

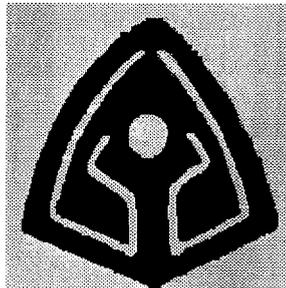
Nicaragua Natural Resource Management Project
Institutional Contract
Project No. 524-0314

Project Final Report

October 1993-November 1996

A collaborative project to strengthen the contribution of the Ministry of Environment and Natural Resources (MARENA) to environmentally sustainable development in Nicaragua

**Organizational
Change and Development**



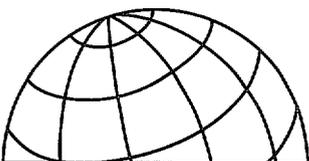
**Environmental
Legislation**

Protected Areas Management

Submitted to:
United States Agency for International Development/Nicaragua
under contract 524-0314-C-00-4003-00

Submitted by:
Tropical Research & Development, Inc.
Gainesville, Florida

November 1996



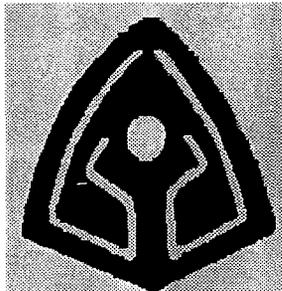
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ACRONYMS

CATIE	Centro Agrónomo Tropical de Investigación y Enseñanza
CIAM	Environmental Interpretation Center (of the Volcán Masaya National Park)
CIRH	Centro de Investigaciones de Recursos Hidrobiológicos
CITES	Convention on International Trade of Endangered Species of Flora and Fauna
EIA	Environmental Initiative for the Americas
GEL	General Law of the Environment and Natural Resources (Nicaragua)
GIS	Geographic Information System
GON	Government of Nicaragua
IRENA	Institute for Natural Resources and Environment (now MARENA)
LSPA	Public Sector Environmental Law
LOCP	Ley de Organización, Competencia, y Procedimiento
MEDE	Nicaragua Ministry of Economic Development
MARENA	Ministerio del Ambiente y Recursos Naturales de Nicaragua
NGO	nongovernmental organization
PAA-NIC	Proyecto Acción Ambiental - Nicaragua
PAF-NIC	Proyecto Acción Forestal - Nicaragua
PNVM	Volcán Masaya National Park
RENARM	regional natural resource management
SOW	Statement of Work
STTA	short-term technical assistance
TR&D	Tropical Research and Development, Inc.
USAID	United States Agency for International Development
USEPA	United States Environmental Protection Agency
VMFO	Vision, Mission, Function, and Objectives

1.0 A BRIEF HISTORY OF THE NATURAL RESOURCE MANAGEMENT PROJECT

1.1 Project Purpose and Goals

Tropical Research and Development, Inc. (TR&D) was awarded a three-year contract in October 1993 to assist the United States Agency for International Development (USAID) and the Government of Nicaragua (GON) in implementing the Natural Resource Management Project. The general goal of this project is to contribute to the development of environmentally sustainable, broad-based economic growth in Nicaragua. The specific strategic objective is to improve the management of renewable resources and protect biological diversity in selected sites by supporting sound, environmentally sustainable development activities.

The USAID Nicaragua Natural Resource Management Project was originally designed to provide technical assistance, training, and commodity support under five general components. Of the five following components, TR&D was contracted to implement the first three and to coordinate with activities in the other two:

1. Institutional development and strengthening of the Nicaraguan Institute for Natural Resources and Environment (IRENA) and selected private sector institutions;
2. Policy development, dialogue, and implementation for the sustainable use of natural resources and conservation of environmental quality;
3. Environmental education efforts, including two pilot projects and the preparation of a national environmental education strategy;
4. Protected areas and buffer zones; and¹
5. Plant protection and integrated pest management.²

1.2 Original Contract Statement of Work (SOW)

Appendix 4.1a contains the original TR&D contract Statement of Work (SOW) (Section C). TR&D's original role and contractual responsibilities under the Natural Resource Management Project are to:

¹The work in the two main protected areas and their buffer zones was to be implemented through cooperative agreements with two U.S.-based nongovernmental organizations (NGOs); Caribbean Conservation Corporation had responsibility for the Miskito Cays National Park and The Nature Conservancy for the Bosawas Reserve .

²Plant protection and integrated pest management was to be implemented through a buy-in with the regional natural resource management (RENARM) project, including involvement of the Panamerican Agricultural School (El Zamorano) and the Centro Agrónomo Tropical para la Investigación y Enseñanza (CATIE).

- Serve as the principle advisor to IRENA on environmental and policy matters; providing advice to IRENA's minister and the heads of departments.
- Coordinate project activities with other donors to ensure complementarity of efforts;
- Draw on the experience and resources of IRENA and other Nicaraguan institutions to provide and coordinate the services of a wide range of short-term specialists during project implementation, coordinating the specific expertise and duration of task with IRENA's management;
- Assist IRENA to become a strong and efficiently managed institution by identifying long- and short-term training needs and facilitating the actual training and improving institutional planning and budgeting;
- Aid IRENA in developing natural resource policies and environmental policies for the sustainable use of natural resources by developing and strengthening the appropriate forums for policy dialogue, addressing the institutional constraints, drafting policy papers and new legislation, and providing relevant short-term training in environmental resource management policy issues; and
- Collaborate with IRENA in implementing two pilot environmental education projects and preparing a national environmental education strategy.

The First Quarterly Report (TR&D, 1994) includes a list of activities developed for the first 3 months of 1994, which included training needs assessment, Volcán Masaya National Park development, first-year workplan development, and environmental education activities.

1.3 Changes in Contract SOW and Project Focus

On January 10, 1994, the Nicaragua government announced that IRENA would be elevated from an institute to the level of a government ministry (MARENA). SOW and project focus changes closely matched changes in Ministerio del Ambiente y Recursos Naturales de Nicaragua (MARENA) leadership (Figure 1). In November 1994, MARENA Minister Jaime Incer was replaced by Milton Caldera. Mr. Caldera established a different agenda for MARENA oriented primarily to organizational change and development of the institution. In part as a result of these two changes, the TR&D Natural Resource Management Project SOW was re-defined early in 1995 to emphasize technical and training assistance for re-organization of IRENA to MARENA. When Claudio Gutierrez became Minister in January 1996, project focus shifted to an emphasis on improvements to infrastructure and management of Volcán Masaya National Park and development of environmental legislation while continuing some activities in institutional strengthening.

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FIGURE 1. CHANGES IN MARENA LEADERSHIP AND EMPHASIS



Dr. Jaime Incer
Emphasis:
Protected Areas
Creation of MARENA

Ing. Milton Caldera
Emphasis:
Institutional Strengthening
Organizational Development

Ing. Claudio Gutiérrez
Emphasis:
Volcán Masaya
National Park
Environmental Legislation



1.3.1 SOW Modification - May 1995

In May 1995, the project SOW was formally modified to emphasize institutional strengthening, change and development (Appendix 4.1b). Emphasis was also placed on assisting institutional efforts to develop natural resources and environmental policy and related legislation, improving protected areas management, and assisting MARENA in developing its role in the National Environmental Education Commission. Technical areas such as land use capability, Geographic Information System (GIS) training and support and watershed management assistance became low priorities that were to be implemented in response to specific ministry requests. However, MARENA did not request support for these activities after May 1995.

1.3.2 SOW Modification - January 1996

In late 1995, the project SOW was in the process of being revised to include a greater emphasis on support for Volcán Masaya National Park and the Convention on International Trade of Endangered Species of Flora and Fauna (CITES). In January 1996, MARENA Vice-Minister Claudio Gutierrez replaced Milton Caldera as the new Minister of MARENA. This change resulted in a shift of priorities for MARENA and a third modification was formally made in the project SOW in January with Contract Amendment #8 (Appendix 4.1c). The major differences between the May 1995 and January 1996 statement of work include:

- Deleting plans to develop a strategic information/communication system.
- Under the category of Protected Areas, emphasizing development of the Volcán Masaya National Park at the request of USAID and MARENA. Although not specifically mentioned in the SOW, the Environmental Initiative for the Americas (EIA) Fisheries program support was also included in programmatic activities and justified as part of tasks to be completed under Protected Areas.
- Adding CITES training support at the request of USAID and MARENA.

1.3.3 Subcontract - Tropical Science Center

The original TR&D proposal submitted in response to the USAID Project Request for Proposal included Tropical Science Center as a subcontractor for its strong technical expertise in land use studies and training, as well as in development of natural resources policies laws and regulations. However, due primarily to the heavy emphasis on institutional strengthening and Volcán Masaya National Park infrastructure improvement, Tropical Science Center subcontract funds were never put to use as originally planned and were instead re-allocated in early 1996 to priority project components through a contract modification.



1.3.4 Summary of SOW Activities

The SOW lists three closely linked, priority activities that laid the groundwork for TR&D's workplans (Figure 2):

- Organizational Change and Development/Institutional Strengthening;
- Development of Environmental Legislation, Strategy, and Policy; and
- Protected Areas Management/Volcán Masaya National Park

Work and results for these activities support the USAID results framework shown in Figure 3.

**FIGURE 2. CONTRACT STATEMENT OF WORK
Section C**

SPECIFIC TASKS TO BE ACCOMPLISHED

**Assist MARENA to achieve a strong,
efficiently managed institution**

The Contractor shall advise and assist in:

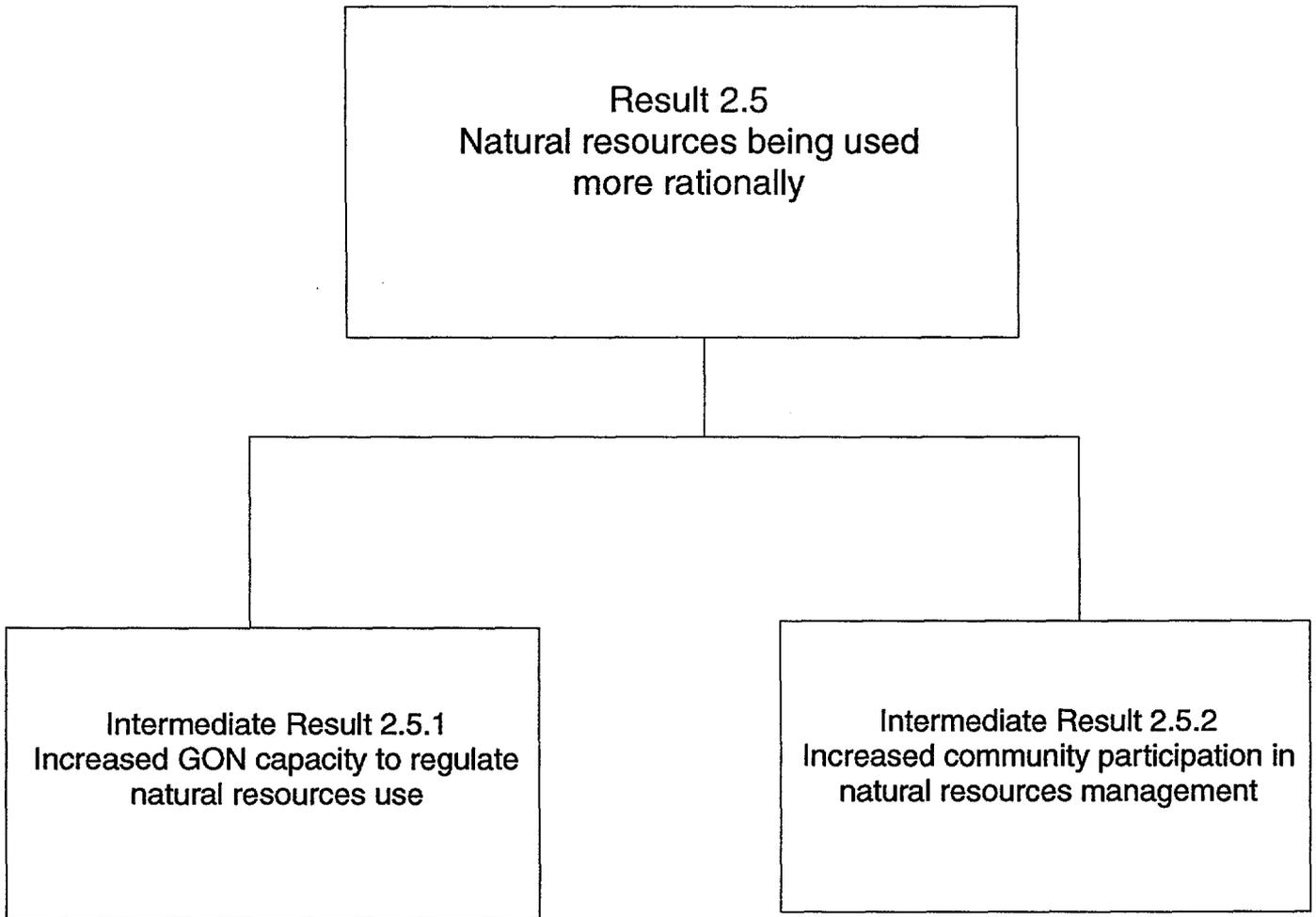
- a. Organizational Change and Development**
- b. Institutional Building and Strengthening**

**Assist MARENA's institutional efforts to develop natural
resources and environmental policy and related plans**

*The Contractor shall support Government of Nicaragua (GON) and
Private Voluntary Organization (PVO) efforts, in coordination with
MARENA, in the following areas:*

- a. Natural Resource Legislation**
- b. Natural Resources Policy and Strategy**
- c. Protected Areas**

Figure 3. USAID Results Framework



2.0 OBJECTIVES, ACTIVITIES AND RESULTS

The following text for each project component summarizes the most important results of each and directly addresses each activity statement (objective) in the most recent project SOW. Appendices 4.2, 4.3, 4.4, 4.5, and 4.6 contain detailed information on activities, results, technical assistance, and documents produced.

2.1 Institutional Change and Development

This component was of highest priority during the MARENA administration of Milton Caldera (1995), when IRENA was in the process of changing to MARENA, and continued as part of a broader program in Claudio Gutierrez' administration (1996). The majority of project activity occurred in this component through July 1996.

TR&D hired Mirette Seireg in September 1994 as a training specialist for the institutional strengthening component. The work described in the following paragraphs was a success primarily because of Ms. Seireg's leadership in coordinating and facilitating work with MARENA counterparts.

The implementation approach used in this component emphasized the use of focus groups with a participatory approach involving as many stakeholders as possible in developing draft workplans, documents, and vision and functions for the future.

Objective 2.1.1 *Definition and review of Vision, Mission, Functions, and Organizational (VMFO) Structure for the institution as a whole and for each of its units.*

Result Highlights:

- Institutional VMFO finalized (February 1995) after a 2-month process involving a core group of 5 MARENA employees and a MARENA top leadership team of 10 persons. Success was attributed in large part to strong MARENA leadership under Milton Caldera, and the work of TR&D's workshop facilitator, Alfredo Gonzalez.
- By May 1995, the re-organization process resulted in a significant downsizing of MARENA's structure from 1,269 positions (in 1994) to 837, which represents a 34 percent reduction in the work force. Redundant and unnecessary positions were eliminated.
- Transitional Institutional VMFO (June 1995). A first draft of objectives and functions for all departments and a transitional organizational structure were produced within each department. The lack of organization within MARENA was

B

previously so great that it took 3 months (March to May 1995) to positively identify MARENA employees and the unit in which they were working. For the first time, departmental functions as they currently exist were documented. Focus groups within MARENA, with strong TR&D support, accomplished this effort.

- VMFO ratified for MARENA after 1 year and VMFO produced, by consensus, for all MARENA units (June 1996). This result was identified as a 1996 strategic objective and part of the 1996 Institutional Operative Plan for MARENA drafted at a TR&D/MARENA workshop in February. TR&D consultant, Alejandro Bolaños, trained the newly consolidated Planning Department to perform the work. The Planning Department trainees subsequently trained members from within each unit of MARENA. The final document was produced after 16 workshops had been completed.
- Projects were incorporated into the organizational structure for the first time (1996). Formerly, donor-funded projects were organizationally isolated, independent from the technical units, and they generated 80 percent of MARENA's operational budget. The Planning Department's primary function is monitoring projects against Annual Operational Plans.

Objective 2.1.2 *Develop manuals for functions, norms, and procedures as well as professional profiles for positions defined in the organizational structure.*

Results Highlights:

- The Manual de Cargos/Job Description Manual was completed in July 1995. This complete manual lists the 110 positions that were identified in the Organizational Structure. For the first time, job descriptions were documented, and the objectives, functions, and requirements of each position are listed. This process was particularly challenging since it was performed just after a period of significant downsizing, thus increasing the work load for employees.

Objective 2.1.3 *Develop methods for disseminating this information in ways that are understandable and useful to all employees.*

Results Highlights:

- MARENA produced a summary booklet of the 1996 VMFO for general distribution. The Planning Department will be distributing them over a period of approximately 6 months during workshops, seminars, and other similar events.

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Objective 2.1.4 *Develop a Human Resources Division.*

Results Highlights:

- The Human Resources Division was planned and created from June to September 1995, under the direction of Human Resource Specialist and TR&D consultant Blanca Varel. For the first time, there is now a file on all MARENA employees, as well as norms and procedures established for personnel selection, hiring, promotion, and firing. Upon termination of her consultancy with TR&D, Blanca Varel was contracted by MARENA to head the Division of Human Resources she had helped to organize.

