Project Manager	1	50,000			50,000		50,000		50,000		50,000		50,000		50,000		300,000	0	300,000
Evaluation and Audit					25,000		125,000		25,000		25,000		25,000		125,000		350,000	6	350,006
Contingency and Inflation			65,409		240,000		210,000		100,000		50,600		10,000		24,518		719,927	0	719,927
<b>SUBTOTAL</b>			65,409	0	315,000	0	385,000	0	175,000	0	125,000	0	105,000	0	199,518	0	1,369,927	0	1,369,927
<b>TOTAL</b>			8,497,740	2,000,000	617,500	2,105,664	627,500	2,301,777	313,000	2,297,814	170,000	2,293,771	150,000	2,289,647	244,518	2,285,440	10,670,258	17,000,000	27,670,258
<b>GRAND TOTAL</b>			10,000,000	1,805,575	1,412,882	2,948,111	2,195,500	3,008,074	840,500	3,018,236	644,600	3,028,607	331,000	3,019,174	305,518	3,049,958	18,000,000	23,173,617	41,173,617

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TABLE F-2

## PARKS CONSTRUCTION REQUIREMENTS

NATIONAL PARKS AND RESERVES:	SOBERANIA PARK		CHAGRES PARK		DARIEN PARK		AMISTAD PARK		BASTIMENTO PARK		PALO SECO RESERVE		BARU VOLCANO		TOTAL NO. UNITS	
	PRES	NEW	PRES	NEW	PRES	NEW	PRES	NEW	PRES	NEW	PRES	NEW	PRES	NEW	PRES	NEW
Administration Office	3	3	1		4	1	1		1		1	1	1	1	5	12
Back-country Stations	2		1		4		2		2		2		1		0	14
Maintenance Building	3		4		4	1	2		1		1		2		1	17
Staff Residence			4		4		6		1		1		1		0	17
Ecotourism Facilities	3		3		1		2		2				2		0	13
Guard Shelter	3	2	3		6	1	4		2				3		3	21
Entrance Booth	3		3										3		0	9
Fences, Gates, Signs	4		3										3		0	10
Boundary Demarcation (km)	50	25	96	150	75	200	75	150	20	10	10		60		316	605
Trail Demarcation (km)	1	50	1	5	1	20		5		2			1	5	4	62
	CAMPANA PARK		PORTOBELO PARK		EL COPE PARK		CERRO HOYA PARK		SARIGUA PARK		TABOGA RESERVE		IGUANA RESERVE		TOTAL NO. UNITS	
	PRES	NEW	PRES	NEW	PRES	NEW	PRES	NEW	PRES	NEW	PRES	NEW	PRES	NEW	PRES	NEW
Administration Office		1		1		3		2		1		1			0	9
Back-country Stations		1		1		1									0	3
Maintenance Building		1		1		3		2		1					0	8
Staff Residence		1		1		3		2		1		1		1	0	10
Ecotourism Facilities		2		2		2				1		1		1	0	9
Guard Shelter		3		2		3		2		1		1			0	12
Entrance Booth		2								1					0	3
Fences, Gates, Signs		2								1					0	3
Boundary Demarcation (km)		38		40		125		25		10		5			0	243
Trail Demarcation (km)		1		5		5		3		2		2		1	1	23

multiplied by the areas of construction. All construction will be structures consisting of concrete floors, cement block walls, windows with wooden or aluminum frames, insulated ceilings, and roof covers of metal or tiles. Most of the construction will be carried out in remote areas with difficult access. Annex K contains preliminary floor plans for the various structures, as well as square meter cost estimates for each type of building.

The \$700 cost per kilometer of boundary demarcation was estimated from local contract work carried out under a previous A.I.D. project that recently ended. Table F-3 contains a summary of the total amounts of infrastructure to be funded and the cost of each type of structure or building.

e. NATURA First-Year Costs: A total of \$280,331 is budgeted for NATURA's operational, equipment and program costs during the first year of the Project; \$90,468 is budgeted for commodities, including 4 vehicles; \$14,550 is budgeted for operational costs; \$75,313 for personnel costs during the first six months of operation; and \$100,000 is budgeted for program costs to fund local NGO activities. These funds will be subgranted to the Nature Conservancy who will in turn provide them to NATURA. Table III-2 contains a cash flow analysis for the foundation for the seven years of the Project.

f. Other Costs: A total of \$300,000 is budgeted for 60 pms of a local-hire AID Project Manager; \$350,000 is budgeted for evaluations and audits; and \$658,327 is budgeted for contingencies and inflation. Table F-1 contains detailed estimates for all of these costs.

2. Project Counterpart Funding: The total counterpart funding requirement for the Project is estimated at \$23,173,617. Of this total amount, INRENARE will provide \$6,173,617 from its Operating Budget, the U.S. NGO community will provide \$2,000,000 to help finance a portion of the debt swap, and \$15.0 million in Trust Fund income will be generated during the life of the Project. The \$15.0 million in Trust Fund income will finance additional budget support for INRENARE's costs of operating the national parks system (\$8.1 million), NGO reforestation activities (\$3.4 million) and miscellaneous environmental activities (\$2.2 million) implemented by local NGOs such as environmental education programs. Table F-4 contains a detailed estimate of counterpart funded costs.

3. Public Sector Counterpart Contribution: INRENARE's total recurrent costs during the seven-year life of the Project, including a 2% annual inflation factor, are estimated at \$14,280,983. Within that figure, the INRENARE central office will require approximately \$977,242 for operational and personnel costs.

The counterpart costs associated with the national parks and reserves is estimated to total \$13,303,741. INRENARE will be

TABLE F-3

## SUMMARY INRENARE CONSTRUCTION

TYPE OF CONSTRUCTION	TOTAL UNITS	UNIT COST	TOTAL COST
Administration Office	21	24,000	504,000
Back-country Stations	17	24,300	413,100
Maintenance Building	25	15,400	385,000
Staff Residence	27	24,000	648,000
Ecotourism Facilities	22	15,000	330,000
Guard Shelter	33	4,200	138,600
Entrance Booth	12	3,500	42,000
Fences, Gates, Signs	13	1,500	19,500
Boundary Demarcation (km)	848	700	593,600
Trail Demarcation (km)	110	1,000	110,000
Architectural Design		35,000	35,000
<b>TOTAL COST</b>			<b>3,218,800</b>

TABLE F-4

NATURAL RESOURCES MANAGEMENT  
COUNTERPART CONTRIBUTION

COUNTERPART FUNDING INPUTS BY COMPONENT	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5		YEAR 6		YEAR 7		TOTAL		TOTAL	
	GOP C.P.	TRUST	GOP C.P.	TRUST	GOP C.P.	TRUST	GOP C.P.	TRUST	GOP C.P.	TRUST	GOP C.P.	TRUST	GOP C.P.	TRUST	GOP C.P.	TRUST	COUNTERPART	
<b>PANAMA CANAL WATERSHED MANAGEMENT</b>																		
Operational Costs	61,600		82,832		64,009		65,370		66,677		68,010		69,370		457,948		0	457,948
Personnel Costs	69,050		71,257		72,673		74,127		75,610		77,122		78,665		519,294		0	519,294
SUBTOTAL	131,450	0	134,079	0	136,762	0	139,497	0	142,287	0	145,132	0	148,035	0	977,242	0	0	977,242
<b>NATIONAL PARKS &amp; WILDLANDS MANAGEMENT</b>																		
Commodities			135,986		118,706		141,480		144,310		147,196		150,140		857,818		0	857,818
Operational Costs	120,000		127,400		174,848		127,345		129,892		132,490		135,140		120,000		772,115	892,115
Personnel Costs	1,554,125		422,382	1,182,826	430,829	1,186,083	439,445	1,209,805	448,234	1,234,001	457,199	1,258,681	466,343	1,283,855	4,218,557	7,335,251	11,553,808	
SUBTOTAL	1,674,125	0	558,368	1,285,226	569,535	1,310,931	580,925	1,337,150	592,544	1,363,893	604,395	1,391,171	616,483	1,418,995	5,196,375	8,107,366	13,303,741	
<b>CONSERVATION FOUNDATION</b>																		
Trust Fund Capital (Nature Conser.)	2,000,000														0	2,000,000	2,000,000	
Reforestation Financing			600,000		588,000		576,240		564,715		553,421		542,353		0	3,424,729	3,424,729	
INGO Environmental Activities			420,438		402,846		384,424		365,163		345,055		324,092		0	2,242,018	2,242,018	
NATURA Operational Costs			194,336		190,223		202,186		206,229		210,353		214,560		0	1,225,887	1,225,887	
SUBTOTAL	0	2,000,000	0	1,214,774	0	1,189,069	0	1,162,850	0	1,136,107	0	1,108,829	0	1,081,005	0	8,892,634	8,892,634	
<b>TOTAL</b>	<b>1,805,575</b>	<b>2,000,000</b>	<b>692,447</b>	<b>2,500,000</b>	<b>706,297</b>	<b>2,500,000</b>	<b>720,422</b>	<b>2,500,000</b>	<b>734,831</b>	<b>2,500,000</b>	<b>749,527</b>	<b>2,500,000</b>	<b>764,518</b>	<b>2,500,000</b>	<b>6,173,617</b>	<b>17,000,000</b>	<b>23,173,617</b>	

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required to cover approximately \$5,196,375 of this amount for the maintenance and operational expenses of the 14 parks and the costs of 84 existing park personnel and 280 additional positions. Starting in year two of the Project, INRENARE will continue to cover the \$422,382 annual cost of the 84 previously existing park personnel, while Trust Fund income will finance the approximate \$1.3 million annual costs of the additional park positions and operational and commodity expenses.

During the life of the Project, the INRENARE counterpart contribution will total \$5.20 million and Trust Fund income support for parks will total \$8.11 million. INRENARE will need to cover an estimated \$765,000 in recurrent annual costs for central office and parks personnel after the Project ends. A.I.D. will seek agreement with NATURA that after the project ends, trust fund income will continue to cover the essential core personnel costs of the park system.

4. Estimated Trust Fund Income: The income resulting from the conversion of \$10,000,000 of combined A.I.D. Grant and NGO contribution will depend on two factors, the terms of exchange for Conservation Bonds discussed above, and the price at which the debt is acquired. Of these two factors, the price at which debt is purchased on the secondary market is the most volatile. The price of debt has ranged from 10 cents on the dollar just before December 20, 1989, rising to a price of 20 cents immediately thereafter, then falling to 10 cents again after three weeks. At a price of 10 cents, \$10 million will purchase \$100 million in debt, a price of 15 cents will buy \$66.7 million, and at 20 cents a total of \$50 million in debt.

For the purposes of the MARENA Project a conservative estimate was made of the income to be expected from a debt-for-nature exchange. Using \$10 million dollars of cash (the USAID Grant and the NGO contribution), it is assumed that \$50 million of Conservation Bonds could be acquired. Income from this capital is assumed to be 5%, \$2.5 million per year. In any case, the GOP has agreed to provide no less than \$2.5 million of interest income per year over the 30 year period for NATURA.

## ANNEX G

### ECONOMIC ANALYSIS

1. Analysis of Debt Swap: The most important economic issue raised by the Project is the impact on the public sector budget of the debt-for-nature swap. Since Panama uses the U.S. dollar as its currency, there is no real distinction between external and domestic public sector debt. Hence, the usual advantage of a debt-for-nature swap of trading a dollar debt obligation for a local currency obligation does not apply to the Panamanian case.

In participating in the proposed project, the GOP will be exchanging one dollar debt for another that is less onerous. Given that the GOP also has options of rescheduling its commercial debt, it is essential to examine the proposed swap to determine that it implies less of a fiscal burden than repaying the debt or rescheduling it.

While the specific terms of the debt swap and of a commercial rescheduling are not knowable at this point in time because the discount Panamanian commercial debt enjoys in secondary markets fluctuates, the following factors demonstrate that the proposed debt-for-nature swap is a favorable transaction for Panama:

- The interest rate on the new bonds to be issued by the GOP is expected to be 5 percent, while the existing commercial debt carries a typical rate of LIBOR plus 1.5 percent.
- Principal would have to be repaid for the original debt, while principal is forgiven in the debt swap at the end of 30 years.
- The existence of a debt-for-nature swap mechanism, to be pioneered by the MARENA Project, will likely attract additional resources to Panama for the same purpose, while financing the project out of the GOP budget or AID funds is not likely to spur outside financial contributions.
- Under MARENA, government payments of interest on the new bonds will partially be recycled back to the GOP as budget support to INRENARE, while debt service paid to foreign commercial banks would not be available for use by the GOP.

Given the above, plausible scenarios for rescheduling of Panamanian commercial debt do not provide the same benefits to Panama as the debt-for-nature swap proposed under MARENA.

2. Analysis of Small Landholder Conservation Activities: In the case of the sustainable agricultural and agro-forestry activities to be carried out by local NGOs with rural landholders and community groups, recent World Bank studies on social forestry have identified small landholder tree plantations as relatively low-cost operations. Costs are less than \$250 per hectare, of which as much as 70 percent can be attributable to family labor. Since this work can be done during the dry season, it does not conflict with agricultural activities and periods of high demand for farm labor. Thus, there is no loss in farmer income.

A World Bank study reported that small farmer tree planting will "yield higher economic rates of return" than government plantation investment. Government programs cost between \$800 and \$1,300 per hectare, and produce economic rates of return of 10 to 15 percent. By contrast, in most of the farm forestry projects financed by the World Bank, total establishment costs range from \$200-500 (1983), with rates of return on the order of 25 to 30 percent. This is mainly a reflection of lower infrastructure, overhead and transportation costs. It is therefore concluded that activities to be financed by NATURA with PVO's have the potential to provide acceptable economic rates of return to the investments made.

3. Conclusion: Analysis of the debt-swap shows this transaction to provide budget relief to the Government of Panama. This benefit is over and above the long-term economic and other advantages to the country of the improved environmental management that the Project will promote. The Project is justified on economic grounds.

The experience worldwide with small landholder and community forestry projects shows that these activities have potential to be cost-effective and offer acceptable economic returns. This suggests that if similar activities are undertaken by PVO's in Panama, there is the potential for significant benefit.

## ANNEX H

### SOCIAL SOUNDNESS ANALYSIS

The social analysis was used to guide the design of Project components and to confirm the socio-cultural feasibility of the proposed activities. The information for this analysis was compiled through a review of existing social studies, field interviews and discussions with persons concerned with resettlement activities. The key socio-cultural issues are discussed below.

1. Public Support and Participation: Public attitudes on natural resource issues have changed in Panama over the last decade. There now exists a growing awareness that destruction of the forests and abuse of land will have severe consequences, and that "something should be done". Public support for the Project is expected to be high among the urban population. This ecological awareness must be extended to the rural areas where environmental damage occurs, and more appropriate land uses must be promoted among the local population. Success in the implementation of all conservation measures by the Project will depend on public support. It has been found that support can be generated when there is public participation in the planning of an activity so that the objectives and intended results are clear and acceptable. INRENARE has been successful in building support for the farm forestry and pasture improvement programs through demonstrations and trials.

