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A REPORT ON
PROGRESS IN CONSERVING BIOLOGICAL DIVERSITY
IN DEVELOPING COUNTRIES
FY 1986

PRESENTED TO THE CONGRESS OF THE UNITED STATES

by

The Agency for International Development
on Behalf of the
Interagency Task Force on Biological Diversity
In Implementation of Section 119 of the
Foreign Assistance Act

February 1987



AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON D C 20523

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THE ADMINISTRATOR

TO THE CONGRESS OF THE UNITED STATES:

This Annual Report on Progress in Conserving Biological Diversity in Developing Countries summarizes the activities of U.S. Government agencies during Fiscal Year 1986 in accordance with the requirements of Section 119(d) of the Foreign Assistance Act of 1961, as amended. This report represents the cooperative efforts of the member agencies of the Interagency Task Force on Biological Diversity (ITF), with coordination by my staff.

The ITF was established by Congressional mandate in 1983 to develop a United States strategy, including specific policies and programs, to protect and conserve biological diversity in developing countries. In February 1985, on behalf of the ITF, I delivered to the Congress the U.S. Strategy on the Conservation of Biological Diversity: An Interagency Task Force Report to Congress. The Task Force Report included a review of existing U.S. Government activities on biological diversity conservation and a comprehensive set of recommendations for action to enhance the conservation of biological diversity in developing countries.

In February of 1986, I forwarded to the Congress, on behalf of the ITF, the report: Progress in Conserving Biological Diversity in Developing Countries FY 1985. This latter report contained a detailed listing of activities related to the conservation of biological diversity in developing countries that were initiated during FY 1985 by the member agencies of the ITF.

This report summarizes activities, undertaken by the Agency for International Development (A.I.D.) and the other member agencies of the ITF during FY 1986. The report also summarizes major events related to the issue and steps underway to implement new legislative initiatives that were established during 1986.

The conservation of biological diversity is a complex issue of cross-sectoral importance. It touches upon many of the U.S. Government's current development assistance and international conservation activities. Consequently, within A.I.D. and in collaboration with the ITF, our approach is to seek ways in which

the conservation of biological diversity can become an integral part of existing programs and activities. To further this goal, the ITF was expanded during FY 1986 to include the Department of the Treasury, the Peace Corps, the U.S. Information Agency, and the Overseas Private Investment Corporation. The ITF will continue to coordinate and integrate conservation activities into international development assistance programs in the coming years.

A handwritten signature in black ink, appearing to read "M Peter McPherson". The signature is fluid and cursive, with a long horizontal stroke at the end.

M. Peter McPherson

ACKNOWLEDGMENTS

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Department of Agriculture
Department of Commerce
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Council on Environmental Quality
Environmental Protection Agency
National Science Foundation
Overseas Private Investment Corporation
The Peace Corps
Smithsonian Institution
U.S. Information Agency

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SUMMARY

This report summarizes FY 1986 activities of U.S. Government (USG) agencies that are related to the conservation of biological diversity in developing countries. The report includes a brief review of important biological diversity issues and describes major recent events concerned with biological diversity.

Highlights of each agency's activities are reviewed in Section 2 and are summarized, by agency, in a series of activity and funding tables. Fully one third of biological diversity activities or components of activities of USG agencies during FY 1986 focused on the protection of biological diversity as defined in Section 119(b) of the Foreign Assistance Act (as amended). A significant number of these activities were in the areas of institution building and training (38) and research and inventories (32). In addition, nearly 80 Peace Corps volunteer years were devoted to biological diversity protection activities.

Funding levels for Section 119(b) activities are difficult to establish accurately because biological diversity activities are frequently a component of larger multi-faceted activities. Nevertheless, a conservative estimate of USG funding for biological diversity protection activities during FY 1986 approaches \$4 million, of which some \$2.6 million was provided by the Agency for International Development. The Peace Corps estimated an additional \$1.8 million for volunteers working on protection activities.