Objective 2.1.5 *Develop a detailed training plan based on identification of specific and priority training needs, provision and coordination of assistance to meet those needs, and monitoring and evaluation of institutional impact of training efforts.*

Results Highlights:

- A draft training plan was developed in February 1996 which, at the request of the Minister, targeted training efforts for the Dirección General de Areas Protegidas, Pesca y Fauna/Department of Protected Areas, Fisheries and Fauna.
- In March 1996, TR&D and the Director of the Planning Department, Cristina Puhiera, who had been commissioned to perform an identical task, joined efforts and developed one plan that was presented to the Minister.

Objective 2.1.6 *Assist in developing and implementing strategies for improved inter-agency communication.*

Results Highlights:

- A major accomplishment was the formation of inter-agency focus groups that generated the necessary public discussion and debate during the process of drafting environmental and natural resource legislation and regulations.
- With significant TR&D assistance, MARENA reached out to 16 public agencies to discuss and resolve duplications and inconsistencies in their functions under the Public Environmental Sector Project (see Natural Resource Legislation, Policy, and Strategy section).

2.2 Natural Resource Legislation, Policy, and Strategy

Natural Resource Legislation, Policy, and Strategy is listed in TR&D's SOW as a second priority. In 1995, Project Representative Mirette Seireg coordinated and supervised all these activities. In 1996, a Legal Coordinator/Advisor, Steve Pelliccia, was hired to assume that role. He worked closely with TR&D's Legal Assistant, Rosario Saenz, to facilitate drafting and passage of environmental legislation.

Objective 2.2.1 Assist MARENA in drafting an Organic Law.

Results Highlights:

- A final draft of the Organic Law, prepared with full participation and consensus among all organizational units within MARENA, was completed in early October 1995 under the technical direction of TR&D Consultant and President of the Nicaraguan Bar Association, Dr. Ivan Escobar Fornos. Simultaneously, other deliverables were prepared at the request of the Minister, including:
 - Internal Statutes, which accompany the Organic Law
 - Annual Work Plan for the newly created Office of Norms and Regulations

Objective 2.2.2 Assist MARENA and the National Assembly in ongoing efforts to draft natural resource and environmental legislation, including a new protected areas law. Assist MARENA in the revision of environmental laws to meet requirements at the regional level.

Results Highlights:

- With the assistance and guidance of TR&D's Legal Team, draft legislation was developed and discussed with all stakeholders during large conferences. International environmental law experts provided short-term technical assistance to ensure that all draft legislation and regulations under development measured up to international and regional quality standards. Key areas of assistance:
 - Regulations for the General Environmental Law (Signed by President Chamorro - July 15, 1996)
 - Detailed Draft Regulations for Protected Areas Section of the GEL (Delivered to MARENA Division of Protected Areas - November 1996)
 - Draft Biodiversity Law (Delivered to MARENA Division of Protected Areas - November 1996)

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- Government/Industry-Wide Conference on Draft Fisheries Law Pending in National Assembly (June 10, 1996)
- Government/Industry-Wide Conference on Draft Toxic Substance and Pesticide Control Law Pending in National Assembly (July 31, 1996)
- Regulations for Auto Emissions Articles of the General Environmental Law (October 1996)
- Procedures Manual for the Office of the Procuraduria del Ambiente (November 1996)

TR&D's Legal Team did not develop draft protected areas legislation because MARENA leadership specifically requested that TR&D instead focus its assistance on developing a draft biodiversity law and detailed regulations for the Protected Areas Section of the General Environmental Law.

Objective 2.2.3 *Provide support to private voluntary organizations to develop regulations for legal recognition of existing indigenous communal land claims.*

- Due to its politically sensitive nature, support was not directly provided in this area at the direction of TR&D's Contracting Officer's Technical Representative at USAID/Nicaragua. However, working with counterparts from MARENA and the Office of the Presidency, TR&D's Legal Team drafted a Presidential Decree Establishing a National Commission for the Demarcation of Indigenous Lands of the Atlantic Coast. This decree was signed by President Chamorro and officially published in the National Gazette on September 6, 1996.

Objective 2.2.4 *Study existing policies and report on how these policies affect Nicaragua's natural resources and the environment, specifying institutional responsibilities for carrying out existing and prospective policies in the natural resources sector. Assist MARENA in defining institutional responsibilities for natural resources management.*

Results Highlights:

- Working with counterparts from the Planning Department at MARENA, TR&D consultants reviewed all Natural Resource/Environmental Treaties, Agreements, and Commissions binding MARENA. MARENA's institutional responsibilities are outlined in a lengthy and comprehensive document produced under the direction of TR&D Consultant Garcia Cantarero. This document, Analysis and Organization of Commissions, Agreements, and Treaties, was completed in June 1996.

Objective 2.2.5 Assist MARENA in defining institutional responsibilities for natural resource management among ministries, identify overlaps in responsibility, and provide recommendations and technical assistance as requested to resolve outstanding policy issues.

Results Highlights:

- A preliminary Draft Public Sector Environmental Law (LSPA) was developed in August 1995 after extensive consultation among all divisions within MARENA. This draft law identified and corrected overlaps and inconsistencies among the 16 Nicaraguan government institutions involved in environmental and natural resource management. Subsequently, over 40 meetings were held with these 16 institutions to resolve outstanding policy issues. Simultaneously, the Office of the Presidency had begun its own reorganization effort of all Nicaraguan government ministries. This effort is reflected in a draft law entitled Ley de Organizacion, Competencia y Procedimiento del Poder Ejecutivo (LOCP), produced by the Office of the Presidency and submitted to the National Assembly.

In November 1995, TR&D Legal Consultant Ivan Escobar Fornos delivered the final draft of the LSPA to the MARENA leadership. At the same time, Dr. Escobar drafted a letter to the Office of the Presidency signed by MARENA Vice-Minister Enrique Brenes, suggesting modifications to the LOCP based on the work MARENA and TR&D had done in drafting the LSPA.

Objective 2.2.6 Assist MARENA in developing and improving its overall plan for managing the national system of protected areas.

Results Highlights:

- Working with counterparts from MARENA's Protected Areas Department and ADFOREST division, TR&D consultants drafted Protected Areas Land Titles, with accompanying maps, for 13 of the 75 legally recognized Protected Areas within Nicaragua. In March 1996, copies of the set of maps and titles were submitted to MARENA Direccion Superior and the ADFOREST Division.
- Detailed Draft Regulations for the Protected Areas Section of the General Environmental Law were developed in October 1996. These draft regulations provide a management scheme for administering Nicaragua's National System of Protected Areas along with technical definitions for the different categories of protected areas within the National System of Protected Areas. International Protected Areas Expert Alonso Matamoros of Costa Rica's National Biodiversity Institute, provided technical assistance in developing these regulations. In addition, Mr. Matamoros completed a guide for MARENA's Division of Protected

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Areas entitled Technical Considerations In Developing a Strategy for Managing Nicaragua's National System of Protected Areas.

2.3 Protected Areas - Volcán Masaya National Park (PNVM)

Since December 1993, MARENA, USAID and TR&D have worked cooperatively to develop Volcán Masaya National Park, including plans to improve park structures, transportation systems, work plan development, technical training activities, and design of environmental programs. SOW objectives and the following results highlights summarize accomplishments achieved in these priority areas.

The Volcán Masaya National Park component was designed to provide a model for MARENA in developing and improving its overall plan for managing the national system of protected areas.

Objective 2.3.1 *Assist MARENA in developing and improving its overall plan for managing the national system of protected areas. Assist in improving and reinforcing management plans for Volcán Masaya National Park and subsequently in developing management plans for other priority protected areas.*

Results Highlights:

- A study and workshop conducted by James R. Barborak, Protected Areas Planner, resulted in detailed recommendations being used for improving long- and short-term strategic and operative plans for the Volcán Masaya National Park, including an emphasis on personnel training and improvements in infrastructure development, ecotourism, and environmental education.
- Volcanologist Debbie Jerez-McPherson conducted a geologic/volcanic study and risk assessment, the results of which were used to make management decisions about safety issues affecting park visitors and personnel. As a result of her work, after much previous controversy and indecision, MARENA closed one of the overlooks for Crater Santiago to vehicular traffic due to the instability of the site, which Ms. Jerez-McPherson confirmed.
- Three MARENA employees directly involved in managing Volcán Masaya National Park and other protected areas were trained in specialized courses on protected areas management outside of Nicaragua.
- Eight construction plans to improve key sites in the park and a manual on Nicaragua bidding procedures were completed for the specific use of USAID to continue with the plan's construction phase to improve park infrastructure. Plan development took place during a long, collaborative process that included

numerous specialists (topographer, landscape architects, civil/structural engineers, and architects), the MARENA/Volcán Masaya National Park Project Team, the park director, TR&D coordinator, and USAID. The map in Figure 4 illustrates park design and shows percentages of completion for construction plans at the end of the project.

Objective 2.3.2 *Assist MARENA in improving management and operations of protected areas through increased participation by local government, NGOs, and other partners, defining management focus of units, and assisting in developing plans for the sustainable financing and participation by other interests in the management of protected areas.*

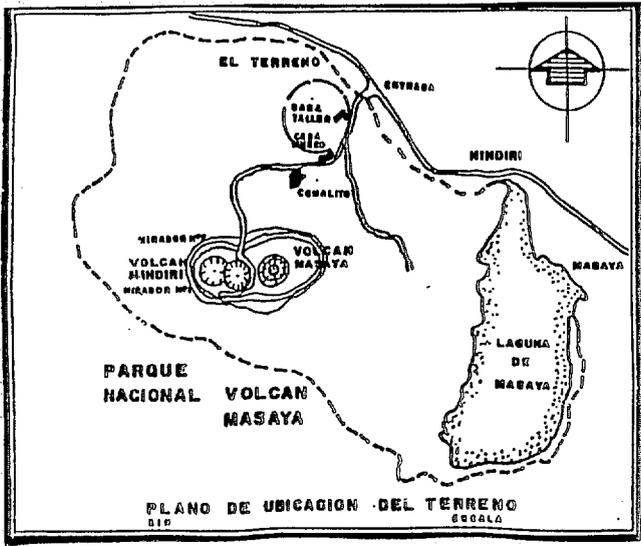
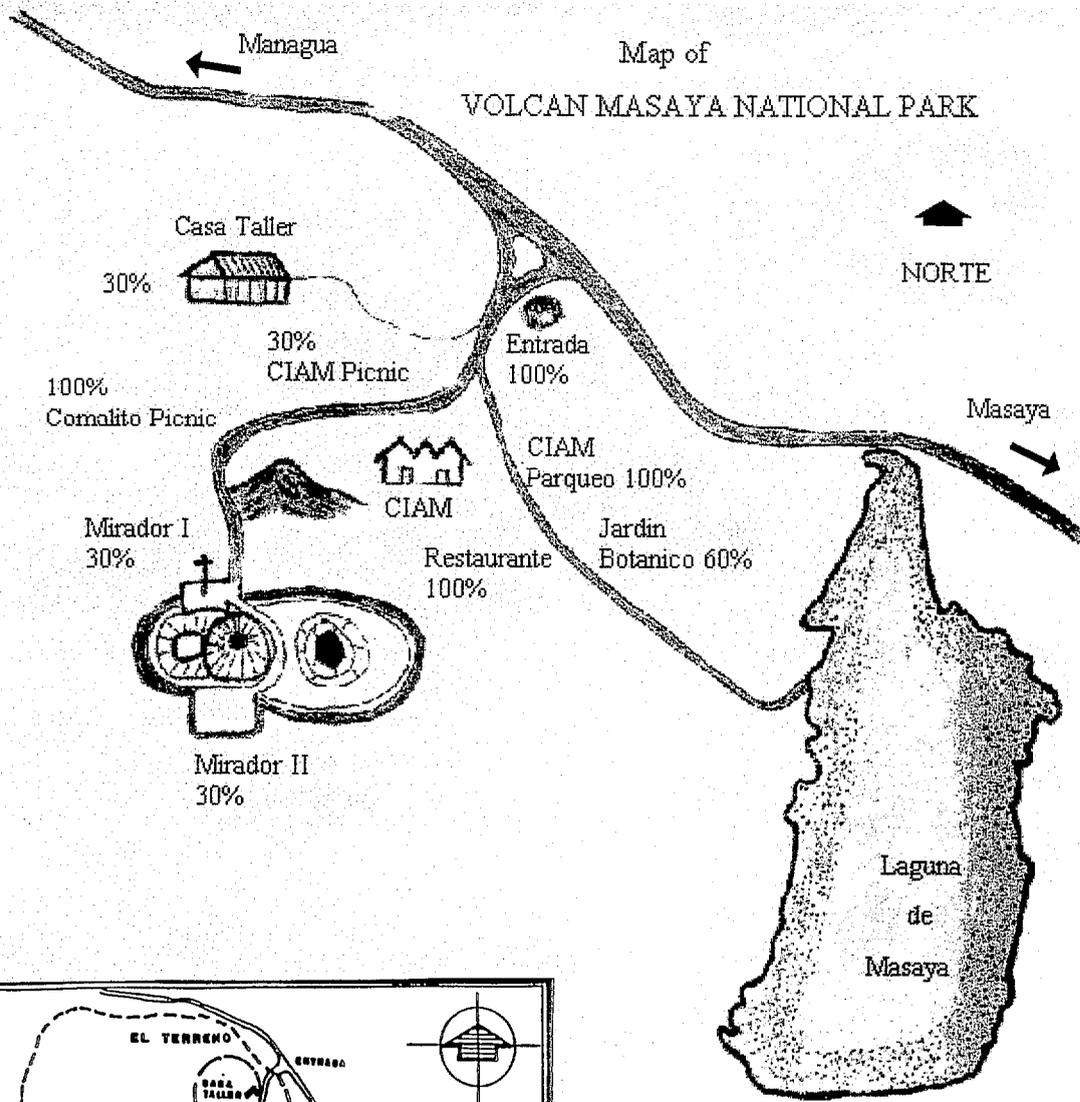
Results Highlights:

- Alejandro Bolaños was contracted by TR&D to conduct preliminary stakeholder analysis and participation in development of management plans for Volcán Masaya National Park. The Volcán Masaya National Park buffer zone is particularly complex; approximately 60 stakeholders were identified to be taken into account in future planning sessions. Initial meetings with Alejandro Bolaños and the MARENA team resulted in the decision to focus efforts on on priority stakeholders, including independent tour operators and buffer zone inhabitants.
- Studies were conducted with both groups mentioned previously to identify priority needs, interests, and viewpoints regarding current park management strategy. Documents summarizing results were produced and distributed (Appendices 4.4 and 4.5). Results were used to develop the park Three-Year Strategic Plan.

Objective 2.3.3 *In close association with the MARENA Director of Protected Areas, help develop a training plan for the Protected Areas Department and provide the department with short-term technical assistance and training.*

Results Highlights:

- A training plan for 1996 was drafted which targeted MARENA key employees directly involved in protected areas management.
- Three MARENA Protected Area personnel successfully completed training courses in protected areas management outside of Nicaragua (CATIE; Costa Rica; and Colorado State University, U.S.).



**RESULTS OF PROGRAM FOR
INFRASTRUCTURE IMPROVEMENT**

Elaborado por: Ing. Byron Walsh
Tropical Research and Development, Inc.
November 1996

3.0 CONCLUSIONS AND RECOMMENDED FURTHER ACTIONS

3.1 Conclusions and Lessons Learned

In general, the political climate and changes that occurred in MARENA (formerly IRENA) from 1993 to 1996 helped to facilitate policy change and long-term planning. This was particularly evident when IRENA was officially changed to MARENA in 1994. The original focus of the project switched from natural resource management to institutional strengthening as a result of this change. The flexibility of USAID to accommodate this shift in focus was important because it supported one long-term strategic objective of USAID: to strengthen the GON capacity to regulate natural resource use.

One major challenge that natural resource management project personnel faced was to increase community involvement (e.g., NGOs and municipalities) in the development of Volcán Masaya National Park management plans and other project component activities. This effort was successful in some components, such as with development of environmental legislation, but unsuccessful in others, most specifically in protected areas management--Volcán Masaya National Park and EIA Fisheries. The resistance of MARENA to involve community representatives in the development of strategic and operative plans for protected areas made it difficult to promote private enterprise mechanisms, such as endowments, for improving the financial status of protected areas. At the time, TR&D felt that to force the issue would have been inappropriate and ineffective. However, with a new administration in 1997, it is hoped that the issue may be more openly discussed and solutions proposed that are acceptable to all stakeholders.

3.2 Recommended Further Actions

3.2.1 Institutional Change and Development

Vision, Mission, Functions, and Organizational Structure

Great strides in organizational structure have been made under this contract. The next logical step, as outlined by the Planning Department, is to develop a VMFO for each of the 28 projects and integrate projects into MARENA's organizational structure. This exercise would reveal those projects that are inconsistent with the institutional VMFO. A strategic plan would be developed for those remaining functions that are not consistent with the institutional VMFO. This would imply that some functions, or even entire projects, should be transferred to a more appropriate managing entity (to an NGO or other public institution, for example).

Develop Manuals for Functions, Norms, and Procedures

Relating institutional objectives, functions, activities, and services to job descriptions (desired situation), rather than relating them to individuals (current situation) is the next logical step in the

process of organizational development. A method for communicating to employees their roles with respect to other roles and to institutional goals should also be designed.

Develop Methods for Disseminating Information

A short written presentation for distribution regarding the purpose and how it should be used should be designed. Of particular importance is that all MARENA employees be demonstrably knowledgeable of the public services that MARENA is responsible for providing. Those employees who have direct contact with the public, including receptionists, security guards, telephone operators, and territorial delegations, should be priority targets.

Training Plan Development

Under the Caldera Administration, the training plan was conceived to be an institutional strengthening training plan linked to first priority objectives listed in the project SOW. Client satisfaction of services was the primary goal of this plan. However, the Gutierrez Administration requested a training plan to address continuing education concerns, where improving individual employee's technical skills is the major objective. Both types of training are needed and important.