2. Public Opinion and Conservation Law Enforcement: The protection of natural resources will require strengthening and enforcement of existing legislation. While INRENARE park and forest rangers will have the responsibility for enforcement of legislation, they will not be armed nor have power to arrest. These functions will be handled by local political authorities, alcaldes and corregidores, or the local detachments of the Public Force of Panama (PFP). INRENARE staff also have authority to impose fines and to order the confiscation of forest products or game taken without permit. There is legal appeal from these regulatory and administrative decisions.

Enforcement of the laws will be resented by campesinos denied entry to reserved areas and by those who have traditionally exploited public lands. INRENARE must vigorously and convincingly demonstrate the technical and legal basis for its programs. Public acceptance of conservation law enforcement will hinge on the perception that the law is equally applied to all, not just to the poor and powerless.

3. Relocation of Squatters: In the Canal Watershed there are estimated to be over 2,000 occupants in the Alto Chagres National Park, in some cases well established over a long period of

time. While it may be preferable to relocate all occupants from within the Park, this is financially unfeasible as there is limited public land to offer in compensation, and the costs of acquiring land for distribution would be excessive. These people are unlikely to accept public land on the frontiers as they are accustomed to the proximity to urban amenities, public services and occasional jobs. The only economic alternative at this time is to halt further entry into these critical areas, and to promote land use practices that are appropriate to the area.

In general, it has been found that lump sum cash payments are only effective in acquiring the land rights of absentee landowners that are not dependent on the land for their livelihood. For most squatters the opportunity to receive suitable land in compensation will be the more attractive incentive. Particularly this is the case since the value of their "improvements" (e.g. clearing) is small, and the cash payment is not sufficient for them to acquire other land or enter some other activity. Cash compensation programs must be carefully managed as they will tend to attract additional squatters who anticipate being bought out. Such a program must first insure that there is no new entry, and register and appraise the holdings of each existing occupant prior to the disbursement of funds.

The strategy of the Project is to: (1) halt further entrance by settlers into inappropriate lands or reserved areas; (2) complete a cadastre and census of the people in critical areas whose land use is destructive; (3) identify those vacant public lands that are to be appropriate for settlement; and (4) estimate the costs of relocation and/or compensation. The Project provides funding for the protection of reserved areas, the classification of land capability, and land tenure surveys and census of the existing occupants.

Government support of these actions is essential for them to be effective. This includes insuring that existing laws controlling land use and unauthorized settlement of public lands are enforced, that government use permits, services and credit programs are withdrawn from the inhabitants of those areas where destructive land use is taking place, and that sufficient funding or suitable land is available for a relocation or compensation program.

4. Institutional/Cultural Issues: Successful Project implementation will require the reassignment of INRENARE personnel to duty stations in the field where conservation activities will be implemented. The delegation of authority and responsibility to field unit managers is a change from the organization culture of Panamanian public service agencies. The new style of management has to be learned by the executives of the agency and accepted by the field staff. To be effective, delegation of authority requires

consistent policies and guidelines and the careful selection and training of field managers. Specific training in project management will be provided to the professional staff of INRENARE who will be assuming field assignments.

A recurring institutional problem in Panama is the reluctance of different agencies to collaborate in the implementation of projects and field activities. While INRENARE has signed a series of agreements and letters to cooperate with other agencies, the experience in this mode of work is just beginning. The interdisciplinary character of most natural resource management activities will require INRENARE to work with and be supported by other public and private agencies. A campaign to involve other agencies in planning and supporting the work of INRENARE will be implemented, and matched by INRENARE support in return. In particular, local authorities will be educated on the purposes and provisions of conservation laws and regulations.

5. Social Soundness Conclusions: Project design in general is judged to be appropriate to the socio-cultural context of Panama. The accomplishment of the overall purpose of the Project will introduce changes in the way people perceive and use natural resources. This will require convincing a wide strata of Panamanian society that the protection and proper management of land and water is a sound ecological and economic investment. These are cultural as well as technological changes.

## ANNEX I

### INSTITUTIONAL ANALYSIS

This institutional analysis examines: (1) the organizational situation of INRENARE; (2) NGO capabilities to implement activities within MARENA; (3) the establishment of NATURA; and (4) administrative arrangements required to effectively implement the Project.

#### 1. INRENARE:

a. Background: In 1985-86, at the time of the initial design of the MARENA Project, the government agency charged with the implementation of natural resource programs was the Ministry of Agricultural Development (MIDA). The normative and advisory functions in that sector were the responsibility of the then General Directorate of Renewable Natural Resources (RENARE).

RENARE's implementation authority was limited to specific projects that were externally funded, such as the USAID financed Watershed Management Project (1980-87), and the protection of the national parks and reserves. However, project implementation by MIDA and RENARE was ineffective, in part because RENARE personnel lacked the experience and the authority to manage project activities, and administrative and logistical support by MIDA was inadequate. In some cases project resources as well as funds appropriated for RENARE were diverted to other priority actions by MIDA. Often these actions were in direct conflict with conservation priorities, for example the expansion of cattle ranching into the forest reserves and national parks.

USAID supported the creation of a semi-autonomous agency divorced from MIDA prior to approving the MARENA project. This was accomplished with the passing of Panamanian Law 21, which created INRENARE, on December 16, 1986 by a unanimous vote of the legislature. However, the USAID Mission withdrew from Panama in 1987 prior to final negotiation of a Project Agreement. Actual organizational separation of INRENARE from MIDA, and its transfer to the portfolio of the Minister of MIPPE, did not take place until the Endara government took office in January 1990.

b. Current Situation: INRENARE will be unable to exercise the full role with which it is empowered by Law 21 for several years. The current legislation provides a broad range of responsibilities and authorities that are new to the organization. Since January, 1990, with the appointment of a new General Director, there have been many changes which are straining the absorptive capacity of the agency, particularly when combined with the new policies of the Endara government. For example, the separation from MIDA has begun, and INRENARE has already received over 300 employees who were previously on its various payrolls, but

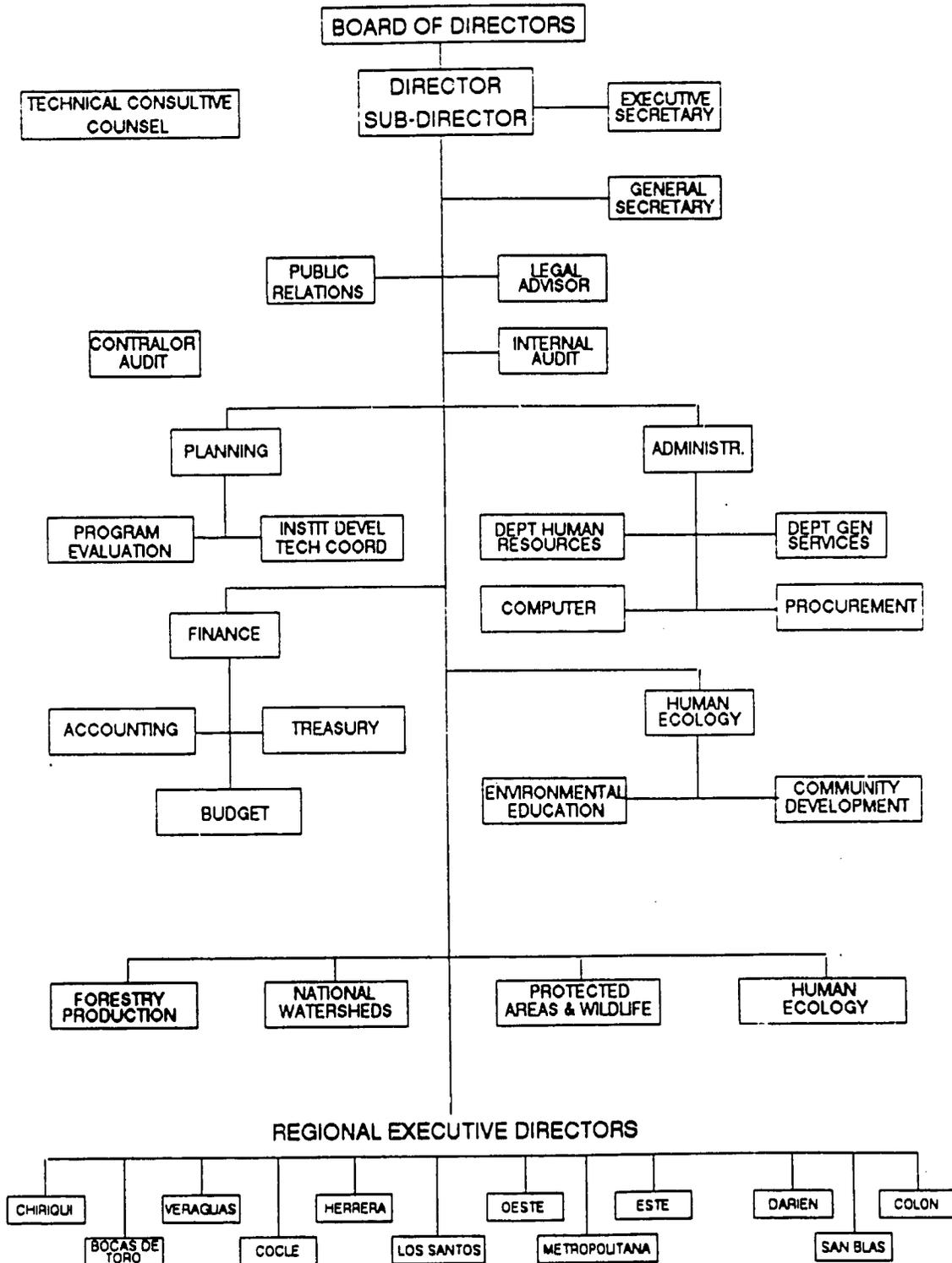
assigned in many cases to functions of MIDA unrelated to natural resource programs. In general, these personnel are not qualified by experience or training in the technical areas required by INRENARE.

As a semi-autonomous agency of government INRENARE is now responsible for generating its investment budget through receipts from concessions, fees, fines and grants or loans from technical cooperation projects. The administrative systems are not yet in place to track and collect these fees, nor has time permitted the development of assistance projects that would provide the resources for field activities. As a result, the organization is seriously under-financed, and field operations are virtually at a standstill. As INRENARE also lacks effective financial management, accounting, procurement and inventory control systems essential to effective future operations, the Project will address these issues through provision of technical assistance to INRENARE.

c. Changes Underway: The Director General has responded to the challenge of organizational development in several important ways. As an effective advocate of the need for a strong conservation policy, he has advanced the reformulation and strengthening of the Tropical Forest Action Plan, and has brought it to the attention of international donors. While the Plan itself is general in nature, it provides the first iteration of policy guidelines to focus activities. The Ecological Agenda (Agenda Ecológica) that accompanied the presentation of the 1990 Program Budget, set more immediate priorities and a focus for activities. INRENARE has been fortunate to have an experienced manager from the private sector named to the position of Director of Administration and Finances. Unlike the situation in 1987, there is an organizational manual, an effort to develop a personnel policy, a program to relocate headquarters staff to positions in the field, and the beginnings of a program-budget system introduced. The organizational development program of the Director General includes: (1) the installation of management and administrative systems; (2) improvement of the technical capacity of personnel; and (3) the re-equipment of field staff to increase their effectiveness.

d. Organizational Issues: In the planning for increased effectiveness of INRENARE, there are three organizational issues to be addressed. First is the issue of span of control. The Director General has over 17 different units reporting directly to him (See Organizational Chart below). A sound organizational principle is that not more than five units report to a manager, and less if the functions are complex and require a high degree of coordination. Mid-level managers must be named, either on a functional or a geographic basis, and decision making authority delegated to them. However, effective delegation requires that comprehensive and clear policy guidelines be established by

# NATIONAL INSTITUTE FOR RENEWABLE NATURAL RESOURCES



INRENARE so that decision making is consistent throughout the organization. The organizational development plan will address these issues.

In order to establish a permanent physical presence in the 11 national parks and 3 reserves included in this Project, INRENARE will require a total of 364 employees assigned to those locations. A total of 84 employees are currently assigned to the parks system and the remaining 280 positions will be filled through reassignments within INRENARE and new hires. Table III-1 contains an estimate of the personnel required by INRENARE in each national park and reserve.

A second management principle is the concentration of effort. INRENARE's mandate is very broad, and both human and material resources will be inadequate to be effective in every facet of the organization's responsibility for the immediate future. The Institute should avoid previous experiences in which scarce resources were distributed over too many activities with the result that few functions were adequately performed. The Director General has begun to make decisions on those priority activities that must be addressed by the agency, particularly those that are the sole responsibility of INRENARE. The Project will support these decisions, concentrate activities in three key geographical areas, and emphasize the unique functions of INRENARE--the regulatory and the management of public lands in the national parks and reserves. The social forestry and improved land use actions will be implemented by local NGOs and other institutions in close coordination with INRENARE.

A final issue is for INRENARE to take the lead in mobilizing and focusing the actions of government and the private sector on priority conservation issues. As resources are limited both within government and in the economy in general, INRENARE can best fulfill its responsibilities by improving its planning, coordination and supervision role. The Board of Directors of INRENARE, and the Technical Consultative Committee, are ideal vehicles for advancing this program. The Director General is particularly effective as an advocate of conservation issues, and has the opportunity to use these entities and other commissions to gain consensus and support for the conservation program of INRENARE.

2. NGO Implementation Capabilities: The growth in the capability of private conservation organizations in Panama is a significant development since the original MARENA Project design. Two of these organizations, the Fundación PA.NA.MA (Fundación de Parques Nacionales y Medio Ambiente) and ANCON (Asociación para la Conservación de la Naturaleza), are the more significant. Both have supported INRENARE activities in the protected areas through environmental education programs, research, and the provision of equipment, training and financial assistance.

a. Fundación PA.NA.MA: The Fundación is a federation of some 26 environmental groups that differ widely in size and degree of organization. For example the Panama Audobon Society is a group which has over 600 dues paying members, a defined program, and a long history of activities. Other groups, however, have fewer than a dozen members, are not legally organized, and have a limited scope of interest and activities. World Wildlife Fund of the U.S. received a \$1 million grant from USAID/Panama (Natural Resources Education Project, No. 525-0257) in 1985 to assist with the start-up of PA.NA.MA as an organization. WWF assigned a staff member to advise on the organizational development of the Fundación, and provided some matching funds. Most of the original grant was used to fund the recurrent costs of an office and staff, and an environmental education program of limited scope was initiated. The Fundación, perhaps due to the diversity of its constituent groups, was unable to mount an effective program, or to find significant sources of funding to provide for future self-sufficiency. With the withdrawal of USAID from Panama in 1987, activities and staff were greatly reduced, although WWF continued to provide support. Individual member groups of the Fundación will be eligible to carry out environmental activities financed by NATURA.

b. ANCON: ANCON was founded in 1985 and its mission is the conservation of the natural resources and biological diversity of Panama. Initial organizational support was provided by The Nature Conservancy, which advised on fund raising, membership development, parks protection, and the organization of a Conservation Data Center. The success of the leadership of ANCON, and the support of the Board of Directors, are evidenced by the funds that ANCON has been able to attract over the last four years from the private sector, World Wildlife Fund, the Smithsonian, and charitable foundations such as MacArthur, Noyes, W. Alton Jones, as well as The Nature Conservancy. ANCON was able to survive the economic and political crisis of the last three years, and to continue to provide funding to parks protection activities in the Darien, the Canal Watershed (Chagres & Soberania) and Bocas del Toro. It is significant that ANCON signs annual cooperative agreements with INRENARE for the implementation of coordinated field activities, and is one of the principal collaborators with that agency.