The methods for achieving an institutional strengthening training plan were discussed with MARENA's Planning Department and with the Dirección Superior in November of 1995. These methods are outlined below and recommended for further action:

1. Establish baseline training needs.
2. Form focus groups from within the Ministry to determine which functions and services are not working well and identify who is affected by them. The public, or civil society, is considered to be the client who is affected by services that are not working well.
3. Determine which functions that provide priority public services could be improved with training (versus procurements). From this, derive a training plan with indicators for monitoring results.
4. Train the MARENA focus groups to form similar focus groups with major client groups identified in #2.
5. Have client groups review the functions that MARENA is charged with and what public services they consider to not be working well.
6. Compare the functions not working well identified in #5 with those in #2.
7. Generate a strategic and operational institutional strengthening training plan with indicators for monitoring.
8. After implementing of the training plan, monitor and evaluate results against baseline data.

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3.2.2 Natural Resource Legislation, Policy, and Strategy

Legislative Development

Within the area of legislative development, future USAID assistance efforts should focus on continuing to support MARENA and NGO efforts to develop and pass biodiversity legislation. TR&D assistance provided for the development of a draft biodiversity law. However, this draft biodiversity law is still within initial stages. Because biodiversity legislation encompasses numerous facets of environmental policy (e.g., protected areas management, environmental impact, environmental incentives, access to genetic resources, intellectual property law), development of this law affect many interests and institutions. Therefore, it is imperative to continue scheduling seminars and conferences among all government institutions, NGOs, and other stakeholders, to achieve consensus prior to introducing this law into the National Assembly.

With regard environmental legislation areas, it would be wise to wait and see where the new GON and National Assembly wish to focus their efforts. When this becomes clear, USAID should select two to three additional areas for development of environmental legislation.

Enforcement of Natural Resource/Environmental Legislation

Because legislation is most effective when enforced, future USAID assistance should also focus on strengthening the GON's ability to enforce environmental legislation. Assistance efforts must be targeted toward strengthening those GON institutions charged with enforcing environmental legislation.

Articles 9 and 10 of the General Environmental Law call for the establishment of a National Environmental Prosecutor's Office. Recently, TR&D Legal Consultant Dr.Ivan Escobar Fornos developed a Procedures Manual for the Office of Environmental Prosecutor. As soon as the future GON designates an Environmental Prosecutor, additional assistance should be provided to strengthen this office as an institution. Other avenues for strengthening legislative enforcement include training judges and municipal authorities in applying environmental legislation.

Education

Finally, future USAID assistance efforts should also promote greater awareness of environmental legislation through education and information dissemination. The GreenCOM environmental education project could lead in this effort. As with legislation enforcement, heightened awareness of legislation should lead to increased compliance. Therefore, efforts should be made to hold seminars and disseminate information regarding environmental legislation and regulation through local NGOs, municipal governments, secondary schools, and universities.

3.2.3 Protected Areas - Volcán Masaya National Park

Developing Management Plans

The 3-year strategic plan has been developed for the park, but the operative plan still needs to be finalized and implemented. This should be a priority for support by USAID in its continuing program of assistance to MARENA in Protected Areas.

Management Improvement through Increased Participation by Local Government, NGOs, and other Private Stakeholders

More effort should be made to involve local NGOs in environmental education efforts and to increase community participation in operative plan implementation. This has been a great weakness of the Volcán Masaya National Park program, primarily due to resistance of park management and MARENA in this area. Perhaps with the change in government, USAID and MARENA will be able to strengthen this weak link.

Infrastructure Development

TR&D recommends USAID focus on supporting repairs and upgrading of exhibits in the Visitor's Center. Ms. Jerez-McPherson's and Mr. Barborak's reports provide specific recommendations for improving the exhibits for environmental education. The current focus on improving the look of the park is important, but environmental education improvement has been neglected in the process.

3.2.4 EIA Fisheries Program

TR&D recommends that CIRH assist with developing short- and long-term strategic and operative plans for sustainable management of this resource. Much has been accomplished in gathering important basic scientific data on the resource and in data management, but knowledge of how to put this information to good use is still lacking within managing institutions. In addition, CIRH should work directly with coastal NGOs and local government bodies to educate and inform the public of sustainable management concepts for marine resources.

3.2.5 Convention on International Trade of Endangered Species of Flora and Fauna (CITES)

Training, Evaluation and Monitoring

It is important to continue with efforts to improve technical capacity and monitoring of breeders and exporters in amphibian and reptile captive husbandry. Too often, producers capture young,

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wild amphibians and reptiles for breeding and export purposes when they are unsuccessful with captive breeding efforts.

Legislation

The next important step for the government is to draft regulations for commercial wildlife use and export that conform to CITES guidelines. Regulations of this type could be included in the Biodiversity Law now being developed.

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Appendix 4.1a

Original Contract Statement of Work (October 1993)

SECTION C

I. Background

Nicaragua has invested little in resource conservation. Between 1960 and 1980, Nicaragua experienced the highest deforestation rate in Central America. During the political upheaval of the 1980's, deforestation slowed, but the decade witnessed the destruction of much of the country's physical infrastructure, the diminution of access to capital and product markets, and an impoverishment of all fields of technical and administrative expertise. Inappropriate resource pricing, nationalization of forests and fisheries, and other policies of the former government eroded incentives to sustainable resource-use practices. Returning refugees are now accelerating the felling of trees and clearing of forests. The new government faces the challenge of developing policies and programs that will motivate the Nicaraguan people to sustain the productivity of the country's natural resource base and provide the foundation for long-term economic and social development.

USAID/Nicaragua has developed its NRMP to assist the Government of Nicaragua (GON) in developing the capacity to manage its natural resources sustainably. The project will provide funding for a U.S.- based contractor to coordinate technical assistance that will speak to the country's need for the strengthening of environmental institutions, policy development and implementation, and education of the Nicaraguan people regarding the need and methods for wise use of natural resources. The project will focus its activities on IRENA, addressing constraints to sound management of natural resources that arise from lack of institutional strength and a resulting scarcity of funding, from underdeveloped natural resource policy, and from a lack of public awareness of the importance of a healthy natural environment and techniques to maintain it.

II. Description

A. Project Goal and Purpose

The goal of the Natural Resources Management (NRM) Project, therefore, is to contribute to the development of environmentally sustainable, broad based economic growth in Nicaragua.

The purpose of the project is to improve the management of renewable natural resources, to protect biological diversity in selected sites, and support sound, environmentally safe pest management practices in Nicaragua.

B. Project Components

The Project will have five closely inter-related and mutually supportive components, (three of which will be implemented under the contract resulting from this RFP. See

Section F.4), which flow from comprehensive institutional, technical, financial, economic and social analyses included as annexes to this Project Paper. These are:

1. Institutional Development and Strengthening, under which the Project will provide technical assistance, training and related support to improve the administrative, management, technical, and accounting capability of the Nicaraguan Institute for Natural Resources and Environment (IRENA) and selected private sector institutions engaged in natural resources conservation practices.
2. Policy Development, Dialogue and Implementation, under which the Project will finance studies, seminars, observation trips and the development and exchange of information to promote, design and implement policies conducive to long-term sound management conservation and environmental protection practices. Policy dialogue will focus mainly on the priority issues of deforestation, watershed management, land use, protected areas, and the uncontrolled use of pesticides.
3. Environmental Education, under which the Project will develop a National Environmental Education Strategy in conjunction with IRENA and other government and non-government entities. The strategy will be tested and refined through workshops and the implementation of selected strategy components, including a multi-media public campaign, teaching materials, and school programs.
4. Protected Areas and Buffer Zones, under which the Project will finance the actual implementation of natural resource management and environmental protection activities in three protected areas and their buffer zones. These areas are:
 - (a) the Miskito Cays Reserve in the North Atlantic Coast and the marine environment including the offshore islands, a biologically rich and diverse area with special importance for sea turtles, shrimp, lobster, and native and migratory birds;
 - (b) the Bosawas Reserve on the northern border with Honduras, which is the largest intact remnant tropical forest north of the Amazon; and
 - (c) the Chococente Wildlife Refuge, which is an important tropical dry forest remnant facing a Pacific Ocean beach used as a nesting area by sea

turtles.

These areas were selected on the basis of three main criteria:

- (a) depth of biodiversity - richness and uniqueness of species and geographical balance;
 - (b) urgency of containing degradation of the area; and
 - (c) likelihood of sustaining project activities, based on expected community involvement, after termination of A.I.D. assistance. Other areas may also meet these criteria, however the availability of resources required limiting it to the above three.
5. Plant Protection and Integrated Pest Management (IPM), under which this Project, in concert with the Private Agricultural Services (PAS) Project, will address several problems related to plant protection and pest management: pesticide residues above tolerable limits on agricultural products, accidental poisoning of pest control workers, environmental contamination by pesticides, and the high cost of the pesticides needed to protect crops and control disease vectors with methods used in Nicaragua.

Statement of Work

A. General

The contractor shall:

1. serve as the principal advisor to IRENA on environmental and policy matters, and in this capacity, work directly with IRENA department heads and advise the Minister of Natural Resources, as required.
2. ~~coordinate project activities with other donor~~ activities to ensure complementarity of efforts.
3. draw on the experience and resources of IRENA and other Nicaraguan institutions to provide and coordinate the services of a wide range of short-term specialists (STSS) during project implementation. The specific expertise and duration of each advisory task will be determined by the contractor and in consultation with IRENA's management.
4. be responsible for determining an appropriate

allocation of STS responsibilities among the three objectives summarized in Section F4 below.

B. Specific Tasks to be Accomplished.

1. help IRENA achieve a strong, efficiently managed institution.

the contractor shall:

- a. Identify training needs for IRENA employees.
- b. Develop criteria for the impartial selection of up to eight candidates to receive funding for the pursuit of master's degrees in the areas identified.
- c. Identify appropriate academic institutions for these individuals to attend.
- d. Provide and coordinate STSs as necessary to provide training in accounting, budgeting, administrative/property management systems, and personnel management.
- e. Provide assistance to help IRENA improve a) collection of fees and fines and b) planning and budgeting in order to improve its financial situation.
- f. Advise on the structure and functions of IRENA.

2. To help IRENA develop a Natural Resources and Environmental Policy and related plans.

the contractor shall:

- a. Advise IRENA on policy and help IRENA develop draft natural resource legislation.
- b. Help IRENA develop overall national Policy and Strategy statements.
- c. Specify institutional responsibilities for carrying out existing and prospective policies in the natural resource sector.
- d. Produce estimates of financial requirements to implement these policies and help IRENA identify funding sources.
- e. Help IRENA set priorities and institute a continuous process to evaluate progress and consider future actions.

- f. Help IRENA draft a new forestry law and forestry regulations with clear allocation of institutional responsibility for implementing the law and regulations, and help IRENA prepare budgets for appropriation of funds to enable implementation. It is expected that the proposed law and regulations will redefine the roles of the government and the private sector with regard to forest ownership and forest management. They will establish a schedule of stumpage prices and user fees and, possibly, a set of economic incentives for private landowners to engage in forest management and reforestation.
- g. Assist IRENA in establishing appropriate fora (or strengthening existing ones) for inter-agency consultation on environmental policies. The contractor will evaluate the existing inter-agency mechanism for policy dialogue and review, which involves CONAMOR (the National Commission on Environment and Land Use) and IRENA. Upon completion of this review, the contractor will recommend whether to continue the existing mechanism or to create a new mechanism.
- h. Prepare draft policy papers for IRENA on deforestation, watershed management, pesticides, protected areas, land use, land tenure and property rights, land taxation, biodiversity conservation, and other pressing policy issues.
- i. Study existing policies and report on how these policies affect Nicaragua's natural resources and environment.
- j. Help IRENA develop and promote adoption of a national system to determine and designate land use capability in accordance with the ecological characteristics of the land. This system is expected to synthesize existing information (with appropriate ground-truthing) necessary for the generation of maps of Nicaragua's diverse ecosystems and land use patterns.
- k. Produce proposals to simplify and streamline current processes for land titling and registration of rural properties. Included will be 1) revisions to existing laws and judicial procedures to guarantee property rights and to enforce contracts; 2) recommendations for changes in land taxation practices so that tax rates reflect land use capability and actual land use; and 3) recommendations of mechanisms for more effective tax collection.

- l. Prepare a proposal for a national project in watershed management for presentation for funding to other international donors that may be interested in assisting Nicaragua in the natural resources area.
- m. Analyze and help IRENA improve its plan for the national system of protected areas. Recommend the type of management each type of unit (e.g., national park, wildlife reserve, historic site) should receive. Help IRENA determine whether existing units should be expanded and whether new units should be designated. Project the level of management each area can realistically expect to receive across a time horizon of the next ten years. Show the costs of management, anticipated revenues from user fees, and shortfall between income and costs of management.
- n. Help IRENA plan and carry out a workshop to discuss the National Strategy for Environmental Education, to be developed under the Environmental Education component (see below).
- o. Help strengthen the policy development and analysis capability of IRENA and other appropriate GON agencies by arranging policy training through short courses and seminars. It is expected that one- to two-week courses will instruct groups of roughly 15 professionals from appropriate GON agencies in technical subjects related to natural resource policy. One- or two-day seminars will inform general audiences of approximately 50 people on issues in natural resource policy. The following table suggests appropriate training under the Policy component. This tabulation is tentative, indicating only the general type of training anticipated. The contractor and IRENA staff will collaborate to establish the specific training needs and the best allocation of training time:

Policy Output	Training to be Provided
Land Use	Short course(s) in land use capability analysis, remote sensing, etc.; short course(s) in watershed management, hydrology, and soil conservation; seminar(s) on land use capability.
Infrastructure	Short course(s) in environmental impact analysis for infrastructure projects.

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Land Tenure	Short course(s) in land tenure and property rights; seminar(s) on land tenure and property rights.
Land Taxation	Short course(s) in land taxation methods.
Deforestation	Short course(s) in forestry legislation and regulation seminar(s) on forest policy.
Pesticides	Short course(s) in pesticide regulation; seminar(s) on environmental and public health aspects of pesticides.
Protected Areas	Short course(s) in protected area planning.
Environmental Education	Seminar(s) providing an overview of the value of environmental education and basic approaches.

3. Environmental Education

The contractor shall:

- a. Work with IRENA, the Ministry of Education (MOE), and other collaborating institutions (government and non-government) to coordinate the activities of a number of specialists in environmental education. These specialists are to include international STSs--whom the contractor will provide--in (for example) mass media and training, and long-term local specialists hired by IRENA with funds from outside this contract in whose selection the contractor may assist. Their activities will include technical advice, workshops, training courses, pilot programs, and long-term implementation of environmental education programs. As required, the local specialists may remain employees of IRENA following completion of NRMP to continue to coordinate long-term activities arising out of NRMP efforts.
- b. Carry out an assessment of the strengths and weaknesses of the existing environmental education capacity in Nicaragua, and help IRENA develop a National Strategy for Environmental Education that will provide the framework for the inter-related efforts described below.

- c. Design and help IRENA conduct workshops on
- 1) environmental education concepts and techniques;
 - 2) developing environmental programs for mass media; and
 - 3) didactic materials for environmental education. The didactic materials workshop(s) will train participants in the techniques needed for developing successful learning materials for formal, non-formal, and informal audiences. The emphasis will be on complementing existing textbooks with environmental education techniques and materials.
- d. Design and implement with IRENA the following pilot projects:
- 1) a mass media program that will develop and test materials to discover effective ways to reach the Nicaraguan public with environmental messages. Although envisioned as a pilot program, many of the materials will have a useful life beyond the end of the project.
 - 2) a school visitation program that will test and compare approaches to involving school children with the environment. For example, is it more effective to bring environmental awareness and actions into the classroom or to take the school children to visit the environment? The related research program will help decide which approach leads to more effective and lasting changes in environmental attitudes and behavior.
- e. Explore with IRENA the possibilities for cooperation in this component with the United States Peace Corps.

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Appendix 4.1b

First Modification (Amendment #4, May 1995) to Contract Statement of Work

Contract No. 524-0314-C-00-4003-00

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B. Specific Tasks to be Accomplished

1. As a first priority, help MARENA to achieve a strong, efficiently managed institution, the Contractor shall advise and assist in:
 - a. **Organizational Change and Development.** Definition and review of vision, mission, functions and organizational structure for the institution as a whole and for each of its units. Develop manuals for functions, norms and procedures as well as professional profiles for positions defined in the organizational structure. Develop methods for disseminating this information in ways that are understandable and useful to all employees.
 - b. **Institutional Building and Strengthening.** Development of a Human Resources Division. Identification of specific and priority training needs, provision and coordination of assistance to meet those needs and, monitoring and evaluation of institutional impact of training efforts.
 - c. **Design and Implementation of Management Systems.** Modernization of computer systems aimed at developing specific data bases for improving administrative, financial and personnel management as well as management of technical information. Provide short-term technical assistance in developing and implementing a sustainable Geographic Information Systems (GIS).
2. As a second priority, and in response to a specific request by MARENA, assist institutional efforts to develop natural resources and environmental policy and related plans. As need be, the contractor shall support MARENA in coordination with GON and PVOs efforts, in the following areas:
 - a. **Natural Resource Legislation.** Help MARENA draft an organic law. Assist MARENA and the National Assembly in on-going efforts to draft natural resource and environmental legislation and regulations, specifically in the areas of forestry, the environment, fisheries, protected areas, water resources, wildlife, biodiversity and others. Assist MARENA in the upward harmonization of environmental laws.
 - b. **Natural Resource Policy and Strategy.** Study existing policies and report on how these policies

- affect Nicaragua's natural resources and the environment. Assist MARENA in developing overall national policy and strategy statements (eg. development of a strategy for the biological corredores), specifying institutional responsibilities for carrying out existing and prospective policies in the natural resource sector.
- c. **Protected Areas.** Assist MARENA in improving its plan for the national system of protected areas. Recommend changes in existing areas (expansions or designation of new areas) and the type of management each unit should receive (e.g., national park, wildlife reserve, historic site).
 - d. **Environmental Education.** As need be, assist MARENA in developing its role in the National Environmental Education Commission.
3. As a third priority, and in response to a specific request by MARENA, assist in the following areas:
- a. **Impact Evaluation.** Help MARENA in developing mechanisms to evaluate progress, impact and to recommend future actions regarding environmental policy and related plans.
 - b. **Land Use Capabilities.** Help MARENA develop and promote the adoption of a national system to determine and designate land use capability in accordance with the ecological characteristics of the land.
 - c. **Watershed Management Proposal.** Along with the Dirección General del Ambiente and the Dirección Forestal of MARENA, monitor the preparation of a proposal for a national project in watershed management, utilizing existing documents and information which will be presented for funding to other international donors interested in assisting in its implementation. The proposal would be prepared by a local, short-term specialist hired by MARENA, with funds from outside this contract, and whose selection the contractor may assist.