ANCON has all the ingredients necessary for a successful NGO: a focused mission, and strong and active Board of Directors, a full-time professional staff, effective projects that advance its mission, and a diverse and consistent source of funding. A total of 1,672 individuals and corporate donors contributed to the "Amigos de ANCON" campaign in 1990. Recognition of the strength and potential of ANCON was the grant of \$270,000 of USAID/Panama, awarded in March 1990, for rural employment generation and national parks protection.

c. ANARAP: In 1986, in anticipation of the MARENA Project, the staff of USAID assisted private nurserymen, forest industry companies, and individuals who were planting trees to form ANARAP. The impetus for this organization was the experience in the United States, Sweden, Colombia, Chile and other countries which demonstrated the effectiveness of associations formed by private landowners in promoting the planting of trees. A precedent for this type of association exists in Panama in the regional agricultural organizations such as the rice producers associations in Chiriquí and Coclé.

ANARAP is legally constituted as a educational not-for-profit association, and was formed to: (1) promote investments in reforestation; (2) disseminate information on seed sources, planting, silvicultural practices, and the marketing of wood products; and (3) represent landowner interests in the formulation of national policies, laws and incentives for tree planting investments. The association does not have an office or a paid staff, but has been active in promoting the planting of trees. It has also financed environmental awareness programs of INRENARE, and issued statements on matters of public policy that have received good press coverage. Though a voluntary association, over 60 people have attended the monthly meetings of the association at one time or another, and support remained strong during the economic difficulties of the past three years. The strength of the PVO is a core of about 20 persons who have dedicated time to keeping ANARAP alive, and have continued to plant trees on their lands over the last few years.

A new Board of Directors was recently elected to head the association for the following year, and a work plan has been developed. This plan includes working to clarify the policy issues on government restrictions on harvesting planted trees, drafting with INRENARE an effective law to promote private reforestation efforts and to lobby for fiscal incentives to tree planting as the economy improves.

### 3. Establishment of NATURA:

a. Fundación Natura: A new private conservation foundation was formed in Panama for the express purpose of managing a perpetual trust fund dedicated to financing conservation activities by the public and private sector. The not-for-profit Fundación para la Conservación de la Naturaleza (NATURA), (Foundation for the Conservation of Nature), is an initiative of the private sector led by ANCON with the support of The Nature Conservancy and other national and international NGOs.

The objective of NATURA is to finance natural resource conservation and other environmental activities in the following areas:

Conservation and protection of the natural resources of the Panama Canal Watershed;

Identification, protection and management of national parks, wildlife refuges and other protected areas of the Republic of Panama;

Protection and management of the principle river basins, with special attention to those watersheds that supply energy to IRHE and potable water to the principal cities of the country;

Conservation of biological diversity of Panama, with emphasis on the protection of rare endemic species that are threatened or in danger of extinction;

Inventory of flora and fauna and applied scientific research on the conservation of renewable natural resources of the country; and

Implementation of programs of environmental awareness, with emphasis on communities and areas close to national parks and protected natural areas of the country.

b. Trust Fund Capitalization: The initial capital of the trust fund managed by NATURA will be provided by a "Debt-for-Nature" swap designed for Panama. ANCON, with the support of The Nature Conservancy, has proposed a debt-for-nature swap of commercial debt with the Government assisted by USAID. The concept has been strongly supported by President Endara, and by Vice Presidents Arias Calderon and Ford, as well as by the Controller General and various economic advisors in Panama. The proposed terms of the exchange are the following: (1) the Government will convert sovereign commercial debt into a new issue of Conservation Bonds with a face value of no less than \$50 million; (2) The Conservation Bonds will have a 30 year term from date of issuance; and (3) pay interest every six months at an annual rate of 5% generating \$2.5 million in income for NATURA each year. The bonds would be donated to the government of Panama at the end of the 30 year term.

NATURA will seek donations from public and private sources to capitalize the trust fund. Donations may be direct gifts of Panamanian commercial debt, cash for the purchase of debt, or other assets which the Foundation would hold or convert to cash. Income from a donation may be unrestricted as to use, or reserved to finance a specific project or activity by the donor--for example, protection of the Darien National Park, social forestry with communities in the Canal Watershed, Proyecto PEMASKY, purchase

of property rights in the Chagres National Park, etc. Specific accounts will be established within the trust fund in accordance with the instructions of the donor. The income from these accounts will be segregated, managed and accounted for separately, and used solely for the purposes intended.

c. Conservation Foundation Actions: NATURA will not be an implementing agency, and all activities financed by the trust fund will be executed by INRENARE, qualified NGOs, and other institutions in accordance with work plans and budgets approved by the Board of Trustees. The procedures for financing conservation actions will be the following:

- (1) NATURA will announce the amounts of funding available for disbursement based on projections of income for the various accounts that it holds in trust.
- (2) INRENARE and other organizations will present work plans and budgets for consideration by the Board of Trustees.
- (3) Proposals will be subject to technical review by a Technical Committee made up of qualified third parties from the community, and the approval of INRENARE where appropriate.
- (4) The Technical Committee will recommend approval of a proposal based on: conformity with the source of funds, technical merits and priority, and the implementation capability and past performance of the recipient.
- (5) Upon approval by the Board, the financial agent of the Trust will be authorized to make disbursements.

d. Conservation Foundation Staff: NATURA will have a limited staff consisting of an executive director, a financial manager, 3 environmental technicians, 2 secretaries and a driver/messenger. The Board of Trustees will be responsible for selecting the executive director. The executive director will hire the remainder of the NATURA staff with the Board of Trustees providing final approval for all personnel.

The Project will provide funding for support of NATURA during the initial six months. This will include funding for operational and personnel costs, as well as for program funds for local NGO environmental activities.

4. Project Administration: As an autonomous agency INRENARE will develop its own administrative and accounting systems and

procedures suited to its decentralized field operations with guidelines established by the Contoller General for decentralized institutions. Law 21 gives authority to the Director General of INRENARE for personnel appointments, financial management, and contracting for services or purchasing for up to B/.50,000 in accordance with government procedures. The Board of Directors of INRENARE can authorize contracting or procurement in any amount subject to the same regulations. This authority will streamline the administration of the agency and eliminate many of the procedural delays that impeded the implementation of previous projects.

Resuelto N° 119Panamá, 15 de Marzo

## PERSONERIA JURIDICA

Mediante apoderado legal, FERNANDO ELETA ALMARAN, varón, panameño, mayor de edad, casado, con cédula de identidad personal N° B-30-79 y domicilio en la ciudad de Panamá, en su condición de Representante Legal de la FUNDACION PARA LA CONSERVACION DE LOS RECURSOS NATURALES, NATURA, solicita al Ministerio de Gobierno y Justicia, le confiera a la misma PERSONERIA JURIDICA.

Para fundamentar su pretensión, ha presentado los siguientes documentos:

- a) Poder y solicitud;
- b) Acta de Fundación;
- c) Acta de aprobación de Estatutos;
- d) Estatutos aprobados;
- e) Lista de Directivos.

Examinada la documentación presentada, ha quedado establecido que la entidad no persigue fines lucrativos, sino que sus objetivos, entre otros, son los de conservar y proteger los recursos naturales de la Cuenca del Canal de Panamá; y la identificación, protección y manejo de los parques nacionales, refugios de vida silvestre y las áreas protegidas de la República de Panamá.

Como estos propósitos no pugnan con la Constitución Política de la República de Panamá, ni con las disposiciones legales vigentes que rigen la materia;

EL MINISTRO DE GOBIERNO Y JUSTICIA  
en uso de sus facultades legales,

R E S U E L V E :



Aprobar, los Estatutos de la FUNDACION PARA LA CONSERVACION DE LOS RECURSOS NATURALES, NATURA, y reconocer la PERSONERIA JURIDICA, conforme lo establecido en los articulos de la Constitución Política; 64 y 69 del Código Civil, y la Ley 33 de 8 de noviembre de 1964.

Toda modificación posterior de estos Estatutos debe ser sometida a la aprobación previa del Ministerio de Gobierno y Justicia.

La PERSONERIA JURIDICA concedida no ampara actividades distintas a las indicadas en los Estatutos aprobados.

Este Decreto surtirá sus efectos legales a partir de su inscripción en el Registro Público.

COMUNIQUESE Y PUBLIQUESE.

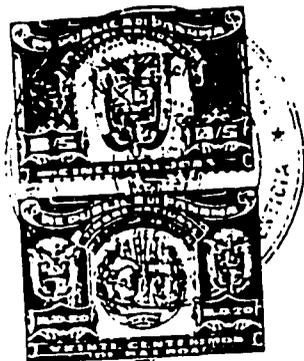
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Firmado { DR. RICARDO ARIAS CALDERON

RICARDO ARIAS CALDERON  
Ministro de Gobierno

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Firmado | Lucha Ana Furgado Mancera  
ANA BURGOA DE MANTOVANI  
Viceministra de Gobierno  
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DIRECCION DE ASESORIA LEGAL



64/66.

ACTA DE FUNDACION DE LA FUNDACION  
PARA LA CONSERVACION DE LOS  
RECURSOS NATURALES, NATURA

En la Ciudad de Panamá, siendo las cinco de la tarde (5:00 p.m.) del 13 de septiembre de 1990, se reunieron las siguientes personas con el objeto de constituir una asociación sin fines de lucro denominada FUNDACION PARA LA CONSERVACION DE LOS RECURSOS NATURALES, NATURA; FERNANDO ELETA ALMARAN, JOSE MIGUEL ALEMAN e IRA RUBINOFF.

Luego de un intercambio de ideas, se aprobó la fundación de la asociación arriba mencionada, con el objeto de impulsar y llevar a cabo planes y programas diversos para la protección del patrimonio biológico y los recursos naturales del país.

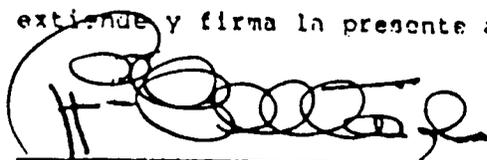
Inmediatamente se procedió a la elección interior de la Junta de Síndicos, la cual quedó integrada así:

FERNANDO ELETA ALMARAN  
JOSE MIGUEL ALEMAN  
IRA RUBINOFF

Acto seguido, se eligieron los siguientes dignatarios:

FERNANDO ELETA ALMARAN---PRESIDENTE  
IRA RUBINOFF---SECRETARIO-TESORERO

No habiendo nada más que tratar, se levantó la sesión, siendo las seis de la tarde (6:00 p.m.) y, para constancia, se extiende y firma la presente acta, hoy 13 de septiembre de 1990.

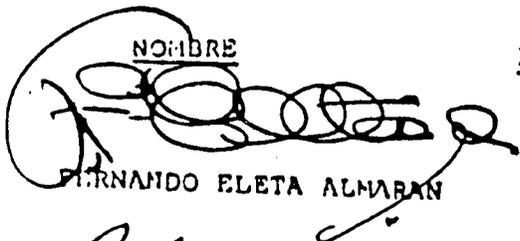
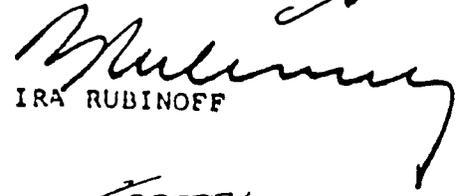


FERNANDO ELETA ALMARAN  
PRESIDENTE



IRA RUBINOFF  
SECRETARIO

LISTA DE SINDICOS Y DIGNATARIOS DE LA  
FUNDACION PARA LA CONSERVACION  
DE LOS RECURSOS NATURALES, NATURA

<u>NOMBRE</u>	<u>FIRMA</u>	<u>CARGO</u>	<u>CEDULA</u>
FERNANDO Eleta Almaran		PRESIDENTE	8-30-79
IRA RUBINOFF		SECRETARIO-TESORERO	C.M-No. 041/90
JOSÉ MIGUEL ALEMAN			8-209-1190

LISTA DE SINDICOS DE LA  
FUNDACION PARA LA CONSERVACION  
DE LOS RECURSOS NATURALES, NATURA

<u>NOMBRE</u>	<u>CEJULA</u>	<u>ORGANISMO</u>	<u>CARGO</u>	<u>FIRMA</u>
GUILLELMO FORD B.	8-81-623	MIPFE	Principal	<i>[Signature]</i>
STANLEY HECKADON M.	4-72-763	INFESTURE	Suplente	<i>[Signature]</i>
LAUREANO CRESTAR DURAN PE-0262		CARITAS	Principal	<i>[Signature]</i>
MARTIR MORALES	4-138-1066	CARITAS	Suplente	<i>[Signature]</i>
IRA RUBINOFF	800149916	S.T.R.I.	Principal	<i>[Signature]</i>
ELENA DE LOMBARDO	8-12-860	S.T.R.I.	Suplente	<i>[Signature]</i>
FERNANDO ELETA A.	8-30-79	ANCON	Principal	<i>[Signature]</i>
JUAN C. NAVARRO O.	8-220-2725	ANCON	Suplente	<i>[Signature]</i>
BRIAN HOUSEAL	Z-53664538	TNC	Principal	<i>[Signature]</i>
ALAN C. RANDALL	Z-4507908	TNC	Suplente	<i>[Signature]</i>
LUIS VARELA	6-14-683	ANDE	Principal	<i>[Signature]</i>
LOMINADOR KAYSER BAZAN	3-34-115	ANDE	Suplente	<i>[Signature]</i>
LORENZO HINCAPIE	8-173-773	ANARAP	Principal	<i>[Signature]</i>
CESAR ROJAS PARDINI	2-72-205	ANARAP	Suplente	<i>[Signature]</i>

*[Signature]*  
FERNANDO ELETA A.  
Presidente

*[Signature]*  
IRA RUBINOFF  
Secretario-Tesorerero

ADAM HERNANDEZ CHEN, Notario Publico Duodécimo del Circuito de Panamá, con Cedula de identidad personal No. 8-118-429.

CERTIFICA:

Que: (los) firmat(s) que aparece(n) en el presente documento ha(n) sido reconocido(s) por el (los) firmant(es) y es (son) por consiguiente dich(a)s firmat(s) es (son) auténtic(a)s.

Panamá, FEB. 28 1991



*[Signature]*  
8-74787  
Lic. ADAM HERNANDEZ CHEN  
Notario Publico Duodécimo



REPUBLICA DE PANAMA  
Ministerio de Hacienda y Tesoro



PAPEL NOTARIAL

TIMBRE NACIONAL  
B 400 CUATRO BALBOAS B 400



LEY No. 34  
DECRETO (1991) No. 10

ESCRITURA PUBLICA NUMERO MIL OCHOCIENTOS SESENTA Y SIETE-----

1	----- (1,867) -----
2	POR LA CUAL se protocoliza los documentos referentes a la
3	Personería Jurídica de FUNDACION PARA LA CONSERVACION DE LOS
4	RECURSOS NATURALES. NATURA.-----
5	Panamá, 22 de marzo de 1991.
6	-----
7	En la Ciudad de Panamá, Capital de la República y Cabecera del
8	Circuito Notarial del mismo nombre a los veintidos (22) días
9	del mes de marzo de mil novecientos noventa y uno (1991), ante
10	mí, NOEMI MORENO ALBA, Notario Público Décimo del Circuito de
11	Panamá, portadora de la cédula de identidad personal número
12	siete-treinta y siete-setenta y ocho (7-37-78), compareció
13	personalmente el señor JOSE MIGUEL ALEMAN HEALY, varón,
14	panameño, mayor de edad, casado, vecino de esta ciudad, con
15	cédula de identidad personal número ocho-doscientos nueve-mil
16	cientos noventa (8-209-1190), a quien doy fe de que conozco, en
17	nombre de ARIAS, ALEMAN & MORA, firma de abogados apoderada de
18	FUNDACION PARA LA CONSERVACION DE LOS RECURSOS NATURALES,
19	NATURA, y manifestó que me entregaba para su protocolización en
20	esta Escritura Pública, y al efecto protocolizo, copia
21	auténtica de los documentos referentes a la Personería
22	Jurídica de FUNDACION PARA LA CONSERVACION DE LOS RECURSOS
23	NATURALES. NATURA.-----
24	El texto de los documentos que se protocolizan se transcriben
25	en la copia de este instrumento.-----
26	-----
27	-----
28	El suscrito Notario hace constar que ha extendido la presente
29	Escritura Pública, con base a minuta debidamente refrendada por
30	la firma de abogados ARIAS, ALEMAN & MORA, en cumplimiento de

E-90- 324188

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1 lo que establecen los articulos cuarto (4to.), décimo cuarto  
 2 (14o.) y décimo sexto (16o.) de la Ley novena (9a.) de abril de  
 3 mil novecientos ochenta y cuatro (1984).....  
 4 .....  
 5 Advertí que copia de esta Escritura Pública debe ser inscrita en  
 6 el Registro Público, y leída como le fue a los comparecientes en  
 7 presencia de los testigos instrumentales MARTHA LINETH GONZALEZ,  
 8 con cédula de identidad personal número ocho-cuatrocientos  
 9 setenta y dos-seiscientos veintiocho (8-472-628) y MARIA ISABEL  
 10 AGUILAR, con cédula de identidad personal número ocho-doscientos  
 11 treinta y cinco-dos mil setecientos sesenta y cinco (8-235-  
 12 2765), mayores de edad, vecinos de esta ciudad, personas a  
 13 quienes conozco y son hábiles para el cargo, la encontraron  
 14 conforme, le impartieron su aprobación y la firman todos para  
 15 constancia, por ante mí, el Notario que doy fé.....  
 16 Esta escritura en el protocolo del presente año lleva el número  
 17 de orden MIL OCHOCIENTOS SESENTA Y SIETE-----(1.867)-----  
 18 (FIRMADOS) JOSE MIGUEL ALEMAN HEALY, MARTHA LINETH GONZALEZ,  
 19 MARIA ISABEL AGUILAR, NOEMI MORENO ALBA, Notario Público Décimo  
 20 del Circuito Notarial de Panamá.....  
 21 .....  
 22 SELLO-----REPUBLICA DE PANAMA-----MINISTERIO DE GOBIERNO Y  
 23 JUSTICIA-----Departamento Nacional Jurídico-----Dirección de  
 24 Asesoría Legal -----  
 25 FUNDACION PARA LA CONSERVACION-----Solicitud de-----  
 26 DE LOS RECURSOS NATURALES, NATURA-----Personería Jurídica---  
 27 SEÑOR MINISTRO DE GOBIERNO Y JUSTICIA:-----  
 28 Yo, FERNANDO ELETA ALMARAN, varón, mayor de edad, casado,  
 29 panameño, portadora de la cédula de identidad personal número  
 30 8-30-79, en mi condición de Presidente Interino de la FUNDACION

Contraloría General . D E C

REPUBLICA DE PANAMA  
Ministerio de Hacienda y Tesoro

- 2 -

PAPEL NOTARIAL

TIMBRE NACIONAL  
B 4 00 CUATRO BALBOAS B: 4 00

LEY No 38 de 1964

DECRETO EJECUTIVO No 28000 del 1964

FUNDACION PARA LA CONSERVACION DE LOS RECURSOS NATURALES. NATURA. 85571a-

1 ción sin fines de lucro. en proceso de formacion. comparezco  
2 respetuosamente ante este despacho a fin de otorgar Poder  
3 Especial a la firma ARIAS, ALEMAN Y MORA, en calidad de  
4 Apoderados Principales y en la Lic. Marcela Beloso, mujer,  
5 mayor de edad, casada, panameña, portadora de la cédula de  
6 identidad personal No. N-17-924 en calidad de Apoderada  
7 Sustituta, ambos abogados en ejercicio, con oficinas ubicadas  
8 en Calle 50 y Ricardo Arias, primer alto del edificio Tower  
9 Plaza, de esta ciudad de Panamá, lugar donde reciben notifi-  
10 caciones personales, con el propósito de que tramiten la  
11 personería jurídica de la asociación que represento.....  
12 Los Apoderados aquí designados quedan expresamente facultados  
13 para recibir, sustituir, desistir, reasumir y transigir, así  
14 como para interponer los recursos legales que estimen conve-  
15 nientes.....Panamá, 23 de octubre de 1990.....  
16 .....FUNDACION PARA LA CONSERVACION.....  
17 .....DE LOS RECURSOS NATURALES, NATURA.....  
18 (Firmado) Ilegible.....Fernando Eleta Almarán.....  
19 .....Cedula No. 8-30-79.....

20 SEÑOR MINISTRO DE GOBIERNO Y JUSTICIA:.....  
21 Nosotros, ARIAS, ALEMAN & MORA, abogados en ejercicio, con  
22 oficinas en el primer alto del Edificio Tower Plaza, ubicado en  
23 la Calle 50 y Ricardo Arias de esta ciudad, por este medio  
24 comparecemos con nuestro acostumbrado respeto ante usted en  
25 virtud del poder que antecede a solicitar que se sirva  
26 reconocer la personalidad jurídica a dicha asociación, de  
27 conformidad con la ley.....  
28 Basamos esta solicitud en los siguientes hechos:.....  
29 PRIMERO: La FUNDACION PARA LA CONSERVACION DE LOS RECURSOS  
30

E-90- 321189

117

1      NATURALES. NATURA. es una asociación sin fines de lucro que  
2      tiene por objeto fomentar la protección del patrimonio  
3      biológico y los recursos naturales de la República de Panamá.---

4      SEGUNDO: Dicha asociación fue fundada el 13 de septiembre de  
5      1990.-----

6      TERCERO: Los Estatutos de dicha asociación fueron aprobados el  
7      día 14 de septiembre de 1990.-----

8      Se acompañan a esta solicitud los siguientes documentos:-----

9      1. Acta de fundación de la asociación y de nombramiento  
10     interino de la Junta de Síndicos.-----

11     2. Acta de aprobación de Estatutos de la asociación.-----

12     3. Estatutos de la asociación.-----

13     4. Lista de síndicos y dignatarios interinos de la asociación.-----

14     DERECHO: Artículo 64, ordinal 4 y artículo 69 del código civil.  
15     -----Panamá, 23 de octubre de 1990.-----

16     -----ARIAS, ALEMAN Y MORA-----

17     (Firmado) Ilegible-----José Miguel Alemán-----

18     -----Cédula no. 8-209-1190-----

19     ES FIEL COPIA DE SU ORIGINAL----- (Fdo) Ilegible----- DIRECCION  
20     DE ASESORIA LEGAL-----

21     -----

22     SELLO-----REPUBLICA DE PANAMA-----MINISTERIO DE GOBIERNO Y  
23     JUSTICIA-----Departamento Nacional Jurídico-----Dirección de  
24     Asesoría Legal -----

25     -----ACTA DE UNA REUNION DE LA JUNTA DE SINDICOS-----

26     -----DE LA FUNDACION PARA LA CONSERVACION-----

27     -----DE LOS RECURSOS NATURALES, NATURA-----

28     -----ACTA DE APROBACION-----

29     En la Ciudad de Panamá, siendo las cinco y treinta de la tarde  
30     (5:30 p.m.) del 14 de septiembre de 1990, se llevó a cabo una

TABLE F-2

## PARKS CONSTRUCTION REQUIREMENTS

NATIONAL PARKS AND RESERVES:	SOBERANIA PARK		CHAGRES PARK		DARIEN PARK		AMISTAD PARK		BASTIMENTO PARK		PALO SECO RESERVE		BARU VOLCANO		TOTAL NO. UNITS	
	PRES	NEW	PRES	NEW	PRES	NEW	PRES	NEW	PRES	NEW	PRES	NEW	PRES	NEW	PRES	NEW
CONSTRUCTION																
Administration Office		3	3	1		4	1	1		1		1	1	1	5	12
Back-country Stations		2		1		4		2		2		2		1	0	14
Maintenance Building		3		4		4	1	2		1		1		2	1	17
Staff Residence				4		4		6		1		1		1	0	17
Ecotourism Facilities		3		3		1		2		2				2	0	13
Guard Shelter		3	2	3		6	1	4		2				3	3	21
Entrance Booth		3		3										3	0	9
Fences, Gates, Signs		4		3										3	0	10
Boundary Demarcation (km)	50	25	96	150	75	200	75	150	20	10		10		60	316	605
Trail Demarcation (km)	1	50	1	5	1	20		5		2			1	5	4	87
	CAMPANA PARK		PORTOBELO PARK		EL COPE PARK		CERRO HOYA PARK		SARIGUA PARK		TABOGA RESERVE		IGUANA RESERVE		TOTAL NO. UNITS	
CONSTRUCTION	PRES	NEW	PRES	NEW	PRES	NEW	PRES	NEW	PRES	NEW	PRES	NEW	PRES	NEW	PRES	NEW
Administration Office		1		1		3		2		1		1			0	9
Back-country Stations		1		1		1									0	3
Maintenance Building		1		1		3		2		1					0	8
Staff Residence		1		1		3		2		1		1		1	0	10
Ecotourism Facilities		2		2		2				1		1		1	0	9
Guard Shelter		3		2		3		2		1		1			0	12
Entrance Booth		2								1					0	3
Fences, Gates, Signs		2								1					0	3
Boundary Demarcation (km)		38		40		125		25		10		5			0	243
Trail Demarcation (km)	1	5		5		5		3		2		2		1	1	23

REPUBLICA DE PANAMA  
Ministerio de Hacienda y Tesoro

- 3 -



PAPEL NOTARIAL

TIMBRE NACIONAL  
B 400 CUATRO BALBOAS B 400



reunión de la asociación en la que estuvieron presentes las  
siguientes personas: FERNANDC ELETA ALMARAN. JOSE MIGUEL

ALEMAN y IRA RUBINOFF

Como primer y único punto se procedió al análisis del proyecto  
de estatutos para la asociación, el cual, luego de ser amplia-  
mente discutido, fue aprobado por unanimidad.

No habiendo más nada que tratar, se levantó la sesión, siendo  
las siete de la noche (7:00 p.m.) y, para constancia, se  
extiende y firma la presente acta, hoy 14 de septiembre de 1990.

(Firmado) Ilegible -----FERNANDO ELETA ALMARAN-----PRESIDENTE---

(Firmado) Ilegible -----IRA RUBINOFF -----SECRETARIO---

ES FIEL COPIA DE SU ORIGINAL----- (Fdo) Ilegible----- DIRECCION  
DE ASESORIA LEGAL-----

SELO-----REPUBLICA DE PANAMA-----MINISTERIO DE GOBIERNO Y  
JUSTICIA-----Departamento Nacional Jurídico-----Dirección de  
Asesoría Legal -----

-----LISTA DE SINDICOS DE LA-----

-----FUNDACION PARA LA CONSERVACION-----

-----DE LOS RECURSOS NATURALES. NATURA-----

NOMBRE-----CEDULA-----ORGANISMO-----CARGO----- FIRMA---

GUILLERMO FORD B. -----8-81-623---MIPPE-----Principal-Ilegible

STANLEY HECKADON M. -----4-72-763---INRENARE-----Suplente--Ilegible

LAUREANO CRESTAR DURAN-PE-0262---CARITAS-----Principal-Ilegible

MARTIR MORALES-----4-138-1066-CARITAS-----Suplente--Ilegible

IRA RUBINOFF-----800149916--S.T.R.I.-----Principal-Ilegible

ELENA DE LOMBARDO-----8-12-860---S.T.R.I.-----Suplente--Ilegible

FERNANDO ELETA A. -----8-30-79---ANCON-----Principal-Ilegible

JUAN C. NAVARRO Q. -----8-220-2725-ANCON-----Suplente--Ilegible

BRIAN HOUSEAL-----Z-53664538-TNC-----Principal-Ilegible

E-90- 324100

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1 ALAN C. RANDALL -----Z-4507908--TNC-----Suplente--Ilegible  
 2 LUIS VARELA -----6-14-683---ANDE-----Principal-Ilegible  
 3 DOMINADOR KAYSER BAZAN-3-34-115---ANDE-----Suplente--Ilegible  
 4 LORENZO HINCAPIE-----8-173-773--ANARAP-----Principal-Ilegible  
 5 CESAR ROJAS PARDINI----2-72-205---ANARAP-----Suplente--Ilegible  
 6 (Firmado) Ilegible -----FERNANDO ELETA A.----Presidente-----  
 7 (Firmado) Ilegible -----IRA RUBINOFF -----Secretario-Tesorero  
 8 SELLO---ADAN HERNANDEZ CHEN, Notario Público Duodécimo del  
 9 Circuito de Panamá, con Cédula de identidad personal  
 10 No. 8-118-429.-----CERTIFICA:-----  
 11 Que: La(s) firma(s) que aparece(n) en el presente documento  
 12 ha(n) sido reconocida(s) por el (los) firmante(s) como suya(s)  
 13 por consiguiente dicha(s) firma(s) es (son) auténtica(s).-----  
 14 Panamá... FEB.28 1991 Dos (s) Firmas Ilegibles-----  
 15 Lic. ADAN HERNANDEZ CHEN - Notario Público Duodécimo-----  
 16 ES FIEL COPIA DE SU ORIGINAL-----DIRECCION DE ASESORIA LEGAL  
 17 Timbre Nacional por B/ 0.20-----SELLO-----REPUBLICA DE PANAMA -  
 18 NOTARIA DUODECIMA DEL CIRCUITO-----  
 19 -----  
 20 SELLO-----REPUBLICA DE PANAMA-----MINISTERIO DE GOBIERNO Y  
 21 JUSTICIA-----Departamento Nacional Jurídico-----Dirección de  
 22 Asesoría Legal -----  
 23 -----LISTA DE FUNDADORES Y DIGNATARIOS DE LA-----  
 24 -----FUNDACION PARA LA CONSERVACION-----  
 25 -----DE LOS RECURSOS NATURALES, NATURA-----  
 26 NOMBRE-----FIRMA-----CARGO-----CEDULA-----  
 27 FERNANDO ELETA ALMARAN--Ilegible-PRESIDENTE-----8-30-79---  
 28 IRA RUBINOFF-----Ilegible-SECRETARIO-TESORERO--E-8-44-783  
 29 JOSE MIGUEL ALEMAN-----Ilegible-----8-209-1190  
 30 ES FIEL COPIA DE SU ORIGINAL----- (Fdo) Ilegible----- DIRECCION