Appendix 4.1c

**Third (and final) Modification (Amendment #8, January 1996) to
Contract Statement of Work**

- b. Section C, Statement of Work, is deleted and replaced with the following:

Project Coordination, Programming, and Reporting:

The Nicaragua Local Representative will serve as the point of contact and coordinator of tasks associated with the organizational transformation of MARENA. With assistance from the Contractor's home office, the individual will be responsible for the coordination and planning of all project activities with senior MARENA management and the USAID Nicaragua Project Officer. These activities include preparation of focused and detailed work plans for TR&D technical assistance activities contracting, coordination of long- and short-term technical assistance, maintaining effective working relationships with all host country organizations that are involved in the project, preparing quarterly and other reports as required, and applying management and administrative skills to ensure effective implementation of the project. The Contractor will be responsible for the development of quarterly work plans that meet USAID project objectives.

Provision of a Natural Resources Management Coordinator:

The Contractor will immediately begin efforts to identify and recruit a Natural Resources Management (NRM) Coordinator for its Nicaragua field team, to serve for the duration of the contract. This person will be a resident of Nicaragua and will have formal training and education in natural resources management and/or protected areas management. The individual will be responsible for assisting in the development of scopes of work for technical assistance related to natural resources management and will contribute to the TR&D work plan. The individual will be charged with supervising tasks related to protected areas and natural resources management, for assisting in the selection of qualified consultants, and for ensuring that products developed during the consultancies meet MARENA's and USAID's needs, meet the Scope of Work (SOW) guidelines, and fulfill requirements of the quarterly work plan.

Designation of MARENA Counterparts:

In order to facilitate the completion of specific tasks assigned under this scope of work, MARENA will designate a point of contact for the Contractor's Nicaragua Local Representative.

Communications:

Between USAID and the Contractor: The Nicaragua Local Representative will attend weekly update meetings with the USAID Project Officer. In the meeting she/he will inform project officer of current activities, progress on tasks, and issues that have developed which will influence task completion.

Between MARENA and the Contractor: The Contractor's professional field team will have weekly meetings with their MARENA counterparts to report task progress and to receive input for the development of work plans.

Specific Tasks to be Accomplished:

1. As a first priority, assist MARENA to achieve a strong, efficiently managed institution, the Contractor shall advise and assist in:
 - a. **Organizational Change and Development.** Definition and review of vision, mission, functions, and organizational structure for the institution as a whole and for each of its units (ie. Direccion General). Development of manuals for functions, norms and procedures as well as professional profiles for positions defined in the organizational structure. Develop methods for disseminating this information in ways that are understandable and useful to all employees. Possible training associated with this task may include workshops to reinforce and motivate employees to work towards achieving the Ministry's vision, mission, and functions.
 - b. **Institutional Building and Strengthening.** Development of a Human Resources Division. Development of a detailed training plan based on identification of specific and priority training needs, provision, and coordination of assistance to meet those needs, and monitoring and evaluation of institutional impact of training efforts. Assistance in developing and implementing strategies for improved interagency communication.
2. As a second priority, and in response to a specific request by MARENA, the Contractor will assist MARENA's institutional efforts to develop natural resources and environmental policy and related plans. As need be, the Contractor shall support Government of Nicaragua (GON) and Private Voluntary Organization (PVO) efforts,

in coordination with MARENA, in the following areas:

- a. **Natural Resource Legislation.** Assist MARENA to draft an organic law. Assist MARENA and the National Assembly in on-going efforts to draft natural resource and environmental legislation including a new protected areas law. Provide support to PVOs to develop regulations for legal recognition of existing indigenous communal land claims. Assist in preparing legislation in other sectors such as forestry, the environment, fisheries, and others as requested. Assist MARENA in the revision of environmental laws to meet requirements at the regional level.
- b. **Natural Resources Policy and Strategy.** Study existing policies and report on how these policies affect Nicaragua's natural resources and the environment. Assist MARENA in developing overall national policy and strategy statements (eg. development of a strategy for the biological corridors), specifying institutional responsibilities for carrying out existing and prospective policies in the natural resource sector. Assist MARENA in defining institutional responsibilities for natural resources management among Ministries, identify overlaps in responsibility and provide recommendations and technical assistance as requested to resolve outstanding policy issues. Assist in developing and implementing strategies for improved interagency communication.
- c. **Protected Areas.** Assist MARENA in developing and improving its overall plan for the management of the national system of protected areas. Assist in the improvement and reinforcement of management plans for Volcán Masaya and subsequently in the development of management plans for other priority protected areas. Assist MARENA in improving management and operations of protected areas through increased participation by local government, Non-Governmental Organizations (NGOs) and other partners, defining management focus of units (eg. national park, wildlife reserve, historic site), and assisting in the development of plans for the sustainable financing and participation by other interests in the management of protected areas. In close association with the MARENA Director of Protected Areas, assist in the development of a training plan for the Protected

Areas Department and provide the Department with short-term technical assistance and training. Provide training and short term technical assistance to MARENA Convention on the International Trade in Endangered Species (CITES) Unit to improve monitoring capability and compliance for use in management decision making processes.

3. As a third priority, and in response to a specific request by MARENA, assist in the following areas:
 - a. **Land Use Capabilities.** Through a subcontract to Tropical Science Center and at the specific request of MARENA, provide assistance to the Division of Forestry in the development and implementation of a land evaluation and classification system making use of potential links with the existing Geographic Information Systems (GIS) for the storage and use of data gathered in management decisions.
 - b. **Impact Evaluation.** Assist MARENA in developing the capability to evaluate impact assessment, design, and evaluation of mitigation efforts and recommend future actions regarding environmental impact policy.
 - c. **Protected Areas Education.** As requested by MARENA, assist in the enforcement of newly created environmental laws at the national level through training courses such as a training the trainers course(s) for the technical staff of the General Direction of Protected Areas. The training the trainers course(s) can be designed to focus on environmental awareness, environmental laws and regulations, training techniques, and enforcement techniques.
 - d. **GIS Training and Support.** At the request of MARENA, provide short-term technical assistance in developing and implementing training for the management of technical information employing a GIS at the national level.
 - e. **Watershed Management Assistance.** On an as needed basis, provide guidance and oversight to MARENA in the establishment of a national watershed management system. As requested by MARENA provide support to link watershed data to the existing GIS for use in management decisions.

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Nicaragua Natural Resource Management Project

Institutional Change and Development Seminars, Training and Other Activities			
Activity	Dates	Participants	Results
1. Workshop to develop MARENA Work Plan	March 16-18, 1994	Approximately 43 MARENA employees	MARENA 1994 Work Plan
2. Workshop to develop MARENA Budget	April 21-23, 1994	MARENA employees of Finance Dept. and Planning Dept.	MARENA Budget and Mechanisms for Operation
3. Workshop to develop MARENA Operative Plans	June 3, 1994 and June 21-22, 1994	Approximately 42 MARENA employees	MARENA Operative Plan and Budget for 1994
4. Training for the Trainers	July 13-14, 1994	Approximately 18 MARENA employees with PAA-NIC and PAF-NIC	Monitoring and Evaluation System for Natural Resource Sustainable Management Projects
5. Theory and Application of the "Enfoque del Marco Logico (EML)"	October 19-20, 1994	Approximately 41 MARENA Territorial Delegates	Informe: Theory and Application of the EML for Development of the Annual Operative Plan

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Nicaragua Natural Resource Management Project

Institutional Change and Development Seminars, Training and Other Activities			
Activity	Dates	Participants	Results
6. Seminar for Project Directors	November 15-16, 1994	Approximately 42 MARENA Territory Delegates	Trained in methodology for Operative Plan Development
7. Workshop for Development of Annual Operative Plans	Jan.31-Feb.1, 1995	41 MARENA Territory Delegates	41 employees trained and operative plans drafted
8. Workshop for Institutional Strengthening	February 24-25, 1995	MARENA top level and mid-level participants	Materials and preliminary results with draft organizational structure of MARENA
9. Workshop for Completing Structure and Functions of MARENA	June 7, 1995	Approximately 29 MARENA employees	Materials on the workshop
10. Workshop for Organization of MARENA's General Division of Planning	June 9, 1995	Approximately 29 MARENA employees	Draft organization of Human Resources Division

Nicaragua Natural Resource Management Project

Institutional Change and Development Seminars, Training and Other Activities			
Activity	Dates	Participants	Results
11. Workshop for initiating training process for Territory Delegates	July 6-7, 1995	Approximately 43 MARENA employees	Workshop materials
12. Culture and Service: Towards an Excellent Attention to the Public	August 5, 1995	Approximately 38 MARENA lower level employees	All trained in public service concepts and methodology
13. Montelimar II Seminar: MARENA Presentation to Mayors, Bank Presidents, other Private and Public Sector institutions	August 11-12, 1995	Approximately 41 representatives from MEDE, INIFOM, BANIC, COSEP, BANCENTRO, Mayors, journalists and others	Presentation of Environmental Agenda of MARENA

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Nicaragua Natural Resource Management Project

Institutional Change and Development Seminars, Training and Other Activities			
Activity	Dates	Participants	Results
<p>Series of transition workshops listed below (#14 - 27)</p> <p>Facilitated by Alejandro Bolaños</p>	<p>March 29 to June 17, 1996</p>	<p>MARENA management level employees, Division of Protected Areas, the PNVM team and park employees</p>	<p>1 - Monitoring, supervision and completion of Institutional Strategic and Operative Plans for 1996</p> <p>2 - Cohesion of the PNVM Team and Division of Protected Areas (DGAPPF)</p> <p>3 - Develop a vision/strategic plan, detailed operative plan and monitoring/supervision plan for PNVM</p> <p>4 - Monitoring, supervision and completion of PNVM Strategic and Operative plans for 1996</p>
<p>14. Methodology for Directors and Facilitators</p>	<p>March 29, 1996</p>	<p>16 participants MARENA and 2 TR&D</p>	<p>Trained in methodology for organizational change and development</p>
<p>15. Development of Mission, Vision and Objectives for Planning Division</p>	<p>April 12, 1996</p>	<p>(missing information)</p>	<p>Trained in methodology for organizational change and development</p>

Nicaragua Natural Resource Management Project

Institutional Change and Development Seminars, Training and Other Activities			
Activity	Dates	Participants	Results
16. Development of Mission, Vision and Objectives for Forestry Division	April 16, 1996	16 participants MARENA and 2 TR&D	Trained in methodology for organizational change and development
17. Development of Mission, Vision and Objectives for General Division of the Environment	April 17, 1996	17 participants MARENA and 2 TR&D	Trained in methodology for organizational change and development
18. Development of Mission, Vision and Objectives for Division of Finance Administration	April 18, 1996	20 participants MARENA and 2 TR&D	Trained in methodology for organizational change and development
19. Development of Mission, Vision and Objectives for General Division of Territorial Coordination	April 19, 1996	16 participants MARENA and 2 TR&D	Trained in methodology for organizational change and development
20. Training for Facilitators on MARENA Structure (I)	April 30, 1996	11 participants MARENA and 2 TR&D	Training: Development of Vision, Mission and Functions

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Nicaragua Natural Resource Management Project

Institutional Change and Development Seminars, Training and Other Activities			
Activity	Dates	Participants	Results
21. Training for Facilitators on MARENA Structure (II)	May 7, 1996	10 participants MARENA and 2 TR&D	Training: Development of Vision, Mission and Functions
22. Ideal Structure vs. Real Structure	May 13 and 14, 1996	27 participants MARENA and 2 TR&D	Development of Vision, Mission and Functions
23. Development of Mission, vision and Objectives for Division of Protected Areas, Fish and Wildlife	May 23, 1996	36 participants MARENA and 2 TR&D	Development of Vision, Mission and Functions
24. Participative Diagnostic for Projects	June 12, 1996	26 participants MARENA and 2 TR&D	Development of Vision, Mission and Functions
25. Drafting of Functions for the Division of the Environment	June 13, 1996	18 participants MARENA and 2 TR&D	Development of Vision, Mission and Functions

Nicaragua Natural Resource Management Project

Institutional Change and Development Seminars, Training and Other Activities			
Activity	Dates	Participants	Results
26. Structural Design of MARENA by Division	June 17, 1996	9 participants MARENA and 2 TR&D	Development of Vision, Mission and Functions

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Nicaragua Natural Resource Management Project

Natural Resource Legislation, Policy and Strategy Seminars, Training and Other Activities			
Activity	Dates	Participants	Results
1. Seminar on Draft Legal Instruments Establishing MARENA's Institutional Foundation.	August 17, 1995	Approximately 35-40 participants from all divisions within MARENA.	Presentation of Draft Ley Organica, El Reglamento Interno del MARENA, Draft Public Sector Environmental Law, and the Plan Annual de la Unidad de Normas y Regulaciones. Formal comments received from key MARENA officials regarding these critical draft legal instruments.
2.. Government/Industry-Wide Conference on Draft Fisheries Legislation pending in National Assembly.	June 10, 1996	Approximately 50 participants from MARENA, MEDE-Pesca, CIRH, National Assembly, Private Industry, and Local NGO Community. Three observers from Environmental Ministry of El Salvador.	Increased dialogue among all parties (govt. and industry) with an interest in draft fisheries legislation. Development of technical comments and analysis by international expert panel regarding implementation of proposed legislation.

Nicaragua Natural Resource Management Project

Natural Resource Legislation, Policy and Strategy Seminars, Training and Other Activities			
Activity	Dates	Participants	Results
3. Capacity Building Seminar on Draft Toxics/Pesticide Control Law currently pending in National Assembly.	June 18, 1996	Approximately 25 participants from MARENA'S Division of Toxic Substances and Division General Del Ambiente.	Article by article analysis of draft toxics/pesticides law. Comments and recommendations prepared by MARENA and TR&D for govt./industry-wide conference on draft law.
4. Regulation Drafting Seminar for the General Environmental Law.	June 26, 1996	Approximately 15-20 participants from Technical Team involved in drafting regulations for the General Environmental Law.	Assistance in drafting environmental regulations provided to Technical Team by lawyers from USAID Env. Law Program.
5. Conference on Regulations for the General Environmental Law.	July 10, 1996	Approximately 50 participants from MARENA, Office of the Presidency, CCAD, and local NGO community.	NGO community and all major divisions within MARENA provided with opportunity to make recommendations on regulations drafted by Technical Team. Changes to regulations adopted based on recommendations of participants.

Nicaragua Natural Resource Management Project

Natural Resource Legislation, Policy and Strategy Seminars, Training and Other Activities			
Activity	Dates	Participants	Results
6. Government/Industry-Wide Conference on Draft Toxics/Pesticides Control Law pending in National Assembly.	July 31, 1996	Approximately 35 participants from MARENA, MAG, MINSA, MCT, National Assembly, Private Industry, and USEPA.	Increased dialogue among all interested parties to the draft law. Formal observations and analysis of draft law presented by international expert panel to all conference participants.
7. Capacity Building Seminar for Law Students and Municipal Officials of Leon on the General Environmental Law and its Regulations.	August 10, 1996 Restaurante Cana Brava Leon, Nicaragua	Approximately 60 participants from UNAN-Leon Law School (students and faculty), and the Office of the Alcaldia de Leon.	Heightened understanding of General Environmental Law and its regulations.

Nicaragua Natural Resource Management Project

Natural Resource Legislation, Policy and Strategy Seminars, Training and Other Activities			
Activity	Dates	Participants	Results
8. Inaugural Meeting of the Comision Nacional Del Ambiente (CONAM).	Sept. 18, 1996	Approximately 85 participants from numerous institutions of the Nicaraguan government, NGO community, and international donor organizations.	Fulfillment of mandate contained in Title II, Chapter I of General Environmental Law that calls for the establishment of the CONAM. Increased cooperation and coordination among government institutions and NGOs on all environmental policy matters. Convenio of Cooperation signed between MARENA, the Procurador General, and the Controlor of the Republica.
9. 1st Central American Regional Meeting on Environmental Legislation and Enforcement. Sponsored and Organized jointly with CCAD/PROARCA from Guatemala.	Sept. 30 - Oct. 2, 1996	Approximately 50-60 participants from Environmental Ministries of all Central American countries, Mexico, and the United States. Additional participants from CCAD, USAID, Environmental Law Institute, Center For Int. Environmental Law, Nicaraguan National Assembly, and local NGO community.	Enhanced regional cooperation and coordination in development of environmental policy and legislation.