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DE ASESORIA LEGAL-----

1  
2  
3 SELLO-----REPUBLICA DE PANAMA-----MINISTERIO DE GOBIERNO Y  
4 JUSTICIA-----Departamento Nacional Juridico-----Dirección de  
5 Asesoría Legal -----  
6  
7 SELLO-----REPUBLICA DE PANAMA-----MINISTERIO DE GOBIERNO Y  
8 JUSTICIA-----Departamento Nacional Juridico-----Dirección de  
9 Asesoría Legal -----  
10 -----FUNDACION PARA LA CONSERVACION DE-----  
11 -----LOS RECURSOS NATURALES DE-----  
12 -----PANAMA. NATURA-----  
13 -----ESTATUTOS-----  
14 -----CAPITULO I-----  
15 -----NOMBRE, DOMICILIO, NATURALEZA Y DURACION:-----  
16 ARTICULO 1: En reconocimiento a la importancia del buen manejo  
17 y la protección del patrimonio biológico y los recursos  
18 naturales del país para el futuro crecimiento y desarrollo  
19 social y económico de la República de Panamá, se organiza una  
20 Asociación sin fines de lucro, de tipo fundacional, que se  
21 denominará FUNDACION PARA LA CONSERVACION DE LOS RECURSOS  
22 NATURALES DE PANAMA. NATURA, en adelante NATURA, para llevar a  
23 cabo cualesquiera de los objetivos expresados en el artículo 3.  
24 con cargo a los bienes, recursos o valores que se le provean.---  
25 ARTICULO 2: La sede y domicilio legal principal de la  
26 Fundación estará en la ciudad de Panamá, República de Panamá.  
27 Sin embargo, la Junta de Síndicos podrá ordenar el estableci-  
28 miento de oficinas en cualquier otro sitio dentro o fuera de la  
29 República de Panamá.-----  
30 ARTICULO 3: La Fundación utilizará la totalidad de los

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1 recursos que se le provean para la realización de las  
2 siguientes actividades:-----  
3 a. La conservación y protección de los recursos naturales de  
4 la cuenca del Canal de Panamá.----- b. La identificación,  
5 protección y manejo de los parques nacionales, refugios de vida  
6 silvestre y las áreas protegidas de la República de Panamá.-----  
7 c. La protección y manejo de las principales cuencas  
8 hidrográficas del país, con especial atención a las cuencas de  
9 las centrales hidroeléctricas del IRHE y a las cuencas que  
10 proveen de agua potable a las distintas ciudades y regiones del  
11 país.----- d. La realización de inventarios biológicos y  
12 estudios científicos aplicados sobre la conservación de los  
13 recursos naturales del país.----- e. La ejecución de programas  
14 de educación ambiental, a nivel nacional, con énfasis en las  
15 comunidades y regiones cercanas a los parques nacionales y  
16 áreas naturales protegidas del país.----- f. La ejecución de  
17 programas de reforestación, cultivos agroforestales, producción  
18 de leña y otros similares, a nivel nacional, que impulsen el  
19 desarrollo sostenido a través del uso racional de los recursos  
20 naturales del país, con énfasis geográfico en las comunidades  
21 aledañas a los parques nacionales y las reservas naturales de  
22 la nación.----- g. La conservación de la diversidad biológica  
23 en Panamá, con énfasis en la protección de aquellas especies  
24 raras, endémicas o en vías de extinción.----- h. Administrar  
25 los recursos, bienes o valores que reciba en donación o en  
26 cualquier otra forma, o actuar, con respecto a tales bienes,  
27 como fiduciario, de conformidad con el instrumento de  
28 fideicomiso que se establezca al efecto.----- i. Cualquier  
29 otra actividad lícita que promueva la conservación de los  
30 recursos naturales y la diversidad biológica de Panamá.-----

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PAPEL NOTARIAL

TAMBIEN NACIONAL  
B 400 CUATRO SALDAS B 400



1 ARTICULO 4: El patrimonio de la Fundación se destinara  
2 exclusivamente a los fines establecidos en el Artículo anterior

3 ARTICULO 5: La Fundación carece de ánimo de lucro, y por  
4 consiguiente sus bienes, beneficios, valorizaciones, y  
5 utilidades en ningún momento podrán pasar al patrimonio de  
6 personas naturales o jurídicas en calidad de distribución de  
7 utilidades, y los superavits operacionales que resulten de su  
8 funcionamiento se destinarán exclusivamente a incrementar su  
9 propio patrimonio y a cumplir los objetivos estatutarios.-----

10 ARTICULO 6: La duración de la Fundación será perpetua, y sólo  
11 podrá ser disuelta de conformidad con lo previsto en el  
12 Capítulo VIII de estos Estatutos.-----

13 -----CAPITULO II-----

14 -----PATRIMONIO:-----

15 ARTICULO 7: El patrimonio de la Fundación estará compuesto por  
16 los aportes de dineros o bienes que, a título de donaciones,  
17 herencias, contribuciones, legados, cuotas o a cualquier otro  
18 título reciba la Fundación de terceras personas, o por los  
19 ingresos que produzcan dichos aportes y que la Junta Directiva  
20 decida destinar a la adquisición de bienes para fortalecer y  
21 acrecentar tal patrimonio.-----

22 ARTICULO 8: Salvo que la Junta de Síndicos disponga otra cosa,  
23 la Fundación deberá cubrir sus costos ordinarios de operación  
24 con los ingresos que produzca su patrimonio.-----

25 -----CAPITULO III-----

26 -----AFILIADOS:-----

27 ARTICULO 9: Podrán afiliarse a la Fundación, sin derecho a  
28 voto y sin derecho a intervenir en forma alguna en la  
29 administración o dirección de la Fundación, las personas que  
30 deseen contribuir a las actividades de la Fundación y que sean

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1 aceptadas por la Junta de Síndicos.-----

2 -----CAPITULO IV-----

3 -----LA JUNTA DE SINDICOS:-----

4 ARTICULO 10: El organismo supremo y la autoridad máxima de la  
5 Fundación es la Junta de Síndicos, que tendrá control absoluto  
6 y dirección plena de los asuntos y actividades de la Fundación  
7 y que ejercerá las más amplias facultades de administración y  
8 de dominio respecto del patrimonio de la Fundación y de sus  
9 ingresos.-----

10 ARTICULO 11: La Junta de Síndicos estará compuesta por siete  
11 (7) miembros, quienes servirán ad honorem:-----

12 a. El Ministro de Planificación y Política Económica de  
13 Panamá, en su calidad de Presidente de la Junta Directiva del  
14 INRENARE o su suplente, el Director General del INRENARE.-----

15 b. Un representante del Organismo Ejecutivo, designado por el  
16 Presidente de la República, quien ocupará el cargo por un  
17 período de cinco (5) años a partir de su designación:-----

18 c. El Presidente de la Junta de Síndicos de la Asociación  
19 Nacional Para La Conservación De La Naturaleza (ANCON), o su  
20 suplente, el Director Ejecutivo de la Asociación Nacional Para  
21 La Conservación De La Naturaleza (ANCON).-----

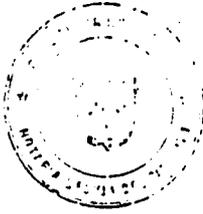
22 d. El Director General del Instituto Smithsonian de  
23 Investigación Tropical, radicado en Panamá:-----

24 e. Un representante de The Nature Conservancy, organización  
25 conservacionista privada internacional sin fines de lucro.-----

26 f. Un representante de la Fundación ANDE.-----

27 g. Un representante de la Asociación Nacional de Reforestadores  
28 y Afines (ANARAF).-----

29 ARTICULO 12: La Fundación será administrada y dirigida por la  
30 Junta de Síndicos, la cual tendrá las siguientes funciones:-----



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1 a. Velar por el cumplimiento de los Estatutos;----- b. Elegir  
2 de su seno a los dignatarios de la Junta, incluyendo al  
3 Presidente, al Vice-Presidente, al Tesorero y al Secretario de  
4 la Junta, pudiendo un Sindico desempeñar más de un cargo de  
5 dignatario;----- c. Nombrar al Director Ejecutivo de la  
6 Fundación;----- d. Crear los comités, consejos, organismos, o  
7 cargos que la Fundación necesite, fijarles sus atribuciones,  
8 reglamentar sus funciones, y determinar sus remuneraciones, o  
9 suprimirlos cuando lo considere conveniente;----- e. Expedir y  
10 modificar los reglamentos que estime convenientes para el  
11 manejo de la Fundación;----- f. Dirigir las finanzas de la  
12 Fundación, aprobar los presupuestos de la Fundación para  
13 periodos determinados, y revisar o aprobar o improbar en última  
14 instancia las cuentas de la Fundación. La Junta de Síndicos  
15 gozará de poder para gravar, arrendar, transmitir en  
16 fideicomiso y enajenar, en todo o en parte, los bienes de la  
17 Fundación; para reinvertir el producto de las referidas  
18 enajenaciones; para tomar y dar dinero en préstamo, para  
19 acumular, y reinvertir los frutos de los bienes de la Fundación;  
20 para abrir cuentas bancarias, girar contra las mismas o  
21 facultar a terceros para que lo hagan y convenir normas para su  
22 manejo; para transigir o someter a arbitraje o arbitramento  
23 cualquier controversia en que la Fundación sea parte; y para  
24 tomar cualesquiera providencias conservatorias que estimen  
25 oportuno respecto de los bienes de la Fundación para cumplir  
26 con los objetivos de la misma;----- g. Autorizar los gastos  
27 generales de la Fundación, en estricta conformidad con el  
28 presupuesto aprobado para el ejercicio fiscal correspondiente,  
29 y dentro de él, los gastos de inversión, y de operación,  
30 conforme se haya establecido en el dicho presupuesto.----- h.

E-90- 324193

1 Manejar los fondos que resulten o pudieran resultar de  
2 convenios de programas de canje, permuta o conversión de deuda  
3 por naturaleza, de conformidad con los convenios celebrados  
4 para llevar a cabo tales programas.----- i. Reformar los  
5 Estatutos con las formalidades establecidas en el Capítulo  
6 VII.----- Es entendido que las facultades antes mencionadas no  
7 entrañan emuneración taxativa ni restrictiva y, por lo tanto,  
8 la Junta de Síndicos tendrá respecto del patrimonio de la  
9 Fundación todas las facultades inherentes al pleno dominio.-----  
10 ARTICULO 13: Los Síndicos ejercerán sus respectivos cargos a  
11 título gratuito y, en consecuencia, no devengarán sueldo, ni  
12 remuneraciones, ni dietas, ni comisiones, ni emolumentos de  
13 ninguna otra índole.-----  
14 ARTICULO 14: Las reuniones de la Junta de Síndicos podrán  
15 celebrarse en la República de Panamá, o en cualquier otro lugar  
16 que los Síndicos determinen. La citación para cualquier  
17 reunión de la Junta de Síndicos la hará el Presidente de la  
18 Fundación mediante notificación escrita con no menos de 15 días  
19 de antelación a la fecha de la reunión. Estas reuniones  
20 deberán celebrarse por lo menos una vez por año, pudiendo la  
21 Junta de Síndicos acordar fechas periódicas de reunión, en cuyo  
22 caso no será necesaria la convocatoria, así como reunirse sin  
23 convocatoria previa cuando estén presentes todos los miembros  
24 de la Junta.-----  
25 ARTICULO 15: En las reuniones de la Junta de Síndicos  
26 constituirá quórum la presencia de la mayoría de los Síndicos.  
27 Cada Síndico tendrá derecho a un voto.-----  
28 ARTICULO 16: Los acuerdos de la Junta de Síndicos deberán  
29 adoptarse mediante el voto favorable de la mayoría de los  
30 Síndicos presentes, salvo que, por disposición de estos



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1 estatutos, deban aprobarse en forma unanime.-----

2 ARTICULO 17: El Presidente de la Junta de Síndicos y, en su  
3 defecto, el Vicepresidente, tendrá la representación legal de  
4 la Fundación ante terceros y representará la Fundación ante  
5 toda institución o funcionario público, ya sea como demandante,  
6 demandado, solicitante, querellante, opositor, coadyuvante,  
7 licitante, tercerista, recurrente, o en cualquier otro  
8 concepto, con facultad de sustitución. En ausencia de los  
9 anteriores, ostentará la representación legal de la Fundación,  
10 en su orden individual, el Tesorero y el Secretario de la Junta  
11 de Síndicos.-----

12 ARTICULO 18: Las deliberaciones, acuerdos y resoluciones de la  
13 Junta de Síndicos se harán constar en actas que se inscribirán  
14 en un libro que a tales efectos llevará la Fundación, y serán  
15 firmadas por el Presidente y el Secretario.-----

16 -----CAPITULO V-----

17 -----AÑO FISCAL-----

18 ARTICULO 19: El año fiscal de la Fundación será el Año  
19 Calendario, que termina el 31 de Diciembre de cada año. No  
20 obstante, la Junta de Síndicos podrá variar dicho periodo  
21 fiscal si lo considera conveniente.-----

22 -----CAPITULO VI-----

23 -----AUDITORIA:-----

24 ARTICULO 20: Anualmente se llevará a cabo un audito completo de  
25 los bienes y actividades de la Fundación por una firma indepen-  
26 diente de contadores públicos autorizados, que seguidamente le  
27 presentarán un informe financiero a la Junta de Síndicos.-----

28 -----CAPITULO VII-----

29 -----MODIFICACIONES:-----

30 ARTICULO 21: Los estatutos podrán ser reformados mediante el

1 voto favorable unánime de los miembros de la Junta de Síndicos.  
2 siendo entendido que tales reformas no podrán afectar la  
3 esencia de la institución.....  
4 -----CAPITULO VIII-----  
5 -----DISOLUCION:-----  
6 ARTICULO 22: La Fundación sólo podrá ser disuelta por el voto  
7 unánime de la Junta de Síndicos. en caso de que resulte  
8 imposible cumplir con sus objetivos.....  
9 ARTICULO 23: La disolución de la Fundación determinará la  
10 liquidación del patrimonio de la misma.....  
11 ARTICULO 24: Durante el periodo de la liquidación subsistirá la  
12 Fundación a los solos efectos de dicha liquidación.....  
13 ARTICULO 25: Disuelta la Fundación, los Síndicos tendrán la  
14 calidad de liquidadores. Las normas contenidas en estos  
15 estatutos relativas al funcionamiento y decisiones de la Junta  
16 de Síndicos son aplicables a las atribuciones que estos deban  
17 cumplir en su calidad de liquidadores.....  
18 ARTICULO 26: En caso de disolución el patrimonio de la  
19 Fundación sólo podrá ser entregado a otras asociaciones o  
20 entidades sin fines de lucro con fines análogos a los de la  
21 Fundación. Terminada la liquidación, los liquidadores harán  
22 constar tal hecho mediante acta que se inscribirá en el  
23 Registro Público y cuya inscripción pondrá fin a la existencia  
24 de la Fundación.....  
25 Panamá, 14 de septiembre de 1990.....  
26 (Firmado) Ilegible ----- FERNANDO ELETA ----- Presidente -----  
27 (Firmado) Ilegible ----- IRA RUBINOFF----- Secretario -----  
28 ES FIEL COPIA DE SU ORIGINAL-----  
29 (Firmado) Ilegible -----DIRECCION DE ASESORIA LEGAL-----  
30 \*\*\*\*\*



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TIMBRE NACIONAL  
B 400 CUATRO BALBOAS B 400

LEY No. 38 DE 1974

DIGITALIZADO POR UNAS



SELO-----REPUBLICA DE PANAMA-----MINISTERIO DE GOBIERNO Y

1 JUSTICIA-----Departamento Nacional Jurídico-----Dirección de

2 Asesoría Legal -----

3 Resuelto No. 119-----Panamá, 15 de marzo de 1991--

4 -----PERSONERIA JURIDICA-----

5 Mediante apoderado legal, FERNANDO Eleta Almaran, varón,

6 panameño, mayor de edad, casado con cédula de identidad

7 personal No. 8-30-79 y domicilio en la ciudad de Panamá, en su

8 condición de Representante Legal de la FUNDACION PARA LA

9 CONSERVACION DE LOS RECURSOS NATURALES, NATURA, solicita al

10 Ministerio de Gobierno y Justicia, le confiera a la misma

11 PERSONERIA JURIDICA.-----

12 Para fundamentar su pretensión, ha presentado los siguientes

13 documentos:----- a) Poder y solicitud;----- b) Acta de

14 Fundación;----- c) Acta de aprobación de Estatutos;----- d)

15 Estatutos aprobados; ----- e) Lista de Directivos.-----

16 Examinada la documentación presentada, ha quedado establecido

17 que la entidad no persigue fines lucrativos, sino que sus

18 objetivos, entre otros, son los de conservar y proteger los

19 recursos naturales de la cuenca del Canal de Panamá; y la

20 identificación, protección y manejo de los parques nacionales,

21 refugios de vida silvestre y las áreas protegidas de la

22 República de Panamá.-----

23 Como estos propósitos no pugnan con la Constitución Política de

24 la República de Panamá, ni con las disposiciones legales

25 vigentes que rigen la materia;-----

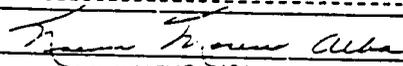
26 -----EL MINISTRO DE GOBIERNO Y JUSTICIA-----

27 -----en uso de sus facultades legales.-----

28 -----R E S U E L V E :-----

29 Aprobar, los Estatutos de la FUNDACION PARA LA CONSERVACION DE

30

1 LOS RECURSOS NATURALES. NATURA. y Reconocerle PERSONERIA  
 2 JURIDICA. conforme a lo establecido en los artículos 39 de la  
 3 Constitución Política; 64 y 69 del Código Civil. 14 de la Ley  
 4 33 de 8 de noviembre de 1984.-----  
 5 Toda modificación posterior a estos Estatutos, debe ser  
 6 sometida a la aprobación previa del Ministerio de Gobierno y  
 7 Justicia.-----  
 8 La PERSONERIA JURIDICA concedida no ampara actividades  
 9 distintas a las indicadas en los Estatutos aprobados.-----  
 10 Este Resuelto surtirá sus efectos legales a partir de su  
 11 inscripción en el Registro Público.-----  
 12 COMUNIQUESE Y PUBLIQUESE:-----  
 13 Sello --- Original Firmado--- Dr. RICARDO ARIAS CALDERON-----  
 14 RICARDO ARIAS CALDERON-----Ministro de Gobierno y Justicia---  
 15 Sello --- Original Firmado--- Licda. Ana Burgoa de Mantovani-----  
 16 ANA BURGOA DE MANTOVANI-----Viceministra de Gobierno Encargada-  
 17 ES FIEL COPIA DE SU ORIGINAL-----  
 18 (Firmado) Ilegible -----DIRECCION DE ASESORIA LEGAL---GR/dh.---  
 19 Adheridos Timbres Fiscales por un total de B/.5.20-----  
 20 SELLO-----REPUBLICA DE PANAMA-----MINISTERIO DE GOBIERNO Y  
 21 JUSTICIA-----Departamento Nacional Jurídico-----Dirección de  
 22 Asesoría Legal -----  
 23 -----  
 24 Concuerta con su original esta primera copia que expido, sello  
 25 y firmo en la Ciudad de Panamá, República de Panamá, a los  
 26 veintidos (22) días del mes de marzo de mil novecientos noventa  
 27 y uno (1991).-----  
 28   
 29 NOEMI MORENO ALBA  
 30 Notaria Pública D. C.



Contraloría General de la República



REPUBLICA DE PANAMA  
Ministerio de Hacienda y Tesoro

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TIMBRE NACIONAL  
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ARLAS, ALEJANDRO G. GONZALEZ  
ABOGADOS

LEY No. 38 de 1974

DECRETO EJECUTIVO No. 89 de 1974

1	
2	LINA D
3	Este documento se otorgó el día 11 de Mayo de 1991 a las 10:00 AM
4	en la ciudad de Panamá, República de Panamá, en el tomo 6043
5	del libro B-1350, folio 207, de la Oficina de Registro Público
6	de Panamá, D. C. a favor de
7	los señores: <i>[Handwritten names]</i>
8	<b>REGISTRESE</b>
9	<i>[Handwritten signature]</i>
10	
11	
12	INSCRITO EL DOCUMENTO ANTERIOR EN EL REGISTRO PUBLICO
13	Sección de Micropelícula
14	Ficha P-667255
15	Rollo 1257
16	Imagen 1002
17	Derechos B-1600
18	Panamá, 11 de Mayo de 1991.
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## ANNEX K

### CONSTRUCTION COST ESTIMATES

#### 1. COSTO ESTIMADO DE LAS FACILIDADES

El proyecto de Manejo de Recursos Naturales (MARENA) contempla la construcción de facilidades para el mejor manejo de los Parques y Reservas Nacionales. Estas facilidades incluyen edificios administrativos, Residencias para personal técnico, edificaciones para estaciones remotas, edificios para mantenimiento, refugios, casetas de control, facilidades de turismo, demarcación de senderos, demarcación de linderos, señalizaciones, etc.

Estas facilidades serán diseñadas en forma estandarizada, que permitan al que las vea o visite, identificar inmediatamente que esta ante una facilidad de INRENARE. Los acabados que se han considerado en estas construcciones son los siguientes: tendrán piso de hormigón con color verde, paredes de bloques con juntas resanadas en los lugares que sea posible o paredes de madera en lugares muy remotos y de difícil acceso, ventanas de vidrio en marcos de madera, puertas de madera sólida machimbrada, cieloraso suspendido, techo de metal acanalado verde sobre carriolas de metal.

Los servicios públicos se harán de acuerdo a los servicios disponibles en los sitios. Donde no existan energía eléctrica se proveerán plantas eléctricas que brinden el servicio y fuente de agua potable aceptable (de pozo excavado o fuente de ojo de agua de las cercanías), se dispondrá de las aguas servidas por medio de tanques sépticos. Se utilizarán letrinas en refugios y en lugares remotos de poco uso.

La accesibilidad de las facilidades ha sido un factor importante en determinar el costo unitario por metro cuadrado de construcción. Se ha promediado un costo que va de 50% al 100% de recargo adicional al costo de los materiales, para los lugares de mediano acceso y difícil acceso, respectivamente. El costo total de construcción se estima en \$3,218,800.

#### 2. RESUMEN DE EDIFICACIONES Y CONSTRUCCIONES

a. Edificios Administrativos: Un total de 21 edificios administrativos serán construidos, con 80 metros cuadrados de construcción por unidad, a \$300 por metro para un costo total de \$24,000 por unidad ó un total de \$504,000. La siguiente es la ubicación regional de los edificios administrativos (\*oficina administrativa principal):

- 4 Darién (El Real\*, Yavisa, Garachiné, Jaqué)
- 1 Chagres (Alajuela\*)
- 3 Soberanía (Entrada al Parque\*, Chilibre, Unión veraguense)
- 1 Campana
- 1 Bastimentos
- 1 Portobelo

- 3 El Copé (El Copé\*, Coclesito, Río Belén)
- 1 Taboga
- 2 Cerro Hoya (Loma Naranjo\*, El Cortezo)
- 1 Palo Seco
- 1 Sarigua
- 1 PILA (Panajungla)
- 1 Barú (Volcán)

b. Estaciones Remotas: Un total de 17 estaciones remotas serán construidas, con 90 metros cuadrados de construcción por unidad, a \$270 por metro para un costo total de \$24,300 por unidad ó un total de \$413,100. La siguiente es la ubicación regional de las estaciones remotas:

- 5 Darién (Sambú, Pirre, Balsas, Manené, Pucuro)
- 1 Chagres (San Juan de Pequeñí)
- 2 Soberanía (Frijoles y Agua Salud)
- 1 Campana (Trinidad)
- 1 Copé (Cortez del Norte)
- 1 Volcán Barú (Los Fogones)
- 2 Bastimentos (Cayo Zapatilla, Playa Larga)
- 2 PILA (Los Pozos de Volcán, Teribe)
- 1 Palo Seco (Almirante, Manecreek)
- 1 Portobelo (Río Indio)

c. Edificios de Mantenimiento: Un total de 25 edificios de mantenimiento serán construidos, con 70 metros cuadrados de construcción por unidad, a \$220 por metro para un costo total de \$15,400 por unidad ó un total de \$385,000. La siguiente es la ubicación regional de los edificios de mantenimiento:

- 2 PILA (Changuinola, Volcán)
- 1 Bastimentos
- 3 Copé
- 1 Campana
- 3 Soberanía
- 4 Chagres
- 1 Portobelo
- 1 Sarigua
- 2 Barú
- 4 Darién
- 1 Palo Seco
- 2 Cerro Hoya

d. Residencias para Personal Técnico: Un total de 27 residencias para personal técnico serán construidas, con 80 metros cuadrados de construcción por unidad, a \$300 por metro para un costo total de \$24,000 por unidad ó un total de \$648,000. La siguiente es la ubicación regional de las residencias:

- 6 PILA (Guabo de Yorquín, Nueva Zelandia, Culebra, Volcán, Río Sereno, Boca Chica)
- 2 Volcán Barú (Volcán)
- 1 Bastimentos (Bastimentos)

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- 3 Copé
- 1 Sarigua
- 1 Campana (Campana)
- 4 Chagres (Cerro Azul, Alajuela, Sardinilla, Boquerón)
- 1 Portobelo
- 4 Darién (El Real, Yavisa, Garachiné, Jaqué)
- 1 Palo Seco
- 2 Cerro Hoya
- 1 Isla Iguana

e. Facilidades para Turismo: Un total de 22 facilidades para turismo serán construidas a un costo total de \$15,000 por unidad ó un total de \$330,000. La siguiente es la ubicación regional de las facilidades para turismo:

- 3 Soberanía
- 3 Chagres
- 1 Darién
- 2 Pila
- 2 Bastimentos
- 2 Barú
- 2 Campana
- 2 Portobelo
- 2 Copé
- 1 Sarigua
- 1 Taboga
- 1 Isla Iguana

f. Refugios: Un total de 33 refugios serán construidos, con 28 metros cuadrados de construcción por unidad, a \$150 por metro para un costo total de \$4,200 por unidad ó un total de \$138,600. La siguiente es la ubicación regional de los refugios:

- 3 Soberanía (Limón, Limbo, Camino de Mant.)
- 3 Chagres (Sierra Llorona, Altos de Pacora, San Juan de Pec.)
- 5 Darién (Garachiné, Tucutí, Pirre, Pucuro, Balsa)
- 4 PILA (Nva Zelandia, Volcan, Teribe, Yorquín)
- 2 Bastimentos (Cayo Zapatilla, Playa Larga)
- 2 Palo Seco
- 3 Barú (Los Fogones, Los Mulatos, Arribo)
- 3 Campana (Filo del Lloron, Peñas Blancas, Mal Ganado)
- 2 Portobelo (Rio Piedra, Rio Grande)
- 3 Copé (Toabré, Boca Chica, Marta)
- 2 Cerro Hoya (Filo Cubolas, Cerro Hoya)
- 1 Sarigua

g. Casetas de Control: Un total de 12 casetas de control serán construidas, con 12 metros cuadrados de construcción por unidad, a \$175 por metro para un costo total de \$3,500 por unidad ó un total de \$42,000. La siguiente es la ubicación regional de las casetas:

- 3 Soberanía
- 3 Chagres

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- 3 Barú
- 2 Campana
- 1 Sarigua

h. Otras Obras de Construcción: Se contruirán en 13 lugares portones, cercas y señalamientos a un costo unitario de \$1,500 ó un total de \$19,500. Tambien, se demarcarán 848 kilometros de linderos (límites) a un costo unitario de \$700 por kilometro para un costo total de \$593,600. Además se demarcarán 110 kilometros de senderos a un costo unitario de \$1000 por kilometro ó un total de \$110,000.

i. Diseño: Un total de \$35,000 se ha estimado para los costos de diseño de las facilidades a construirse.

### 3. PLANOS ILUSTRATIVOS

Los planos ilustrativos de las facilidades para los parques se presentan a continuación:

Anexo K  
Costo Estimado de  
Construcción

Unidades a Construir: 21

Acabados:

Piso de hormigón, paredes de bloques resanados y madera, cielo raso suspendido, techo de metal acanalado.