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Nicaragua Natural Resource Management Project

Natural Resource Legislation, Policy and Strategy Seminars, Training and Other Activities			
Activity	Dates	Participants	Results
10. Inaugural Meeting of National Biodiversity Commission.	Oct. 3, 1996	Approximately 25 participants from MARENA, the local NGO Community, and University Community.	Technical Advice on drafting Biodiversity Legislation provided by lawyers from USAID Env. Law program, and lawyer from Instituto AMBIO of Costa Rica. Formation of Technical Team charged with drafting Biodiversity legislation. Establishment of workplan and schedule for developing draft law to present to National Assembly.
11. Seminar on Detailed Regulation for Protected Areas Section of the GEL.	Oct. 25, 1996	Approximately 25 participants from MARENA, Local NGO Community, World Bank GEF Project, INbio of Costa Rica, and USAID.	Final draft of detailed Protected Areas Regulation developed with comments and input from all participants.

Nicaragua Natural Resource Management Project

Natural Resource Legislation, Policy and Strategy Seminars, Training and Other Activities			
Activity	Dates	Participants	Results
12. Seminar on Biodiversity Legislation and Intellectual Property Law.	Oct. 30, 1996	Approximately 25 participants from MARENA, MEDE Patent Division, and Local NGO Community.	Heightened understanding of the role of intellectual property law within efforts to adopt national biodiversity legislation that fully implements the International Convention on Biodiversity.

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Nicaragua Natural Resource Management Project

Protected Areas - Volcán Masaya National Park Seminars, Training and Other Activities			
Activity	Date	Participants	Results
1. Workshop: Potencial Inversión Areas Protegidas	May 1994	TR&D, MARENA and Nicaraguan Construction Firms	Document: Licitación Obras-Rehabilitacion del PNVM Ing. Jorge Hayn and MARENA
2. Workshop: Un día con Tortuga Marina	July 1994 Masaya	80 Participants from MARENA, NGOs, Alcaldías, UNA, Policía Nacional y Empresas Privadas	Document: 1er. Encuentro - Un Día con la Tortuga Marina Ing. Gloria Urbina y Ing. Francisco Estrada
3. Lineamiento, Manejo, Reserva BOSAWAS and Areas Amortiguamiento.	Nov/1994 Selva Negra, Matagalpa	USAID, TR&D, MARENA, and TNC	Document: Management of Bosawas and the Buffer Zone

Nicaragua Natural Resource Management Project

Protected Areas - Volcán Masaya National Park Seminars, Training and Other Activities			
Activity	Date	Participants	Results
4. XVIII International Course on Management of Protected Areas - CATIE, Costa Rica	April to June, 1996	Two MARENA personnel	Two MARENA Park Directors trained in management of protected areas
5. Management of Wildlands and Protected Areas - Colorado State University, U.S.	July to Aug/1996	PNVM Park Director - MARENA	PNVM Director trained in protected areas management
6. Intensive English course	April to Sept/1996	Four personnel of MARENA	Four staff DGAPPF attended English classes
7. Workshop: Design Preliminary Plan for PNVM Final Operative Plan Development	February 5, 1996.	USAID, TR&D and MARENA (PNVM Team)	Work plan to develop operative plan Lic. K. Horochowski and James Barborak

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Nicaragua Natural Resource Management Project

Protected Areas - Volcán Masaya National Park Seminars, Training and Other Activities			
Activity	Date	Participants	Results
8. Workshop: Improving Management of Volcán Masaya National Park	March, 1996	MARENA (PNVM Team) and TR&D	Document: Recommendations for Improving Management of Volcán Masaya National Park Dr. J. Barborak (translated from English to Spanish by TR&D)
9. Development of Historical Synopsis of the Volcán Masaya National Park Project.	February 1996	TR&D and MARENA	Summary project History: 1993 to present. Lic. K. Horochowski
10. Seminar: Cronogram Development for the Landscape Architect	March 1996	TR&D and MARENA	Cronograma: Products of work by Landscape Architect

Nicaragua Natural Resource Management Project

Protected Areas - Volcán Masaya National Park Seminars, Training and Other Activities			
Activity	Date	Participants	Results
11. Seminar: TEAM COHESION PNVM	March 1996	TR&D and MARENA (PNVM Team)	PNVM TEAM Cohesion, Vision and Expectations
12. Seminar: Development of Training Plan for DGAPPyF personnel	March 1996	TR&D and MARENA Protected Areas Personnel	Cronogram of Trainings for personnel of Dept. Protected Areas, MARENA
13. Workshop: Plan and Budget PNVM Project.	March-April 1996	TR&D and MARENA counterparts	TR&D Workplan and Budget Narrative 1996
14. Seminar: Brief Description of Green COM/DGAPPF proposal	March 1996	UEP, TR&D, USAID, and Green COM	Proposal reviewed, GreenCOM Environmental Education Program

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Nicaragua Natural Resource Management Project

Protected Areas - Volcán Masaya National Park Seminars, Training and Other Activities			
Activity	Date	Participants	Results
15. Workshop: to Help Counterparts Understand Bidding processes to follow according to USAID regulations	April 1996	UEP, TR&D, and USAID	Procedures and Requirements of the USAID Bidding process
16. Workshop: for decision-making on landscape architecture for preliminary site plans.	June 5 and 6, 1996	TR&D, MARENA, and USAID	Green Booklet of site Design Alternatives for PNVM by Jonni Todd and Ramiro Villalvazo
18. Geological Assessment of PNVM	August, 1996	TR&D, INETER and MARENA	Document: Assessment and Recommendations Regarding Geologic Hazards, Infrastructure Options, And Interpretative Resources At The Volcán Masaya National Park in Nicaragua, C.A. by Dr. D.R. Jerez MacPherson.

Nicaragua Natural Resource Management Project

Protected Areas - Volcán Masaya National Park Seminars, Training and Other Activities			
Activity	Date	Participants	Results
19. Study: Land Tenure Within Masaya Caldera	September, 1996.	TR&D and MARENA	Investigación de Tenencia y Ocupación de la Tierra dentro de la caldera Volcanica de Masaya. by Lic. E. Calvo Solano.
20. Consultancy of Tour-Operators.	October, 1996.	TR&D, MARENA and seven Tour Operators	Estudio de opinion sobre Turismo Proyecto Nac. Volcán Masaya by Desmoscopia S.A., San José, Costa Rica.
21. Buffer Zone Municipalities Poll	September 1996.	TR&D, MARENA and PNVM buffer zone inhabitants	Estudios socioeconómico de la zona de amortiguamiento del Parque Nac. Volcán Masaya by M.Sc. Miguel de Castilla Urbina.

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Nicaragua Natural Resource Management Project

Protected Areas - Volcán Masaya National Park Seminars, Training and Other Activities			
Activity	Date	Participants	Results
22. Landscape architect work conducted for development of construction plans for key sites in PNVM	February to Sept., 1996	MARENA PNVM Team, TR&D consultants and USAID PASA assistants	Landscape architecture plans, including alternative plans, for key sites in PNVM (see Appendix 4.5 for detailed listing)
23. Architectural and structural engineering work conducted to develop construction plans for key sites in PNVM	Sept. to November, 1996	MARENA PNVM Team, TR&D consultants	Construction plans for key sites including: *Entrance Construction plan (8 plans) *Structural Diagnostic and Restoring Plan for CIAM and Restaurant.
24. Workshop: Triannual strategic Plan for Volcán Masaya National Park	Oct. 2, 3, 4, 1996	MARENA PNVM team, TR&D	Informe: TALLER de Planificación/Estrategia Parque Nacional Volcán Masaya by Alejandro Bolaños Davis

Nicaragua Natural Resource Management Project

USAID/EIA Fisheries Project Seminars, Training and Other Activities			
Activity	Dates	Participants	Results
1. I Fish Stock Assessment Course	September 19-21, 1995	A total of 11 people from MARENA, Miskito Cays Project, CIRH, and CCC.	Cohort Dynamics, Concept of CPUE, Assessment of Abundance and Biomass
2. EIA Fisheries Kick-off Ceremony	September 22, 1995	A total of 50 people from MARENA, USAID, TR&D, CCC, NGOs, and local communities.	Presentation of the Fisheries Management Plan for the Miskito Coast.
3. Computer Techniques Course	October, 2-3, 1995	A total of 14 people from MARENA, Miskito Cays Project, CIRH, and CCC.	Training in Excel with data input from field sampling
4. Seminar on Shrimp Fisheries	January 18, 1996	A total of 20 people from MARENA, Miskito Cays Project, CIRH, MEDE-PESCA, Universities	Participants trained in Shrimp biology and fisheries
5. Seminar on Lobster and Coral Reef Management	May 3, 1996	A total of 40 people from MARENA, Miskito Cays Project, CIRH, MEDE-PESCA, Universities	Training in lobster biology, International Coral Reef Initiative
6. Seminar on Fisheries Sampling	June 1-2, 1996	Personnel of Miskito Cays Project, a total of 8 participants.	Participants trained in sampling methodology

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USAID/EIA Fisheries Project Seminars, Training and Other Activities			
Activity	Dates	Participants	Results
7. Introduction to Excel Course	July 4-5, 1996	A total of 6 people from MARENA, Miskito Cays Project, and CIRH	Training in statistical analysis and data sheet
8. II Fish Stock Assessment Course	July 17-19, 1996	A total of 12 people from MARENA, Miskito Cays Project, and CIRH	Training in quantitative management and assessment of crustacean and related fisheries in Nicaragua
9. Seminar on Fish Ecology	August 15, 1996	A total of 40 people from MARENA, Miskito Cays Project, CIRH, Universities and NGOs	Training in ecology issues of lagoon fish of the Caribbean coast.

Nicaragua Natural Resource Management Project

Convention on International Trade in Endangered Species of Flora and Fauna (CITES) Seminars, Training and Other Activities			
Activity	Dates	Participants	Results
1. Field training and seminar on Management and Conservation of Crocodilians	March 26 - 31 1996	Approximately 46 participants from MARENA, NGO's and private businesses	Participants trained in crocodile survey and management techniques; summary document produced and distributed
2. Health and nutrition evaluation of licensed amphibian and reptile producers (onsite)	April 1 - 9, 1996	MARENA-CITES personnel and ten licensed producers of captive amphibians and reptiles in Nicaragua	Summary evaluation document produced and distributed
3. Evaluation of husbandry and marketing techniques of licensed amphibian and reptile producers (on-site)	May 24 - June 2 1996	MARENA-CITES personnel and 12 licensed producers of captive amphibians and reptiles in Nicaragua	Summary document with evaluation and recommendations for improvement of reproduction and product marketing produced and distributed

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Nicaragua Natural Resource Management Project

Institutional Change and Development Technical Assistance Inputs			
Name	Position/ Specialty	Dates	Results/Technical Documents Produced
FOREIGN/ EXPATRIATE			
A. Long Term			
Mirette Seireg	Training Specialist/TR&D Representative	(September 19, 1994 to August 30, 1996)	Coordinated project activities for all components and contributed to Institutional Strengthening with coordination of training activities and development and production of 27 technical documents, in collaboration with MARENA counterparts and technical consultants
B. Short Term			
1. Alfredo González	Institutional Planning and Strengthening	13 days June 22 - August 24, 1996	1. Organization of the MARENA Division of Human Resources 2. Development of materials for Seminar on Internal Government Norms and Controls for the Division of Human Resources
	Logical Framework Specialist	Jan.-Feb. 1995	1. Development of materials for workshop to develop MARENA Structure and Functions

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Nicaragua Natural Resource Management Project

Institutional Change and Development Technical Assistance Inputs			
Name	Position/ Specialty	Dates	Results/Technical Documents Produced
2. Augusto Otarola	Evaluation and Monitoring	Nov.-Dec. 1995	1. Development of materials for the MARENA Minister's presentation to international donor groups
3. Erick Allemano	Training Needs Assessment	58 days Feb.1 to April 8, 1994	1. Development of Budget and Operative Plans for 1994 2. System for Monitoring and Evaluation of Projects for Sustainable Natural Resource Management
NATIONAL CONSULTANTS			
A. Short Term			
1. Alejandro Bolaños	Institutional Strengthening Specialist	40 days March - Sept. 1996 8 days Feb. 1996	MARENA Operative Plan for 1996 MARENA Strategic Plan for 1996

Nicaragua Natural Resource Management Project

Institutional Change and Development Technical Assistance Inputs			
Name	Position/ Specialty	Dates	Results/Technical Documents Produced
2. Alfredo Solorzano	Principal Assistant in Institutional Strengthening	20 days May 26 to July 17, 1995	<ol style="list-style-type: none"> 1. Nomina Actual vs. Nomina Ajustada a Escala de Salarios 2. Salary Policy 3. Employee Training Needs 4. MARENA Strategic Plan: Six Lines of Action for 1996 5. MARENA Institutional Operative Plan for 1996 <ol style="list-style-type: none"> 1. Position Manual 2. Analisis de Variaciones: Total de Empleados y Costo de la Nomina 3. Salary Scale
3. Ramón Urroz	Technical Assistant	50 days Aug. 1 to Oct. 1, 1995 13 days June 1 to June 15, 1995	same as above
4. Blanca Varel Merlo	Human Resource Development	41 days July 1 to Sept. 12, 1995	Organization of Human Resource Division of MARENA

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Nicaragua Natural Resource Management Project

Natural Resource Legislation, Policy and Strategy Technical Assistance Inputs			
Name	Position/ Specialty	Dates	Results/Technical Documents Produced
FOREIGN/ EXPATRIATE			
A. Long Term			
Stephen Pelliccia	Legal Advisor and Coordinator	January to Nov. 22, 1996	Coordinated and contributed to: 1. Development of regulations for GEL 2. Development of detailed Draft Regulation for Protected Areas Section of the GEL 3. Development of Draft Biodiversity Law 4. Conference and analysis of Draft Fisheries Law 5. Conferences and analysis of Draft Pesticides and Toxic Substance Control Law 6. Development of procedures manual for Office of the Procuraduria del Ambiente 7. Compilation, analysis, and recommendations regarding all treaties, agreements, and other institutional obligations binding MARENA 8. Drafting of land titles for 13 protected areas

Nicaragua Natural Resource Management Project

Natural Resource Legislation, Policy and Strategy Technical Assistance Inputs			
Name	Position/ Specialty	Dates	Results/Technical Documents Produced
B. Short Term			
1. Eric Dannenmaier	International Environmental Law Expert	28 Days (June - Oct.) 1996	1. Development of regulations for GEL 2. Development of Draft Biodiversity Law 3. Conference and analysis of Draft Fisheries Law
2. Christie Jorge	International Environmental Lawyer	25 Days (June - Oct.) 1996	1. Development of regulations for GEL 2. Development of Draft Biodiversity Law 3. Conference and analysis of Draft Fisheries Law
3. Jorge Cabrera	International Env. Lawyer/ Biodiversity Specialist	30 Days Oct. 1996	Development of Draft Biodiversity Law
4. Alonso Matamoros	Protected Areas Expert	15 Days Aug.- Oct. 1996	Development of detailed regulations for Protected Areas Section of GEL

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Nicaragua Natural Resource Management Project

Natural Resource Legislation, Policy and Strategy Technical Assistance Inputs			
Name	Position/ Specialty	Dates	Results/Technical Documents Produced
5. Vance Hughes	Expert in Pesticides/ Toxics Legislation	6 Days June-July 1996	Conference and analysis of Draft Toxics/Pesticides Control Law
6. Monica Navarro	International Environmental Lawyer	6 Days June-July 1996	Analysis of Draft Toxics/Pesticides Control Law
7. Jorge Varela	International Environmental Lawyer	2 Days July 1996	Conference and analysis of Draft Toxics/Pesticides Control Law
8. Charlotte de Fauntbert	Expert in Marine Law and Fisheries Legislation	5 days June 1996	Conference and analysis of Draft Fisheries Law

Nicaragua Natural Resource Management Project

Natural Resource Legislation, Policy and Strategy Technical Assistance Inputs			
Name	Position/ Specialty	Dates	Results/Technical Documents Produced
9. Miguel Jorge	Expert in Fisheries Management & Legislation	5 days June 1996	Conference and analysis of Draft Fisheries Law
NATIONAL CONSULTANTS			
A. Long Term			
Rosario Saenz	Legal Consultant	March - Nov. 1996	Contributed to: 1. Development of GEL regulations 2. Development of detailed Draft Regulation for the Protected Areas Section of the GEL 3. Development of Draft Biodiversity Law 4. Conference and analysis of Draft Fisheries Law 5. Conferences and Analysis of Draft Toxics/Pesticides Control law 6. Procedures Manual for Office of the Procuraduria del Ambiente 7. Development of detailed Regulation for Auto Emissions Articles of the GEL 8. Presidential Decree establishing a National Commission for the Demarcation of Indigenous Lands on the Atlantic Coast.

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Nicaragua Natural Resource Management Project

Natural Resource Legislation, Policy and Strategy Technical Assistance Inputs			
Name	Position/ Specialty	Dates	Results/Technical Documents Produced
B. Short Term			
1. Dr. Ivan Escobar	Legal Advisor	40 days (6/95 - 8/95) 120 days (8/95 - 1/96) 50 Days (3/96 - 9/96) 20 Days (9/96 - 11/96)	1. Development of Draft Ley Organica and Reglamento Interno For MARENA 2. Development of Draft Public Sector Environmental Law 3. Development of land titles for 13 protected areas 4. Development of GEL regulations 5. Development of Procedures Manual for the Office of the Procuradoria del Ambiente
2. Gustavo Alvarez	Legal Assistant	40 days (6/95 - 8/95)	Development of Draft Ley Organica and Reglamento Interno For MARENA
3. Garcia Cantarero	Research Assistant	140 days (8/95 - 2/96)	Compilation, analysis, and recommendations regarding all agreements, treaties, commissions, and other institutional obligations binding MARENA.
4. Julio Sequeira	Legal Consultant	100 days (10/95 - 2/96)	Analysis and recommendations concerning possible privatization of Banco De Semilla

Nicaragua Natural Resource Management Project

Protected Areas - Volcán Masaya National Park (PNVM) Technical Assistance Inputs			
Name	Position/ Specialty	Dates	Results/Documents Produced
FOREIGN/ EXPATRIATE			
A. Long Term			
1. Katerina Horochwski	Protected Areas Coordinator	125 days January to July 1996	Coordinated and contributed to all activities supporting Volcán Masaya National Park development, including 1995 and 1996 activities and the Three-year Park Strategic Plan
2. Byron Walsh	Protected Areas Coordinator	83 days July to Nov. 15, 1996	Coordinated and contributed to all activities supporting Volcán Masaya National Park development, including 1995 and 1996 activities and the Three-year Park Strategic Plan

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Nicaragua Natural Resource Management Project

Protected Areas - Volcán Masaya National Park (PNVM) Technical Assistance Inputs			
Name	Position/ Specialty	Dates	Results/Documents Produced
B. Short Term			
1. Charles W. Wendt	Environmental Education	56 days March 9 to May 3, 1994	Final Report: The Role of Some Protected Areas in the Context of Environmental Education
2. Joni Todd	Landscape Architect	91 days March to Sept. 1996	Alternative and final site plans for key sites in PNVM

Nicaragua Natural Resource Management Project

Protected Areas - Volcán Masaya National Park (PNVM) Technical Assistance Inputs			
Name	Position/ Specialty	Dates	Results/Documents Produced
3. James Barborak	Protected Areas Planner	11 days Jan. 31 to Feb. 13, 1996	Report: Management Recommendations for the Volcán Masaya National Park
4. Debbie Jerez MacPherson	Volcanologist	12 days August 1996	Document: Assessment and Recommendations Regarding Geologic Hazards at the Volcán Masaya National Park
NATIONAL CONSULTANTS			
A. Short Term			

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Nicaragua Natural Resource Management Project

Protected Areas - Volcán Masaya National Park (PNVM) Technical Assistance Inputs			
Name	Position/ Specialty	Dates	Results/Documents Produced
1. Jorge Hayn	Civil Engineer	12 days Feb.9 to March 29, and 6 days July 15 to Aug.26, 1994	Informe: Licitación de Obras de Rehabilitación de la Infraestructura del PNVM
2. Javier Vega Muñiz	Architect	May to July 1994	Seven architecture plans for PNVM (see Appendix 4.6)
3. Alejandro Peña Rufz	Civil Engineer	45 days April 15 to Sept. 1, 1996	Electrical Plan CIAM (see Appendix 4.6)

Nicaragua Natural Resource Management Project

Protected Areas - Volcán Masaya National Park (PNVM) Technical Assistance Inputs			
Name	Position/ Specialty	Dates	Results/Documents Produced
4. Edgar Calvo Solano	Legal Investigator	38 days May to Oct. 1996	Land tenure investigation document: Investigation of Land Tenency and Occupation Surrounding the Volcano Caldera of Masaya
5. Daniel Vallejos	Topographer	20 days Aug. 1 to Sept. 15, 1996	Seventeen Topo maps for key sites in PNVM
6. Javier Vega Muñiz	Architect	60 days Sept. 4 to Nov. 30, 1996	Construction plans for key sites in PNVM

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Nicaragua Natural Resource Management Project

Protected Areas - Volcán Masaya National Park (PNVM) Technical Assistance Inputs			
Name	Position/ Specialty	Dates	Results/Documents Produced
7. Jorge Boza	Civil/Structural Engineer	60 days Sept. 4 to Nov. 30, 1996	Construction plans for key sites in PNVM, including structural diagnostic of the museum restaurant
8. Alejandro Bolaños Davis	Mediator and Facilitator	30 days May 96 to Oct. 96	Facilitated efforts of PNVM team to develop strategy and operative plan for the park; Three-Year Strategic Plan for PNVM

Nicaragua Natural Resource Management Project

USAID/EIA Fisheries Project Technical Assistance Inputs			
Name	Position/Specialty	Dates	Results/Technical Documents Produced
FOREIGN/EXPATRIATE			
A. Short Term			
1. Vincent Gallucci	Fisheries Stock Assessment	3 days in July 1996 8 days in Nov. 1995	Provided training for MARENA and CIRH personnel in Stock Assessment: Quantitative Methods and Applications for Small-Scale Fisheries
2. Chris Jones	Coastal Development	Oct. 1995 - Sept. 1996	Document: Fishing Vessels and Gear Used in the Miskito Coast Protected Area, Nicaragua
3. Monica Jain	Coastal Management	45 days in May and July 1996	Document (translated to Spanish by TR&D): Information and Options for Management of the Miskito Cays Protected Area in Nicaragua
4. Michael Marshall	Fish Ecology	45 days in May to Sept. 1996	Studies submitted by EIA Fisheries Program to USAID/Nicaragua: Lagoon Fish Surveys in the Miskito Coast Protected Area, Nicaragua. Reef Fish Surveys of the Miskito Cays, within the Miskito Coast Protected Area, Nicaragua.

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Nicaragua Natural Resource Management Project

USAID/EIA Fisheries Project Technical Assistance Inputs			
Name	Position/Specialty	Dates	Results/Technical Documents Produced
NATIONAL			
A. Short Term			
1. Jose Robleto G.	Coordinator EIA/ Translator	July 1995 to Nov. 1996	Coordinated program activities and contributed to production of the following documents: 1. Stock Assessment: Quantitative Methods and Applications for Small-Scale Fisheries 2. Fishing Vessels and Gear Used in the Miskito Coast Protected Area, Nicaragua 3. Information and Options for Management of the Miskito Cays Protected Area in Nicaragua 4. Lagoon Fish Surveys in the Miskito Coast Protected Area, Nicaragua 5. Reef Fish Surveys of the Miskito Cays, within the Miskito Coast Protected Area, Nicaragua

Nicaragua Natural Resource Management Project

Convention on International Trade in Endangered Species of Flora and Fauna (CITES) Technical Assistance Inputs			
Name	Position/ Specialty	Dates	Results/Technical Documents Produced
FOREIGN/ EXPATRIATE			
A. Short Term			
1. James Perran Ross	Crocodilian specialist - IUCN Crocodile Specialist Group	10 days March 26 - April 9, 1996	Crocodilian producers and CITES-MARENA personnel trained in crocodilian conservation and management techniques Document: Management and Conservation of Crocodilians in Nicaragua (April 1996)
2. Fredric L. Frye	Veterinarian - specialist in medicine and pathology of amphibians and reptiles	9 days April 10 - April 18, 1996	All business owners and CITES-MARENA personnel trained in health care for amphibians and reptiles during a one-day seminar Document: Status Report on Reptile and Amphibian Producers in Nicaragua (June 1996)

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Nicaragua Natural Resource Management Project

Convention on International Trade in Endangered Species of Flora and Fauna (CITES) Technical Assistance Inputs			
Name	Position/ Specialty	Dates	Results/Technical Documents Produced
3. Ronald L. Tremper	Director - Center for Reptile and Amphibian Propagation	10 days May 24 - June 2 1996	Evaluation conducted and recommendations submitted for improved management of participant producers and CITES-MARENA program Status Report on Nicaragua Amphibian and Reptile Project (July 1996)

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Institutional Change and Development Documents Produced by TR&D	
Documents	Date Completed/Author
1. MARENA 2000: Planning for Institutional Change in the Nicaraguan Ministry of Environment and Natural Resources	April 1994 Eric Allemano
2. Curso Teoría y Aplicación del Enfoque Marco Lógico, para la elaboración del Plan Operativo Anual	October 1994 Alfredo Gonzalez
3. Sistema de Seguimiento y Evaluación de Proyectos Manejo Sostenible de Recursos Naturales	December 1994 Augusto Otárola
4. Materiales de Presentación del Ministro de MARENA ante Grupo de Donantes	May 1995 Mirette Seireg

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Natural Resource Legislation, Policy and Strategy Documents Produced by TR&D	
Title of Document	Date Completed/Author
1-3. 3 sets of documents necessary to complete liquidation of IRENA:	October 1995/Dr. Ivan Escobar
1. Acta de Junta del Instituto de Recursos Naturales	October 1995/Dr. Ivan Escobar
2. Proyecto de Resolución de la Junta Liquidadora	October 1995/Dr. Ivan Escobar
3. Decreto Presidencial. Disolucion del Instituto Nicaraguense de Recursos Naturales y del Ambiente	October 1995/Dr. Ivan Escobar
4. Analysis and Recommendations Regarding Possible Privatization of the Banco De Semilla	February 1996/Julio Sequeira
5. Compilation, Analysis and Recommendations regarding all Treaties, Agreements, Commissions and Other Institutional Obligations binding MARENA	April 1996/Garcia Cantarero
6. Analysis and Recommendations Regarding Draft Fisheries and Aquaculture Law.	June 1996/Miguel Jorge and Charlotte de Fautbert
7. Models and Analysis of Comparative Law Materials to be used in Drafting Regulations to the General Environmental Law. Volume I	June 1996/Eric Dannenmaier and Christie Jorge
8. Models and Analysis of Comparative Law Materials to be Used in Drafting Regulations to the General Environmental Law. Volume II	July 1996/Eric Dannenmaier and Christie Jorge
9. Comparative Law Materials to be Used in Drafting Regulations for Protected Areas Section of GEL.	June 1996/Alonso Matamoros

CPD

Natural Resource Legislation, Policy and Strategy Documents Produced by TR&D	
Title of Document	Date Completed/Author
10. Comparative Law Materials to be Used in Drafting Regulations to the Environmental Impact Section of the GEL.	June 1996/Eric Dannenmaier
12. Comparative Law Materials to be Used in Drafting Regulations to the Incentives Section of the GEL.	June 1996/Eric Dannenmaier
13. Comparative Law Materials to be Used in Drafting Regulations to the Forestry Section of the GEL.	June 1996/Eric Dannenmaier
14. Comparative Law Materials to be Used in Drafting Regulations to the Water Resources Section of the GEL.	July 1996/Eric Dannenmaier
15. Comparative Law Materials to be Used in Drafting Regulations to the Solid Waste Disposal Sections of the GEL.	July 1996/Vance Hughes and Monica Navarro
16. Comparative Law Materials to be Used in Drafting Regulations to the Noise Pollution Section of the GEL.	July 1996/Vance Hughes
17. Comparative Law Materials to be Used in Drafting Regulations to the Air Pollution Section of the GEL.	July 1996/Vance Hughes
18. Comparative Law Materials to be Used in Drafting Regulations to the Environmental Emergency Section of the GEL.	July 1996/Vance Hughes
19. Comparative Law Materials for Participants of Government/Industry-Wide Conference on Draft Toxic Substances/Pesticides Law.	July 1996/Vance Hughes, Jorge Varela and Monica Navarro
20. Analysis of International Expert Panel Regarding the Draft of The Pesticides and Toxic Substances Control Law	July 1996/Vance Hughes, Jorge Varela and Monica Navarro

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Natural Resource Legislation, Policy and Strategy Documents Produced by TR&D	
Title of Document	Date Completed/Author
21. Background Materials and Analysis for the Development of Comprehensive Biodiversity Legislation.	September 1996/Jorge Cabrera
22. Technical Considerations in Developing a Strategy for Managing Nicaragua's National System of Protected Areas.	October 1996/Alonso Matamoros
23. Analysis and Comparative Law Materials Concerning Private Property Challenge to the Nicaraguan General Environmental Law.	October 1996/Alonso Matamoros
24. Procedures Manual For the Office of the Procuraduria del Ambiente.	October 1996/Dr. Ivan Escobar

OR

Protected Areas - Volcán Masaya National Park Documents Produced by TR&D	
Title of Document	Date Completed/Author
1. Final Report: The Role of Some Protected Areas in the Context of Environmental Education	May 1994/Charles W. Wendt
2. Site Design Alternatives for Landscape Architecture in Parque Nacional Volcán Masaya	June 1996/Joni Todd
3. Recommendations for the Improvement of Management of Volcán Masaya National Park (Translation to Spanish also completed)	July 1996/James R. Barborak
4. Assessment and Recommendations Regarding Geologic Hazards at the Volcán Masaya National Park in Nicaragua, Central America. (Translation to Spanish also completed)	September 1996/Deborah Jerez-McPherson
5. Investigation of Land Tenency and Occupation Surrounding the Volcano Caldera of Masaya	September 1996/Edgar Calvo Solano
6. Opinion Study of Tour Operators in Volcán Masaya National Park	October 1996/Demoscopía, S.A.
7. Informe: Taller de Planificación/Estrategia para el Parque Nacional Volcán Masaya	October 1996/Alejandro Bolaños
8. Bidding/Contract Instructive Document for Usaid in Nicaragua, Including Budget Approximations for Construction	November 1996/Javier Vega Muñoz and Jorge Boza
9. Structural Assessment of the Park Museum (CIAM) and Proposed Restaurant	Jorge Boza

USAID/EIA Fisheries Project Documents Produced by TR&D	
Title of Document	Date Completed/Author
1. Fishing Vessels and Gear Used in the Miskito Coast Protected Area, Nicaragua	October 1995/Chris Jones
2. Información y Opciones para el Manejo del Area Protegida "Cayos Miskitos" en Nicaragua (translation to Spanish from the English)	August 1996/Monica Jain

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Nicaragua Natural Resource Management Project

Convention on International Trade in Endangered Species of Flora and Fauna (CITES) Documents Produced by TR&D	
Title of Document	Date Completed/Author
1. Management and Conservation of Crocodilians in Nicaragua	April 1996/James Perran Ross
2. Status Report on Reptile and Amphibian Producers in Nicaragua	June 1996/Dr. Fredric Frye
3. Status Report on Nicaraguan Amphibian and Reptile Project	July 1996/Ronald Tremper

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Institutional Change and Development Documents Produced by MARENA with TR&D Support	
Documents	Date Completed
1. Plan de Trabajo MARENA 1994	Febrero 1994
2. El Presupuesto de MARENA y sus Mecanismos Operativos - Fase Ejecución	Abril 1994
3. Diseño del Plan de Capacitación del Despacho Ministerial	Mayo 1994
4. Elaboración Planes Operativos y Presupuesto	Junio 1994
5. Materiales: Taller Fortalecimiento Institucional (Visión, Misión y Funciones)	Febrero 1995
6. Resultados Preliminares del Taller de Fortalecimiento Institucional	Marzo 1995
7. Estructura Organizacional del MARENA	Marzo 1995
8. Materiales Taller de Completamiento de Estructura y Funciones	Junio 1995
9. Visión, Misión, Funciones Institucionales y Objetivos y Funciones por Areas Organizativas.	Junio 1995
10. Materiales Taller sobre organización de la División General de Planificación	Junio 1995
11. Conformación de la División de Recursos Humanos	Junio 1995

Institutional Change and Development Documents Produced by MARENA with TR&D Support	
Documents	Date Completed
12. Avance II Conformación División de Recursos Humanos	Julio 1995
13. Materiales Seminario Normas Control Interno Gubernamental División Recursos Humanos	Septiembre 1995
14. Materiales Taller Inicio del Proceso de Capacitación Integral para Delegados Territoriales	Julio 1995
15. Evaluación de Puestos y Metodología	Junio 1995
16. Análisis de Variaciones : Total de Empleados y Costo de la Nomina	Julio 1995
17. Escala de Salarios	Octubre 1995
18. Nomina Actual, Vs Nomina Ajustada a Escala de Salarios	Agosto 1995
19. Políticas Salariales	Septiembre 1995
20. Necesidades de Capacitación por Empleado	Octubre 1995

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Natural Resource Legislation, Policy and Strategy Documents Produced by MARENA with TR&D Support	
Title of Document	Date Completed
1. Draft Organic Law of MARENA	August 1995
2. Regulations to Organic Law of MARENA	August 1995
3. Draft Public Sector Environmental Law	October 1995
4. Inventory of all Goods and Properties Belonging to IRENA necessary for dissolution of IRENA	November 1995
5. Protected Areas Title for Tabla - Sulama	January 1996
6. Map of Protected Area Tabla - Sulama	January 1996
7. Protected Areas Title for Cabo Viejo	January 1996
8. Map of Protected Area Cabo Viejo	January 1996
9. Protected Area Title for Laguna Bismuna	January 1996
10. Map of Protected Area Laguna Bismuna	January 1996
11. Protected Area Title for Laguna de Pahara	January 1996
12. Map of Protected Area Laguna de Pahara	January 1996
13. Protected Areas Title for Yulu	January 1996

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Natural Resource Legislation, Policy and Strategy Documents Produced by MARENA with TR&D Support	
Title of Document	Date Completed
14. Map of Protected Area Yulu	January 1996
15. Protected Areas Title for Kligna	January 1996
16. Map of Protected Area Kligna	January 1996
17. Protected Area Title for Laguna Kukalaya	January 1996
18. Map of Protected Area Laguna Kukalaya	January 1996
19. Protected Area Title for Laguna Layasiksa	January 1996
20. Map of Protected Area Laguna Layasiksa	January 1996
21. Protected Area Title for Alamikamba	January 1996
22. Map of Protected Area Alamikamba	January 1996
23. Protected Area Title for Limbaika	January 1996
24. Map of Protected Area Limbaika	January 1996
25. Protected Area Title for Makantaka	January 1996
26. Map of Protected Area Makantaka	January 1996

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Natural Resource Legislation, Policy and Strategy Documents Produced by MARENA with TR&D Support	
Title of Document	Date Completed
27. Protected Areas Title for Llanos de Karawala	January 1996
28. Map of Protected Area Llanos de Karawala	January 1996
29. Protected Areas Title for Rio Indio-Maiz	January 1996
30. Map of Protected Area Rio Indio-Maiz	January 1996
31. Regulations for GEL	July 1996
32. Convenio of Cooperation between MARENA, Procuraduria General De La Republica, and Contraloria General De La Republica.	September 1996
33. Presidential Decree establishing the National Commission for the Demarcation of Indigenous Lands of the Atlantic Coast.	September, 1996
33. Detailed Protected Areas Regulations	October 1996
34. Detailed Regulations for Auto Emissions Provisions of GEL	October 1996
35. Draft Biodiversity Law	October 1996