Area de Construcción

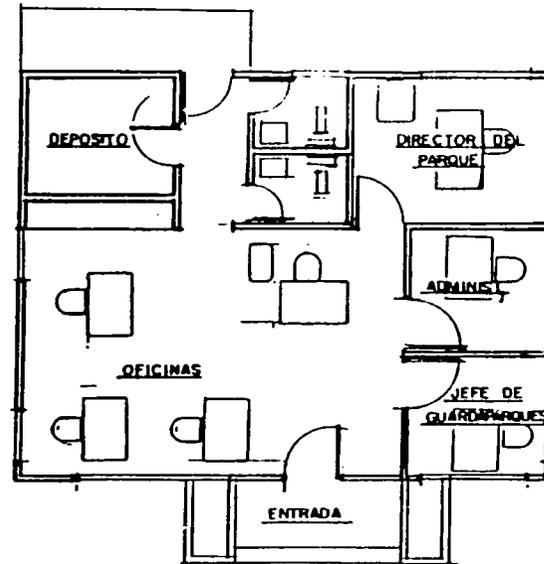
80 metros cuadrados.

Costo estimado unitario

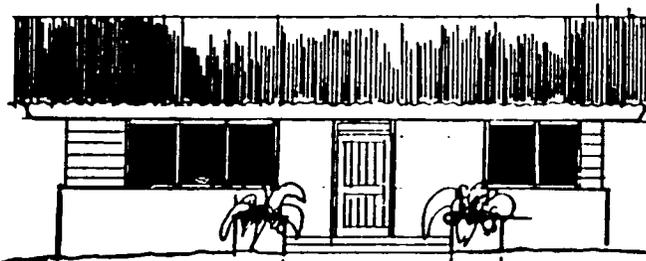
\$24,000 (300 \$/m<sup>2</sup>)

Costo estimado total

\$504,000

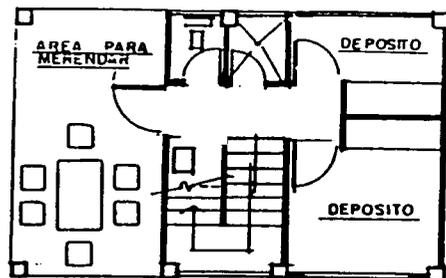


planta arquitectónica  
edificio para la sede administ. de los parques

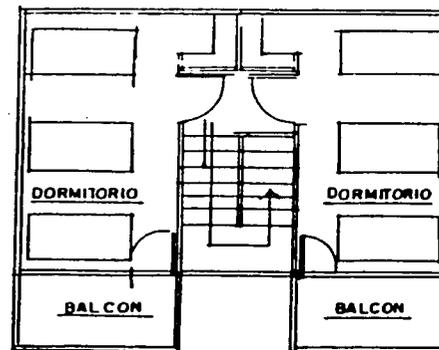


elev. principal

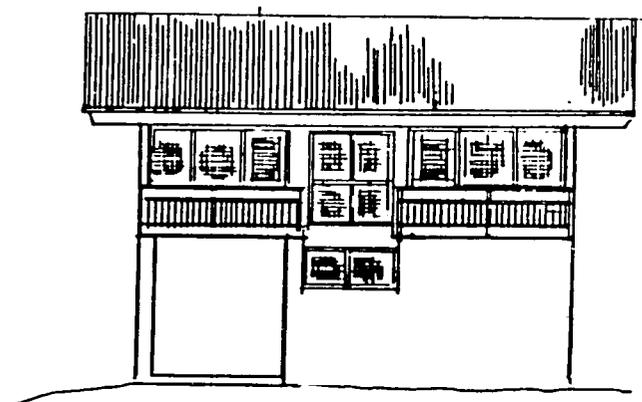
Anexo K  
Costo Estimado de  
Construcción



planta baja



planta alta



elev. principal

modelo de estaciones en areas remotas

Unidades a Construir : 17

Acabados:

Edificio de dos plantas. P.B. con piso de hormigón, paredes de bloques. P.A. piso de madera, paredes de madera y malla, techo de metal acanalado.

Costo Estimado Unitario

\$24,300 (270 \$/m<sup>2</sup>)

Costo estimado total

\$413,100

1/28

Anexo K

Costo estimado de  
Construcción

Unidades a Construir: 25

Acabados:

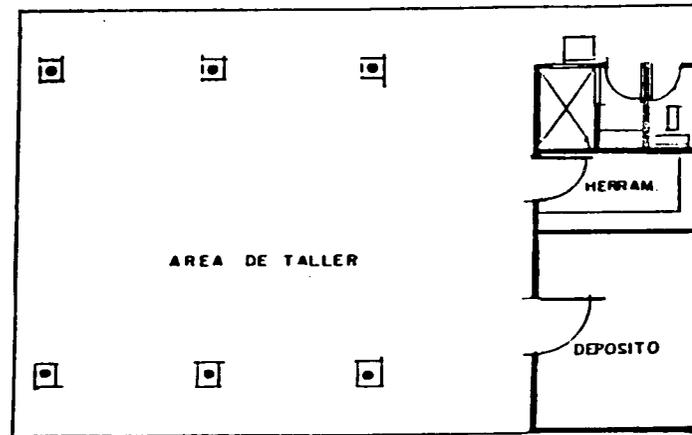
Galera con piso de hormigón, techo  
de metal acanalado con área cerrada  
con bloques.

Costo estimado unitario

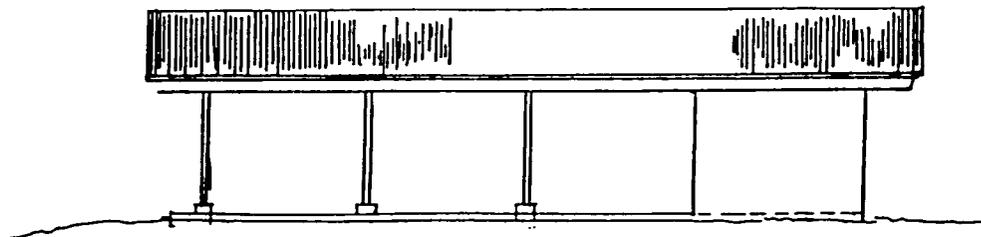
\$15,400 (220 \$/m<sup>2</sup>)

Costo estimado total

\$385,000



planta arquitectónica  
edificio de mantenimiento

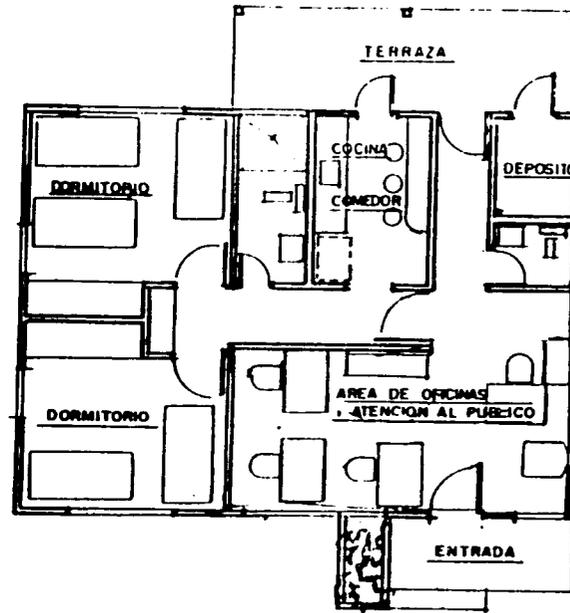


elevacion principal

181

Anexo K

Costo estimado de  
Construcción



## RESIDENCIA PARA PERSONAL TECNICO

Unidades a Construir: 27

Acabados:

Piso de hormigón, paredes de bloques resanados y madera, cielo raso suspendido, techo de metal acanalado.

Area de Construcción

80 metros cuadrados

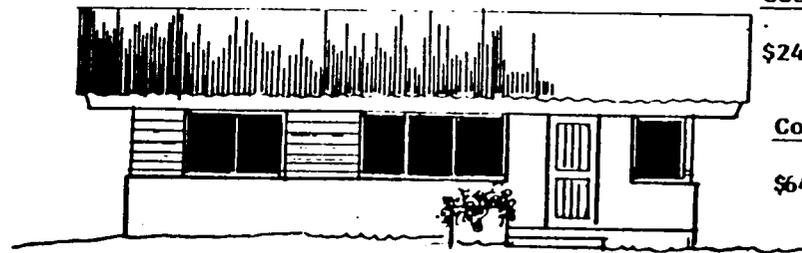
Costo estimado unitario

\$24,000 (300 \$/m<sup>2</sup>)

Costo estimado total

\$648,000

### planta arquitectónica

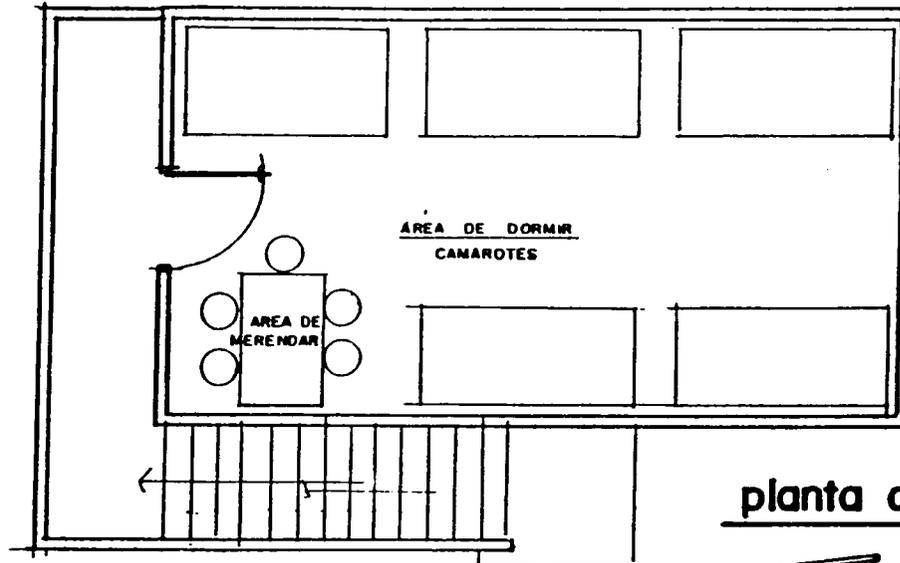


### elev. principal

140

Anexo K

Costo estimado de  
Construcción



planta arquitectónica

modelo de refugio

Unidades a Construir: 33

Acabados:

Edificio rústico de madera,  
y mallas, sobre columnas.

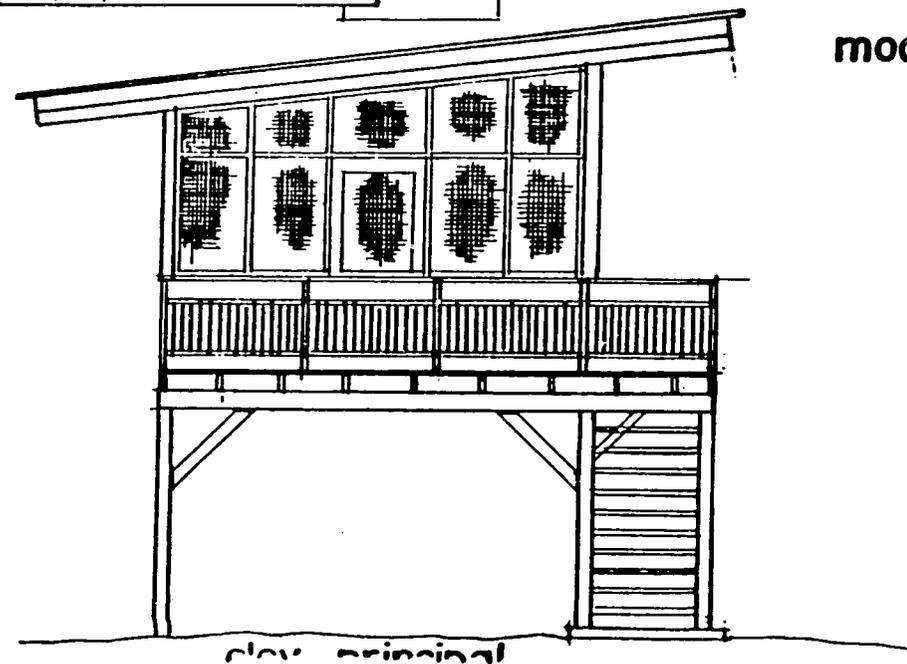
Piso de madera, techo de  
metal. acanalado.

Area de Construcción

28 metros cuadrados.

Costo estimado unitario

\$ 138,600 (150 \$/m<sup>2</sup>)



cav. principal

Anexo K

Costo Estimado de  
Construcción

planta arquitectonica

caseta de control

Unidades a Construir: 12

Acabados:

Piso de hormigón, paredes de  
bloques repellados, ventanas  
de malla en marco de madera,  
techo de metal.