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Protected Areas/Volcán Masaya National Park Documents Produced by MARENA with Support from TR&D	
Title of Document	Date Completed
1. Licitación de: Obras de Rehabilitación de la Infraestructura del Parque Nacional Volcán Masaya	May 1994 (with Horge Hayn)
2. First Conference Results: A Day with Marine Turtles	September 1994
3. Seminar/Workshop: Framework for Initial Management of the BOSAWAS National Reserve and Buffer Zone for 1995	December 1994
4. Socioeconomic Study of the Buffer Zone of Volcán Masaya National Park	October 1996 by M.Sc. Miguel de Castilla Urbina for MARENA

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Appendix 4.6

**List of Landscape Architecture Plans, Topographical Layouts,
and Construction Plans for Volcán Masaya National Park**

**List of Architecture Plans/Topography Layouts/Construction Plans Produced for
Volcán Masaya National Park**

Site	Results	Date	Author
1.ENTRANCE	Landscape Architecture Alternative Plans (2 colored plans, 1 black and white) (#102)	May 31, 1996	Joni Todd
	Landscape Architecture Plans for Demolition (4 plans) (#105)	Sept. 20, 1996	Joni Todd and Ramiro Villalvazo
	Topography Maps (5 maps) (#6)	Sept. 1996	Daniel Vallejos
	Existing Conditions and Demolition/Repair Plans (4 plans) (#105)	Sept. 1996	Ramiro Villalvazo and Joni Todd
	Final Construction, Electrical, and Sanitary Plans (11 plans)	Nov. 1996	Javier Vega and Jorge Boza
2.BOTANICAL GARDEN	Landscape Architecture Plan (2 plans) (#103)	May 31, 1996	Joni Todd
3.CIAM (MUSEUM) PARKING AREA	Landscape Architecture Alternative Plans (3 plans) (#104)	May 31, 1996	Joni Todd
	Existing Conditions and Demolition/Repair Plans (2 plans) (#106)	May 1996	Joni Todd
	Topography Map (1 map) (#1)	Aug. 96	Daniel Vallejos
4.CIAM PICNIC AREA	Landscape Architecture Alternative Plans (2 plans) (#100)	May 31, 1996	Joni Todd
	Topography Maps (4 maps) (#4)	Sept. 1996	Daniel Vallejos
	Landscape Architecture Plan (Relación de Espacios) (#101)	May 1996	Joni Todd

Site	Results	Date	Author
5. CIAM (MUSEUM) RESTAURANT	Architecture/Electrical Plan (1) (#9)	July 1996	Alejandro Peña
	Existing Conditions and Demolition/Repair Plans for parking area only (1) (#107)	May 1996	Joni Todd
	Structural Diagnostic Assessment (4 plans)	Nov. 15, 1996	Jorge Boza
6. COMALITO PICNIC AREA	Landscape Architecture Alternative Plans (2 plans) (originals missing/green book includes copies)	May 31, 1996	Joni Todd
	Architecture Plan for Cabañas (1 plan) (#8)	July 1996	Alejandro Peña
	Existing Conditions and Demolition/Repair Plans (5 plans) (#109)	May 1996	Joni Todd
	Topography Map (1 map) (#5)	Sept. 1996	Daniel Vallejos
	Sanitary Plans (1 plan)	Nov. 1996	Javier Vega and Jorge Boza
7. CASA TALLER	Topography Maps (2 maps) (#3)	Aug. 1996	Daniel Vallejos
8. MIRADOR # 1	Topography Map (1 map) (#7)	Sept. 1996	Daniel Vallejos
9. MIRADOR # 2	Topography Maps (3 maps) (#2)	Sept. 1996	Daniel Vallejos
10. GENERAL	Architecture Plans 1 - Picnic Casetas 2 - Shelter for Park Guards 3 - Picnic Casetas 4 - Bathroom Facilities 5 - Repair plans for trails 6 - Repair plans (unidentified) 7 - Video Area	June 1994 June 1994 May 1994 May 1994 May 1994 May 1994 May 1994	All by Javier Vega

TOTAL
BUDGETED INCURRED

SALARIES	626,854	635,340
FRINGE @20%	113,732	114,397
OVERHEAD @78%	533,550	546,039

OTHER DIRECT COSTS

DIRECT TRAVEL	80,408	85,684
ALLOWANCES	106,730	99,274
OTHER DIRECT COSTS	202,790	206,388
EQUIPMENT & SUPPLIES	115,145	113,409
TRAINING	121,738	100,716
TOTAL OTHER DIR.COST	626,811	605,471

TOTAL CONTRACT COSTS	1,900,947	1,901,247
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FIXED FEE @ 5%	95,048	95,048
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TOTAL CONTRACT	1,995,995	1,996,295
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*** THE COSTS ARE PRELIMINARY, PENDING FINAL CLOSE OUT OF THE CONTRACT

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Appendix 4.8

**Inventory Lists (nonexpendable items and nonexpendable items over
US\$500.00 in cost)**

M E M O R A N D U M

PARA: Dr. Margaret M. Harritt, NRM Project COTR
Re: Submission and transferral of project inventory
Date: November 21, 1996
De: Bonnie J. Larson, TR&D Representative

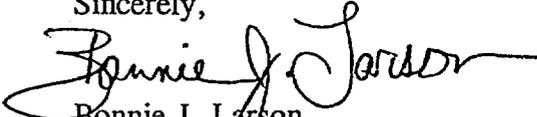
Dear Dr. Harritt:

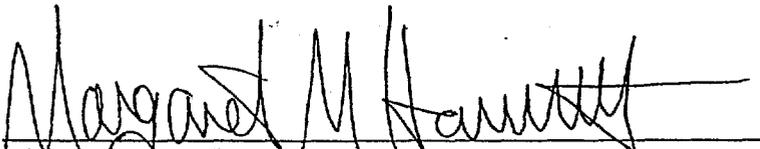
In accordance with USAID regulations, Tropical Research & Development, Inc. hereby transfers non-expendable inventory items purchased for the Natural Resource Management Project with contract funds under contract #524-0314-C-4003-00 to USAID.

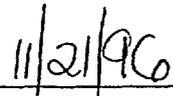
Attached please find the list of inventory items being transferred from TR&D to USAID, including a diskette copy in EXCEL, per your request. TR&D inventory transfer forms are also attached to be signed by designated representatives of both parties.

Thank you for your attention to this matter.

Sincerely,


Bonnie J. Larson
TR&D Representative


Memo and confirmed inventory list received:
Dr. Margaret M. Harritt
NRM Project COTR


Date

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Description	Manufacturer	Serial #	Model #	Purchase Date	Cost	TRD Inv #	Code (Cost)	Code (office)	Location
Copier, incl copy sorter	XEROX	44R500K2120	#5034	07-Jan-94	\$7,945.00	00090, 91	2	Of	TR&D
LAPTOP Gateway 2000, CD-rom, drive A, power supply	Gateway	PC1L0492	P3C	01-Jul-96	\$3,459.00	262,263,264,265	2	Co	TR&D
LAPTOP Gateway 2000, CD-rom, drive A, power supply	Gateway	PC1L0487	P3C	01-Jul-96	\$3,459.00	266,267,268,269	2	Co	TR&D
Radio Trasmitor	Yaesu	N/A	Yaesu FR - 80C	01-Ene-95	\$2,544.25		2	Tn	MAR
Gateway 2000, monitor, keyboard, mouse, CD rom	Gateway	4704450	P5-120	01-May-96	\$2,450.00	0256,57,58,77,79	2	Co	TR&D
Gateway 2000, monitor, keyboard, mouse, CD rom	Gateway	4704451	P5-120	01-May-96	\$2,450.00	0259, 260,261,28	2	Co	TR&D
Gateway Computer	Gateway	4033888	P5-75	01-Ene-95	\$2,119.00	N/A	2	Co	MAR
Gateway Computer	Gateway	4033889	P5-75	01-Ene-95	\$2,119.00	N/A	2	Co	MAR
Gateway Computer	Gateway	4033890	P5-75	01-Ene-95	\$2,119.00	N/A	2	Co	MAR
Gateway Computer	Gateway	4033891	P5-75	01-Ene-95	\$2,119.00	N/A	2	Co	MAR
Gateway Computer	Gateway	4033892	P5-75	01-Ene-95	\$2,119.00	N/A	2	Co	MAR
Gateway Computer	Gateway	4033893	P5-75	01-Ene-95	\$2,119.00	N/A	2	Co	MAR
Gateway 2000. Monitor, keyboard 101, CD rom, Moden 28.8, Seagate hard Drive (1Gb)	Gateway	2456132	4DX-33	01-Aug-94	\$1,999.00	00132, 33 , 35,15	2	Co	TR&D
Gateway 2000 , Monitor, keyboard,mouse , Moden 28.8	Gateway	1895984	486DX-33MHZ	06-Jan-94	\$1,665.00	00082,83,84,140	2	Co	TR&D
Gateway 2000, monitor, keyboard, mouse,CD rom, Moden 14.0	Gateway	2436794	N/A	01-Aug-94	\$1,598.00	00137, 36, 38, 14	2	Co	TR&D
Radio Trasmitor	Yaesu	N/A	Yaesu FT-80C	01-Ene-95	\$1,594.25	N/A	2	Tn	MAR
Radio Trasmitor	Yaesu	N/A	Yaesu FT-80C	01-Ene-95	\$1,594.25	N/A	2	Tn	MAR
Radio Trasmitor	Yaesu	N/A	Yaesu FR - 80C	01-Ene-95	\$1,594.25	N/A	2	Tn	MAR
Radio Base Unit	Yaesu	N/A	Yaesu FT-80C	01-Ene-95	\$1,594.25	N/A	2	Tn	MAR
Gateway 2000 Monitor, keyboard, mouse	Gateway	1895985	486DX-33MHZ	06-Jan-94	\$1,465.00	00087, 149	2	Co	TR&D
HP Laser Jet Printer	Hewlett Packard	JPBK117453	LASER JET IV	06-Jan-94	\$1,397.00	00076	2	Co	TR&D
HP Flatbed Scanner	Hewlett Packard	SG5BD220HW	Scanjet 4C	01-Mar-96	\$949.00	0215	1	Tn	TR&D
Slide Projector, Case, Zoom Lens	KODAK	A-682143	Ektagaphic III E	01-Ene-95	\$680.00	0172,0176		Tn	TR&D
Air conditioner	Fedders	N/A	BH675240 - 0376	01-Mar-96	\$499.00	0210	1	Tn	MAR
Air conditioner	Fedders	N/A	BH674596 - 0376	01-Mar-96	\$499.00	0211	1	Tn	MAR
Weedeater Machine - Brushwacker	CRAFTMAN	36CC	PV-24-2	15-May-96	\$495.00	0254	1	Tn	TR&D
OmniPage Pro 5.0 for Windows	Software	N/A	Windows	01-Ene-96	\$480.00	N/A	1	Co	MAR
HP LaserJet Printer	N/A	N/A	5I-FS	01-Ene-95	\$480.00	N/A	2	Co	MAR
HP LaserJet Printer	N/A	N/A	5I-FS	01-Ene-95	\$480.00	N/A	2	Co	MAR
HP LaserJet Printer	N/A	N/A	5I-FS	01-Ene-95	\$480.00	N/A	2	Co	MAR
Solar Panels	Solarex	N/A	Solarex MSX60	01-Ene-95	\$475.00	N/A	2	Tn	MAR

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Description	Manufacturer	Serial #	Model #	Purchase Date	Cost	TRD Inv #	Code (Cost)	Code (office)	Location
Solar Panels	Solarex	N/A	Solarex MSX60	01-Ene-95	\$475.00	N/A	2	Tn	MAR
Light Box	LUXOR	N/A	N/A	15-May-96	\$465.00	0253	1	Tn	TR&D
Air Conditioner	Fedders	12500BTU	N/A	01-Mar-95	\$450.00	00171	1	Of	TR&D
APC Power Back Up	N/A	N/A	PRO 1000	01-Ene-95	\$361.00	N/A	1	Co	MAR
APC Power Back Up	N/A	N/A	PRO 1000	01-Ene-95	\$361.00	N/A	1	Co	MAR
APC Power Back Up	N/A	N/A	PRO 1000	01-Ene-95	\$361.00	N/A	1	Co	MAR
Faxphone	Canon	UMA-41251	FAX16	07-Jan-94	\$350.00	00075	1	Of	TR&D
Deskwriter Printer for Macintosh, PMC80C	Hewlett Packard	US63FLG275	C45508	01-Nov-96	\$345.00	00285	1	Co	TR&D
Drafting Table	N/A	N/A	N/A	01-Mar-96	\$327.00	0214	1	Tn	MAR
Wordperfect 6.0	Software	N/A	N/A	05-Jan-94	\$324.00	00142	1	Co	USAID
Auto Patch	N/A	N/A	CES510SA	01-Ene-95	\$295.00	N/A	2	Tn	MAR
Lotus 123/Windows 4.0	N/A	N/A	N/A	05-Jan-94	\$294.00	00143	1	Co	TR&D
Smart-UPS Battery	APC	S94073272254	400	01-Aug-96	\$279.00	00134	1	Co	TR&D
Smart-UPS Battery	APC	S940732722233	400	01-Aug-96	\$279.00	00139	1	Co	TR&D
Line Conditioner	Tripp Lite	BS4A-ALF	LC-2400	09-Mar-94	\$270.00	00092	1	Co	TR&D
Line Conditioner	N/A	N/A	LC2400	23-Nov-94	\$269.00	00155	1	Of	TR&D
Camera, 35 mm	Olympus	1374503	3500DLX	01-Nov-96	\$240.00	00296	1	Tn	TR&D
Chair Erwood - Gray	World	N/A	N/A	16-Aug-94	\$238.49	00113	1	Of	TR&D
Radiograph Pen set	N/A	N/A	3165 HRS 12	01-Mar-96	\$230.00	0208	1	Tn	TR&D
Radiograph Pen set	KOH-I-NOOR	N/A	3165 HRS 12	01-Mar-96	\$230.00	0209	1	Tn	TR&D
Bookshelve-Doc.Center	Local	N/A	N/A	31-Oct-94	\$207.31	00131	1	Of	TR&D
Bookshelve-Doc 5 shelf	Local	N/A	N/A	01-Feb-96	\$206.52	00182	1	Of	TR&D
Chair World Black	Local	N/A	Executive	19-Jan-94	\$201.86	00107	1	Of	TR&D
Binding Machine	IBICO Inc.	16724	IBIMATIC	01-Mar-95	\$200.00	00216	1	Of	TR&D
Iomega Zip Drive	Iomega	N/A	100 MB Parallel	01-Aug-96	\$200.00	00272	1	Co	TR&D
Iomega Zip Drive	Iomega	N/A	100 MB Parallel	01-Aug-96	\$200.00	00273	1	Co	TR&D
Iomega Zip Drive	Iomega	N/A	100 MB Parallel	01-Aug-96	\$200.00	00274	1	Co	TR&D
Iomega Zip Drive	Iomega	N/A	100 MB Parallel	01-Aug-96	\$200.00	00275	1	Co	TR&D
Rolatape Measuring Whell	KOH-I-NOOR	N/A	415M	01-Mar-96	\$194.00	00184	1	Tn	TR&D
File Cabinets, 4 Cabinetes	N/A	N/A	SF426	07-Jan-94	\$189.00	00079	1	Of	TR&D
File Cabinets, 4 Cabinetes	N/A	N/A	SF426	07-Jan-94	\$189.00	00080	1	Of	TR&D
File Cabinets, 4 Cabinetes	N/A	N/A	SF426	07-Jan-94	\$189.00	00081	1	Of	TR&D
Batery Back - Up	Tripp Lite	BJR5B	BC500	11-Jan-94	\$188.00	00077	1	Co	TR&D
Batery Back - Up	Tripp Lite	BJR5B	BC500	11-Jan-94	\$188.00	00078	1	Co	TR&D
Chair World Black	World	N/A	Executive	19-Jan-94	\$185.41	00106	1	Of	TR&D
Easel and Case (Portable)	N/A	T02-40002	N/A	01-Mar-96	\$180.00	00163	1	Tn	TR&D
Tents 5 person Geodesic Dome	Gauder Mantain	N/A	406-0049	01-Nov-96	\$150.00	00294	1	Tn	TR&D
Tents, 5 person Geodesic Dome	Gauder Mantain	N/A	406-0049	01-Nov-96	\$150.00	00295	1	Tn	TR&D