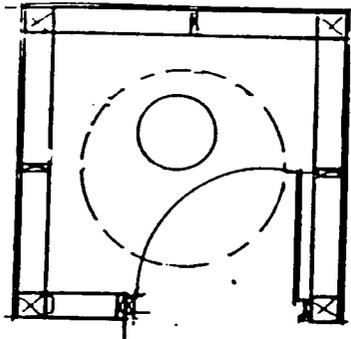
Costo estimado unitario

\$3,500 (175 \$/m<sup>2</sup>)

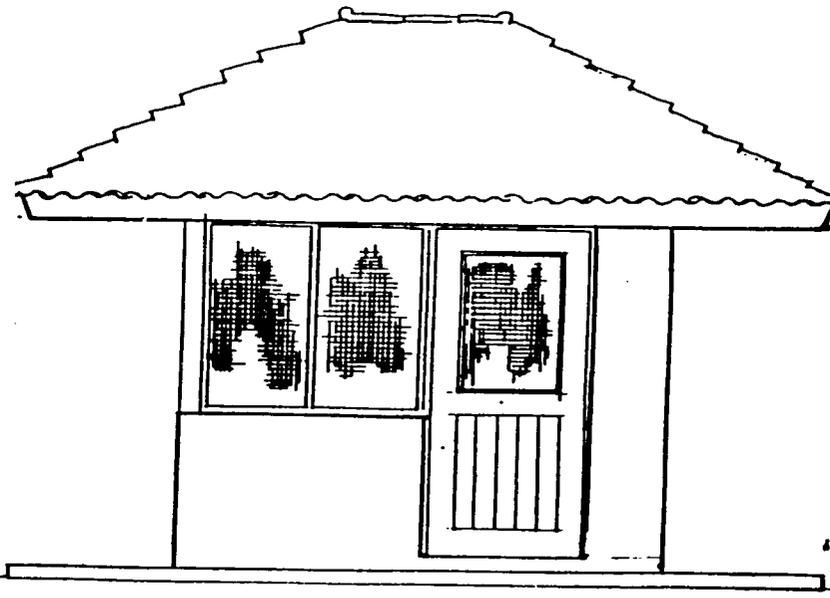
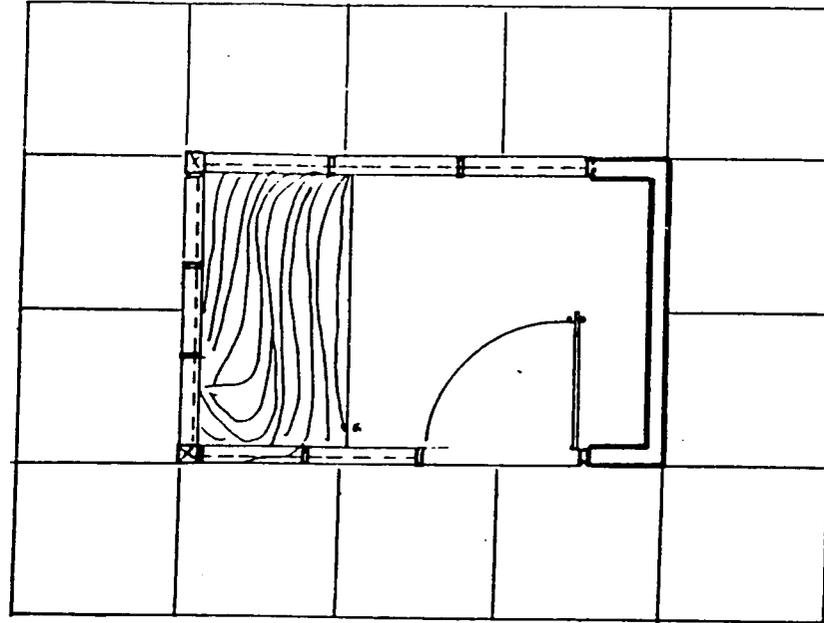
Costo estimado total

\$ 42,000

elev. principal



planta de letrina



-122-

ANNEX L

AGENCY FOR INTERNATIONAL DEVELOPMENT  
PANAMA CITY, PANAMA

UNITED STATES GOVERNMENT  
ACTION MEMORANDUM

Waiver Control No. \_\_\_\_\_

DATE: May 23, 1991  
TO: Kevin Kelly, Acting Director  
FROM: *RMM* Robert B. Stader, EXO/PEP  
Subject: Request for a Procurement Source/Origin and Nationality Waiver to include local procurement for Office Furniture

Cooperating Country: Panama  
Project: Natural Resources Management Project  
No. 525-0308  
Nature of Funding: Grant  
Description of Goods: Office Furniture  
Approximate Value: \$173,050  
Probable Source: Panama  
Probable Origin: Panama, U.S

Discussion and Justification: The Natural Resources Management Project will finance the purchase of various office furnishings required to implement the Project.

During the planning phase of this Project, every effort was made to maximize procurement from the United States. Out of a total commodity procurement budget of approximately \$1.7 Million, it is anticipated that only \$221,450 will not have both their source and origin in the United States.

As noted, there are certain commodities for which authority to Purchase outside the U.S. is requested, namely office furniture, valued at approximately \$173,050, because shipping of bulky furniture from the United States is not cost effective.

HB 1B Chapter 5 Paragraph 5B4a(6) provides that the authorized source/origin of commodities and commodity related services may be expanded to the extent necessary when, "Procurement in the cooperating Country (where it is not already eligible) would best

promote the objectives of the foreign assistance program." Mission experience has shown that due to transportation costs related to bulky furniture items and the potential for breakage in transit, the cost of importing furniture from the U.S. can be far too expensive and might greatly exceed the Project budget for furniture. However, if during solicitation it is found that U.S. origin furniture, available locally, is competitive with other similar furniture made in Panama, it will be purchased. Given that purchase of and particularly shipment from the U.S. of bulky furniture would be a waste of scarce development resources, the tests of HB 1B has been met.

Authority: Under Delegation of Authority 752, you have the authority to waive source and origin on nationality requirements provided that the amount of such waivers for commodities and services shall not exceed \$5 million per transaction.

Recommendation: For the reasons cited above, I recommend that by your signature below, you expand the authorized source/origin of commodities and commodity related services to include local procurement for the purchase of office furniture in the amount of \$173,050.

Approved:

K Kelly

Disapproved:

\_\_\_\_\_

Date:

5/24/91

Drafter:RS:yfg:10MAY91

Clearances: DGardella

JDonnelly (in draft)

JFearon (in draft)

KKelly \_\_\_\_\_

c:\wp51\document\MRN.A

GRG

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(7) ACTION: AII-3 INFO: AME DCM ECON EA

ANNEX M

VZCZCPNO471

PP RUEBZP

DE RUEHC #1427/01 0730009

ZNR UUUUU ZZH

P R 140006Z MAR 91

FM SECSTATE WASHDC

TO RUEBZP/AMEMBASSY PANAMA PRIORITY 1452

INFO RUEHTG/AMEMBASSY TEGUCIGALPA 1238

BT

UNCLAS SECTION 01 OF 02 STATE 081427

AIEAC FOP TSTUKEL

F.C. 12356: N/A

TAGS:

SUBJECT: NATURAL RESOURCES MANAGEMENT REVIEW (525-0308)

*Annet S. Vitoria B.*

14-MAR-91

TOR: 00:11

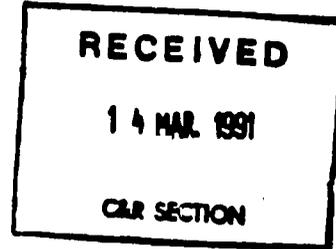
CN: 19641

CHRG: AID

DIST: AID

ADD:

**OFFICIAL FILE COPY** 03/28/91



1. IAC REVIEWED THE PROJECT SUMMARY ON DECEMBER 20. AS NOTED IN SEVERAL TELECONS WITH MISSION, OUR RESPONSE HAS BEEN DELAYED BECAUSE OF POLICY AND LEGAL ISSUES ASSOCIATED WITH PROPOSED FORESTRY ACTIVITIES.

2. IAC-GRANTS PROGRAM CONCURRENCE FOR THE MISSION TO PROCEED WITH FURTHER DEVELOPMENT OF THIS PROJECT, WITH THE EXCLUSION OF THE NATIONAL FOREST MANAGEMENT COMPONENT AT THIS TIME AND TO APPROVE THE PP IN THE FIELD SUBJECT TO THE FOLLOWING GUIDANCE:

A. WE BELIEVE THE PURPOSE STATEMENT SHOULD EMPHASIZE THE IMPORTANT ROLE OF THE PANAMA CANAL WATERSHED TO THE OVERALL PROGRAM.

B. WITH REGARD TO THE NATIONAL FOREST MANAGEMENT COMPONENT OF THE PROJECT, THE FY 1991 APPROPRIATIONS ACT CONTAINS THE FOLLOWING: "NONE OF THE FUNDS APPROPRIATED IN THIS ACT SHALL BE AVAILABLE FOR ANY PROGRAM, PROJECT, OR ACTIVITY WHICH WOULD A) RESULT IN ANY SIGNIFICANT LOSS OF TROPICAL FORESTS, OR B) INVOLVE INDUSTRIAL TIMBER EXTRACTION IN PRIMARY TROPICAL FOREST AREAS." THIS PROVISION EXPRESSLY PROHIBITS A.I.B. FROM USING ANY FY 1991 FUNDS FOR ANY PROJECT OR ACTIVITY INVOLVING INDUSTRIAL TIMBER EXTRACTION OF TROPICAL FORESTS. AS A MATTER OF LAW THIS PROVISION APPLIES ONLY TO FY 1991 FUNDS. THEREFORE, IT WOULD NOT APPLY TO THE PROPOSED FOREST MANAGEMENT COMPONENT IF THE MISSION FUNDS THIS PROJECT WITH FY 1990 FUNDS APPROPRIATED IN THE DIRE EMERGENCY SUPPLEMENTAL APPROPRIATIONS ACT ENACTED LAST MAY. THE DIRE SUPPLEMENTAL DOES, HOWEVER, CONTAIN A PROVISION RELATED TO FORESTRY MANAGEMENT: "NONE OF THE FUNDS APPROPRIATED IN THIS ACT FOR NICARAGUA OR PANAMA SHALL BE USED FOR ANY PROJECT THAT WOULD RESULT IN ANY SIGNIFICANT LOSS OF TROPICAL FORESTS." BEFORE USING FY 1990 FUNDS, THE MISSION WOULD HAVE TO DETERMINE IF THE PROJECT WILL RESULT IN A "SIGNIFICANT LOSS." IN ADDITION, AS

OFFICE	ACTION	INFO
MD		
DND		
EXO		
EXOPROC		
EXOPER		
PROB		
GEN DEV		
CONT		
PUB. ADMIN		
PRIV ENT		
CHRON		
READER		
OTHER		
G&R		
DUE DATE 03/18/91		
ACTION TAKEN N/A		
ATTACHM 3/28/91		
INITIALS		

*CN sent to bill 3/20*

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OFFICER.

- THE GREATER THE DEGREE TO WHICH THE MISSION CAN STRESS REFORESTATION, BIOLOGICAL DIVERSITY, AND SUSTAINABLE FORESTRY, THE BETTER CHANCE THE EA HAS OF BEING APPROVED.

D. SECTION 571 OF RECENT APPROPRIATIONS ACTS PROVIDES THAT NGOS MAY INVEST LOCAL CURRENCIES ACCRUING AS A RESULT OF DEBT-FOR-NATURE EXCHANGES AND THAT ANY INTEREST EARNED ON SUCH INVESTMENTS MAY BE USED FOR THE PURPOSE FOR WHICH THE ASSISTANCE WAS PROVIDED TO THE NGOS, INCLUDING ESTABLISHING AN ENDOWMENT. THE MISSION SHOULD REVIEW THE PROPOSED CONSERVATION TRUST FUND FINANCED THROUGH A DEBT-FOR-NATURE SWAP TO DETERMINE IF THE PROJECT COMPLIES WITH SECTION 571. UNDER THE SWAP AID/W UNDERSTANDS THAT THE GOP WILL COMMIT TO PROVIDE INTEREST ON THE CONSERVATION BOND OF DOLS 2.5 MILLION EACH YEAR OVER A THIRTY-YEAR PERIOD. THUS, THE SWAP WILL GENERATE A LONG-TERM SOURCE OF INCOME FOR ENVIRONMENTAL ACTIVITIES WELL BEYOND THE LOP.

E. WE UNDERSTAND THAT THE PP WILL CLARIFY HOW LONG THE BOARD OF TRUSTEES OF NATURA WILL EXIST AND THAT THERE WILL NOT BE A REPRESENTATIVE OF THE EMBASSY ON THE TECHNICAL COMMITTEE.

F. THE MISSION IS REQUESTED TO REEXAMINE THE APPROPRIATENESS OF USING ONLY THE U.S. FOREST SERVICE FOR PARKS' TECHNICAL ASSISTANCE AND WILDLIFE MANAGEMENT. GIVEN ELIMINATION OF FORESTRY ACTIVITIES AT THIS TIME, THE MISSION SHOULD CONSIDER WHETHER THE U.S. PARK SERVICE HAS AN APPROPRIATE CAPACITY TO PROVIDE TA FOR PARKS.

G. THE PROJECT SHOULD SEEK TO ENCOURAGE COOPERATION WITH COSTA RICA IN THE MANAGEMENT OF INTERNATIONAL PARKS.

H. IN ORDER TO PROVIDE MORE FLEXIBILITY WITH THE USE OF FUNDS FOR CERTAIN TYPES OF TA ACTIVITIES TO SUPPORT PROJECT START UP, THE MISSION MAY WANT TO CONSIDER ALLOWING A SPECIFIC AMOUNT OF TA TO BE USED PRIOR TO GOP COMPLIANCE WITH SUBSTANTIVE CPS FOR INITIAL DISBURSEMENT.

3. PLEASE ADVISE LAC OF PLANS REGARDING THE ENVIRONMENTAL ASSESSMENT AND IF THERE IS A NEED FOR ASSISTANCE FROM THIS END.

4. PLEASE RESUBMIT THE CN TO REFLECT THE CHANGES IN PROJECT DESIGN. KIMMITT

FT  
#1427

NNNN

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STATE 081427/02 OF 02

## INITIAL ENVIRONMENTAL EXAMINATION

Project Location : Panama  
Project Title : Natural Resources Management  
(MARENA)  
Project Number : 525-0308  
Funding : \$20 million  
Life of Project : 7 years  
IEE Prepared by : David S. Gardella  
USAID/Panama

### Recommended Threshold Decision:

#### A. Project Description:

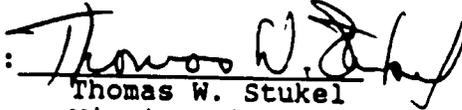
The planned project consist of a \$20 million 7-year project with the Government of Panama (GOP) and local environmental groups. The purpose of the project is to improve the conservation, management, and sustained productivity of soil, water and forest resources, through actions of both the public and private sectors.

The project will consist of four components: (1) Panama Canal Watershed Management to strengthen the integrated resources management capability of the GOP Natural Resources Management Institute (MARENA) in the Panama Canal Watershed and other priority areas; (2) National Parks and Wildlands Management to conserve the biological diversity of Panama through the protection and management of national parks and equivalent reserves; (3) National Forests Management to place three publicly owned productive forests under sustained yield management; and (4) Conservation Foundation to enhance public and private sector collaboration in the management of Panama's natural resources.

**B. Recommendation:**

USAID/Panama recommends a Positive Determination for the subject project. This recommendation is based on a finding that there exists the potential for significant environmental impact, and Congressional legislation requiring an Environmental Assessment on all forest production and management activities to ensure that all timber harvesting and related management activities will be carried out in an environmentally sound manner. Pursuant to 22 CFR 216.6 an Environmental Assessment will be carried out. The EA will focus on the National Forests Management component of the MARENA project.

Concurrence: \_\_\_\_\_

  
Thomas W. Stukel  
Mission Director  
USAID/Panama

Date: \_\_\_\_\_

5/17/91

Agency for International Development  
Washington, D.C. 20523

LAC-IEE-91-48

ENVIRONMENTAL THRESHOLD DECISION

Project Location : Panama

Project Title : Natural Resources Management (MARENA)

Project Number : 525-0308

Funding : \$20 million

Life of Project : 7 years

IEE Prepared by : David S. Gardella  
USAID/Panama

Recommended Threshold Decision : Positive Determination

Bureau Threshold Decision : Concur with Recommendation

Comments : An Environmental Assessment focusing on forest production and management activities will be prepared.

Copy to : Thomas W. Stukel, Director  
USAID/Panama

Copy to : David S. Gardella, USAID/Panama

Copy to : Wayne Williams, REA/CEN

Copy to : Mark Silverman, LAC/DR/CEN

Copy to : IEE File

John O. Wilson Date MAY 20 1991

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