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Description	Manufacturer	Serial #	Model #	Purchase Date	Cost	TRD Inv #	Code (Cost)	Code (office)	Location
Formica Desk, Metal	Local	N/A	N/A	04-Feb-94	\$143.67	00101	1	Of	TR&D
Formica Desk, Metal	Local	N/A	N/A	04-Feb-94	\$143.67	00102	1	Of	TR&D
Lupe 8x Puncher & Holder	Peak	N/A	# 2018	01-Mar-96	\$140.00	0212	1	Tn	TR&D
Lupe 8x Puncher & Holder	Peak	N/A	# 2018	01-Mar-96	\$140.00	0213	1	Tn	TR&D
Firt AID Kit (hazardous material)	Johnson & Johnso	N/A	8163	15-May-96	\$136.00	0251	1	Tn	TR&D
Line Conditioner	APC	WL9640594696	R600	01-Nov-96	\$135.00	00282	1	Co	TR&D
Line Conditioner	APC	WL9640574737	R600	01-Nov-96	\$135.00	00283	1	Co	TR&D
Line Conditioner	APC	WL9640574766	R600	01-Nov-96	\$135.00	00284	1	Co	TR&D
File Cabinets 2 gavetas , Metal	Local	N/A	Executive	01-Jan-96	\$121.25	00177	1	Of	TR&D
File Cabinets 2 gavetas , Metal	Local	N/A	Executive	01-Jan-96	\$121.25	00178	1	Of	TR&D
Drawing stool	N/A	N/A	AJ5431	01-Mar-96	\$120.00	00185	1	Tn	MAR
Convex compass set	Rotring	N/A	R5302290	01-Mar-96	\$120.00	0206	1	Tn	TR&D
Convex compass set	Rotring	N/A	R5302290	01-Mar-96	\$120.00	0207	1	Tn	TR&D
Heavy duty flashlight	Streamlite	167070	SN167700	01-Nov-96	\$120.00	00286	1	Tn	TR&D
Heavy duty flashlight	Streamlite	157703	SN167702	01-Nov-96	\$120.00	00287	1	Tn	TR&D
Heavy duty flashlight	Streamlite	167701	SN167703	01-Nov-96	\$120.00	00288	1	Tn	TR&D
Heavy duty flashlight	Streamlite	167702	SN167701	01-Nov-96	\$120.00	00289	1	Tn	TR&D
Computer Table	Local	N/A	N/A	01-Nov-94	\$119.05	00111	1	Of	TR&D
Chair Erwood - Gray	World	N/A	N/A	20-Jan-94	\$114.50	00103	1	Of	TR&D
Chair Erwood - Gray	World	N/A	N/A	20-Jan-94	\$114.50	00104	1	Of	TR&D
Acrylic Board White	N/A	N/A	N/A	01-Feb-94	\$114.50	00105	1	Of	TR&D
Computer Table	Local	N/A	N/A	01-Jan-96	\$106.25	00179	1	Co	TR&D
Lopping Shears / Brusm Cutters	Ferguson	N/A	0290F	01-May-96	\$105.00	0227	1	Tn	TR&D
Lopping Shears	Ferguson	N/A	0290F	01-May-96	\$105.00	0228	1	Tn	TR&D
Scalex (Map scaler) Electronic	PlanWhell	N/A	N/A	01-Mar-96	\$103.00	0202	1	Tn	TR&D
Scalex (Map scaler) Electronic	PlanWhell	N/A	N/A	01-Mar-96	\$103.00	0203	1	Tn	TR&D
Screen and case Projector	DA-LITE	T02-6091	N/A	01-Mar-96	\$100.00	00165	1	Tn	TR&D
Telephone	Doufone-209	73188	43-617A	1-Mar-95	\$100.00	00160	1	Of	TR&D
Telephone	Radio Chack	81616	43-617A	1-Mar-95	\$100.00	00159	1	Of	TR&D
Line Stabilizer	Tripp Lite	N/A	LS604L	23-Nov-94	\$99.00	00152	1	Of	TR&D
Line Stabilizer	Tripp Lite	N/A	LS604L	23-Nov-94	\$99.00	00153	1	Of	TR&D
Secretarial Desk	Local	N/A	N/A	16-Aug-94	\$97.14	00112	1	Of	TR&D
Straight edge parallele Bar/Drafting	Table	N/A	N/A	01-Mar-96	\$95.00	00187	1	Tn	MAR
Map Measurer	N/A	N/A	45240	01-Mar-96	\$95.00	0198	1	Tn	TR&D
Map Measurer	N/A	N/A	45240	01-Mar-96	\$95.00	0199	1	Tn	TR&D
Map Measurer	N/A	N/A	45240	01-Mar-96	\$95.00	0200	1	Tn	TR&D
Map Measurer	N/A	N/A	45240	01-Mar-96	\$95.00	0201	1	Tn	TR&D
Computer Table, Accesory	Local	N/A	TS32-EO	07-Jan-94	\$93.00	00088	1	Co	TR&D

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Description	Manufacturer	Serial #	Model #	Purchase Date	Cost	TRD Inv #	Code (Cost)	Code (office)	Location
Computer Table, Accessory	Local	N/A	TS32-EO	07-Jan-94	\$93.00	00089	1	Co	TR&D
PM Clinometer and cases	Sunnto	543696	PM -5/360 PC	01-Mar-96	\$90.00	00188	1	Tn	TR&D
PM Clinometer and cases	Sunnto	538111	PM -5/360 PC	01-Mar-96	\$90.00	00190	1	Tn	TR&D
PM Clinometer and cases	Sunnto	538179	PM -5/360 PC	01-Mar-96	\$90.00	00189	1	Tn	TR&D
Secretarial chair	World	N/A	N/A	01-Jan-96	\$87.50	00180	1	Of	TR&D
Surge Protector	PANAMAX	N/A	MAX6	17-Feb-94	\$79.00	00144	1	Co	TR&D
Conference Room-Chair-BK	N/A	N/A	N/A	31-Oct-94	\$68.49	00123	1	Of	TR&D
Conference Room-Chair-BK	N/A	N/A	N/A	31-Oct-94	\$68.49	00124	1	Of	TR&D
Conference Room-Chair-BK	N/A	N/A	N/A	31-Oct-94	\$68.49	00125	1	Of	TR&D
Conference Room-Chair-BK	N/A	N/A	N/A	31-Oct-94	\$68.49	00126	1	Of	TR&D
Conference Room-Chair-BK	N/A	N/A	N/A	31-Oct-94	\$68.49	00127	1	Of	TR&D
Conference Room-Chair-BK	N/A	N/A	N/A	31-Oct-94	\$68.49	00128	1	Of	TR&D
Conference Room-Chair-BK	N/A	N/A	N/A	31-Oct-94	\$68.49	00129	1	Of	TR&D
Conference Room-Chair-BK	N/A	N/A	N/A	31-Oct-94	\$68.49	00130	1	Of	TR&D
Tape Recorder Walkman	Panasonic	N/A	RQ-A161	01-Nov-96	\$65.00	297	1	Tn	TR&D
Tape Recorder Walkman	Panasonic	N/A	RQ-A161	01-Nov-96	\$65.00	298	1	Tn	TR&D
Sleeping pads	Therm-A-Rest	N/A	N/A	01-Nov-96	\$65.00	N/A	1	Tn	TR&D
Sleeping pads	Therm-A-Rest	N/A	N/A	01-Nov-96	\$65.00	N/A	1	Tn	TR&D
Sleeping pads	Therm-A-Rest	N/A	N/A	01-Nov-96	\$65.00	N/A	1	Tn	TR&D
Sleeping pads	Therm-A-Rest	N/A	N/A	01-Nov-96	\$65.00	N/A	1	Tn	TR&D
Sleeping pads	Therm-A-Rest	N/A	N/A	01-Nov-96	\$65.00	N/A	1	Tn	TR&D
Sleeping pads	Therm-A-Rest	N/A	N/A	01-Nov-96	\$65.00	N/A	1	Tn	TR&D
Telephone	Panasonic	2GAHA005893	KX-T2250	07-Jan-94	\$60.00	00071	1	Of	TR&D
Telephone	Panasonic	2GAHA0011020	KX-T2250	07-Jan-94	\$60.00	00072	1	Of	TR&D
Telephone	Panasonic	2FCHA001763	KX-T2250	07-Jan-94	\$60.00	00073	1	Of	TR&D
Telephone	Panasonic	2FCHA005159	KX-T2250	07-Jan-94	\$60.00	00074	1	Of	TR&D
Apple Talk Kit Connector	N/A	N/A	N/A	1-Sep-96	60	N/A	1	Co	MAR
Bookshelve-Doc 3 shelf	Local	N/A	N/A	01-Jan-96	\$56.25	00181	1	Of	TR&D
Surge Protector	PANAMAX	N/A	TELEMX2	17-Feb-94	\$49.00	00145	1	Co	TR&D
Tree Pruner, gear driven At 30 Lb.	N/A	N/A	N/A	01-Mar-96	\$47.00	0229	1	Tn	TR&D
Conference Table	N/A	N/A	N/A	31-Oct-94	\$45.86	00114	1	Of	TR&D
Guest Chair-Black	N/A	N/A	N/A	31-Oct-94	\$45.86	00115	1	Of	TR&D
Guest Chair-Black	N/A	N/A	N/A	31-Oct-94	\$45.86	00116	1	Of	TR&D
Guest Chair-Black	N/A	N/A	N/A	31-Oct-94	\$45.86	00117	1	Of	TR&D
Guest Chair-Black	N/A	N/A	N/A	31-Oct-94	\$45.86	00118	1	Of	TR&D
Guest Chair-Black	N/A	N/A	N/A	31-Oct-94	\$45.86	00119	1	Of	TR&D
Guest Chair-Black	N/A	N/A	N/A	31-Oct-94	\$45.86	00120	1	Of	TR&D
Guest Chair-Black	N/A	N/A	N/A	31-Oct-94	\$45.86	00121	1	Of	TR&D

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Description	Manufacturer	Serial #	Model #	Purchase Date	Cost	TRD Inv #	Code (Cost)	Code (office)	Location
Guest Chair-Black	N/A	N/A	N/A	31-Oct-94	\$45.86	00122	1	Of	TR&D
Tripp Lite Isobar	N/A	N/A	Ultra 4	01-Ene-95	\$42.00	N/A	1	Co	MAR
Tripp Lite Isobar	N/A	N/A	Ultra 4	01-Ene-95	\$42.00	N/A	1	Co	MAR
Tripp Lite Isobar	N/A	N/A	Ultra 4	01-Ene-95	\$42.00	N/A	1	Co	MAR
Range finder and cases	Ranging	N/A	Opti Meter 120	01-Mar-96	\$41.00	0204	1	Tn	TR&D
Range finder and cases	Ranging	N/A	Opti Meter 120	01-Mar-96	\$41.00	0205	1	Tn	TR&D
Ranger Compass and cases	Silva	N/A	15CLQ and 37040	01-Mar-96	\$40.00	00195	1	Tn	TR&D
Ranger Compass and cases	Silva	N/A	15CLQ and 37040	01-Mar-96	\$40.00	00196	1	Tn	TR&D
Ranger Compass and cases	Silva	N/A	15CLQ and 37040	01-Mar-96	\$40.00	00197	1	Tn	TR&D
Portable Tape Recorder	Radio Shack	N/A	CTR-66	1-Mar-95	\$40.00	00156	1	Tn	TR&D
Quicken Software	N/A	N/A	5.0 for windows	01-Jan-96	\$40.00	00281	1	Co	TR&D
Printing Calculator and Ac Adaptador	Casio	N/A	HR-8B / AD-4150	30-Feb-94	\$32.05	00108	1	Of	TR&D
Flashlights	Mag-Lite	3014088600	S3D016	01-Nov-96	\$30.00	00290	1	Tn	TR&D
Flashlights	Mag-Lite	3014032419	S3D016	01-Nov-96	\$30.00	00291	1	Tn	TR&D
Flashlights	Mag-Lite	3014089026	S3D016	01-Nov-96	\$30.00	00292	1	Tn	TR&D
Flashlights	Mag-Lite	3014088190	S3D016	01-Nov-96	\$30.00	00293	1	Tn	TR&D
Measure wheel case	Rotatape	N/A	415M	01-Mar-96	\$28.00	00183	1	Tn	TR&D
Shovel, Razor Back Origin US	Razorback	N/A	N/A	01-Mar-96	\$27.00	0217	1	Tn	TR&D
Shovel, Razor Back Origin US	Razorback	N/A	N/A	01-Mar-96	\$27.00	0218	1	Tn	TR&D
Shovel, Razor Back Origin US	Razorback	N/A	N/A	01-Mar-96	\$27.00	0219	1	Tn	TR&D
Shovel, Razor Back Origin US	Razorback	N/A	N/A	01-Mar-96	\$27.00	0220	1	Tn	TR&D
Shovel, Razor Back Origin US	Razorback	N/A	N/A	01-Mar-96	\$27.00	0221	1	Tn	TR&D
Shovel, Razor Back Origin US	Razorback	N/A	N/A	01-Mar-96	\$27.00	0222	1	Tn	TR&D
Shovel, Razor Back Origin US	Razorback	N/A	N/A	01-Mar-96	\$27.00	0223	1	Tn	TR&D
Shovel, Razor Back Origin US	Razorback	N/A	N/A	01-Mar-96	\$27.00	0224	1	Tn	TR&D
Shovel, Razor Back Origin US	Razorback	N/A	N/A	01-Mar-96	\$27.00	0225	1	Tn	TR&D
Shovel, Razor Back Origin US	Razorback	N/A	N/A	01-Mar-96	\$27.00	0226	1	Tn	TR&D
Flashlight	Mag-Lite	D3013332171	S3D016	01-Mar-96	\$25.00	0234	1	Tn	TR&D
Flashlight	Mag-Lite	D3013257024	S3D016	01-Mar-96	\$25.00	0235	1	Tn	TR&D
Flashlight	Mag-Lite	D3013331585	S3D016	01-Mar-96	\$25.00	0236	1	Tn	TR&D
Flashlight	Mag-Lite	D3013331494	S3D016	01-Mar-96	\$25.00	0237	1	Tn	TR&D
Flashlight	Mag-Lite	D3013331803	S3D016	01-Mar-96	\$25.00	0240	1	Tn	TR&D
Day packs	Quest	N/A	35-1515-BL	01-Nov-96	\$25.00	N/A	1	Tn	TR&D
Day packs	Quest	N/A	35-1515-BL	01-Nov-96	\$25.00	N/A	1	Tn	TR&D
Day packs	Quest	N/A	35-1515-BL	01-Nov-96	\$25.00	N/A	1	Tn	TR&D
Day packs	Quest	N/A	35-1515-BL	01-Nov-96	\$25.00	N/A	1	Tn	TR&D
Day packs	Quest	N/A	35-1515-BL	01-Nov-96	\$25.00	N/A	1	Tn	TR&D
Day packs	Quest	N/A	35-1515-BL	01-Nov-96	\$25.00	N/A	1	Tn	TR&D

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Description	Manufacturer	Serial #	Model #	Purchase Date	Cost	TRD Inv #	Code (Cost)	Code (office)	Location
Day packs	Quest	N/A	35-1515-BL	01-Nov-96	\$25.00	N/A	1	Tn	TR&D
Day packs	Quest	N/A	35-1515-BL	01-Nov-96	\$25.00	N/A	1	Tn	TR&D
Day packs	Quest	N/A	35-1515-BL	01-Nov-96	\$25.00	N/A	1	Tn	TR&D
Day packs	Quest	N/A	35-1515-BL	01-Nov-96	\$25.00	N/A	1	Tn	TR&D
100 measure tape	LUFKIN	N/A	Tufby 1706 D	01-Mar-96	\$24.00	00193	1	Tn	TR&D
100 measure tape	LUFKIN	N/A	Tufby 1706 D	01-Mar-96	\$24.00	00194	1	Tn	TR&D
Keson 30m measure tape	KESON	N/A	OTR - 30 M	01-Mar-96	\$22.00	00191	1	Tn	TR&D
Keson 30m measure tape	KESON	N/A	OTR - 30 M	01-Mar-96	\$22.00	00192	1	Tn	TR&D
Slide Trays	KODAK	G16-AV780	N/A	01-Mar-95	\$14.00	00166	1	Tn	TR&D
Slide Trays	KODAK	G16-AV780	N/A	01-Mar-95	\$14.00	00167	1	Tn	TR&D
Slide Trays	KODAK	G16-AV780	N/A	01-Mar-95	\$14.00	00168	1	Tn	TR&D
Slide Trays	KODAK	G16-AV780	N/A	01-Mar-95	\$14.00	00169	1	Tn	TR&D
Slide Trays	KODAK	G16-AV780	N/A	01-Mar-95	\$14.00	00170	1	Tn	TR&D
Drafting Lamp	N/A	N/A	N/A	01-Mar-96	\$12.00	0252	1	Tn	MAR
Safety goggles	ESTWING	N/A	Z-87.1 -1989	15-May-96	\$3.00	0241	1	Tn	TR&D
Safety goggles	ESTWING	N/A	Z-87.1 -1989	15-May-96	\$3.00	0242	1	Tn	TR&D
Safety goggles	ESTWING	N/A	Z-87.1 -1989	15-May-96	\$3.00	0243	1	Tn	TR&D
Safety goggles	ESTWING	N/A	Z-87.1 -1989	15-May-96	\$3.00	0244	1	Tn	TR&D
Safety goggles	ESTWING	N/A	Z-87.1 -1989	15-May-96	\$3.00	0245	1	Tn	TR&D
Safety goggles	ESTWING	N/A	Z-87.1 -1989	15-May-96	\$3.00	0246	1	Tn	TR&D
Safety goggles	ESTWING	N/A	Z-87.1 -1989	15-May-96	\$3.00	0247	1	Tn	TR&D
Safety goggles	ESTWING	N/A	Z-87.1 -1989	15-May-96	\$3.00	0248	1	Tn	TR&D
Safety goggles	ESTWING	N/A	Z-87.1 -1989	15-May-96	\$3.00	0249	1	Tn	TR&D
Safety goggles	ESTWING	N/A	Z-87.1 -1989	15-May-96	\$3.00	0250	1	Tn	TR&D

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Code Office	Code Cost
Of = Office Equip	1 < \$500
Co = Computer equip	2 > \$500
Tn = Technical equip	

Bonnie Larson
Tropical Research and Development Representative (Bonnie Larson)

Geraldo Bauer for Margaret Harritt

I hereby accept the above named property and certify they have been received in good condition. USAID Representative (Margaret Harritt)

(GERALDO BAUER for Margaret Harritt)

11/21/96
Date

11/21/96
Date



TR & D

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