Beyond direct protection of biological diversity activities, USG agencies were involved in over 200 activities with developing countries, such as natural resources and environmental management, enhanced agricultural, forestry, range or fisheries production, and germplasm conservation activities which have components that contribute to conserving biological diversity. Funding for these additional activities approached \$15 million.

1. INTRODUCTION

1.1 Scope of this Report

This is the third in a series of annual reports to Congress, as required by section 119(d) of the Foreign Assistance Act (as amended) on actions taken by U.S. Government (USG) agencies to assist developing countries in efforts to conserve biological diversity. The first report, the U.S. Strategy on the Conservation of Biological Diversity: An Interagency Task Force Report to Congress, (February 1985) was an in-depth overview of the issue of species and habitat loss, USG programs which address the issue, and recommendations for further action.

The second report: Progress in Conserving Biological Diversity in Developing Countries FY 1985: A Report to Congress on Implementation of Section 119 of The Foreign Assistance Act (February 1986), provided a brief synopsis of the administrative and legislative history of the issue and a detailed listing of activities initiated by the USG during FY 1985 that were directly or indirectly related to the conservation of biological diversity in developing countries.

This report summarizes major recent events related to the biological diversity issue and provides a detailed accounting of all relevant USG activities, new or ongoing, that occurred during FY 1986. The report reflects submissions provided by the various Federal agencies as of January 28, 1987.

In Section 1.2, a brief overview of the issue is provided, followed by summaries of major recent events in Sections 1.3, 1.4 and 1.5. Section 2 provides a summary of overall USG biological diversity activities during FY 1986. Activity and funding information is summarized in a series of tables in Appendix A. The reader may find detailed descriptions of each activity of each agency in the BioDiversity Activity Reports compiled in Appendix B.

1.2 The Issue and Its Importance

Biologists estimate that there are a minimum of 10,000,000 species of microbes, plants and animals in existence today. Fully 5 to 20 percent (500,000-2,000,000) of these species are thought to be vulnerable to extinction over the next 20 to 50 years, due principally to the continued loss and alteration of wild habitats, especially tropical forests.

Such a reduction in the diversity of life on earth is cause for serious concern, primarily for two reasons. First, we depend on the biota of our planet for all our food and for much of the

material for our clothing, shelter, medicines, and industrial raw materials. Both the productivity and security of currently utilized species can and has been enhanced by the utilization of genetic variation obtained from wild germplasm. For example, in the U.S. alone, per hectare yields for eight principal food crops showed increases of from 112 to 311 percent between 1930 and 1975. About 50 percent of this increased productivity can be attributed to the use of plant genetic resources in selective breeding programs.

In addition, through ethnobotanical and ethnozoological studies and our advancing science and technology, we continue to identify new and practical uses for many species formerly thought "worthless." The most striking recent example is the development of two potent anti-cancer drugs, derived from a Caribbean wildflower, that have, in the last 20 years, increased the remission rate more than four-fold for childhood leukemia.

The projected loss in species diversity could cripple the genetic base for the continued improvement and maintenance of currently utilized species and rob us of many potentially useful species whose worth awaits discovery.

A second principal concern over the projected loss of species relates to the unknown ecological consequences of such a drastic reduction in the diversity of life on earth. It should be noted that even those species with no currently recognized direct economic or humanitarian value are nonetheless components of natural systems and processes (nutrient and water cycling, soil formation and retention) that are essential to maintaining a productive and habitable world. Because extinction at some rate is a natural phenomenon, it is likely that major ecological processes are indifferent to the loss of any individual species. But, it is unknown at what level of multiple, concurrent extinctions major ecological changes might become manifest. Nevertheless, the loss of 5 to 20 percent of the species on earth could produce secondary environmental consequences with direct, pragmatic impacts on society.

In the past century and increasingly in recent decades, the developed nations of the world have come to recognize the practical arguments for maintaining the diversity of living resources. Various programs, both national and international, have been instituted to control the overuse of wild plant and animal species, and to regulate the discharge of air and water pollutants and other hazardous substances that can have a damaging effect on people and on wild plant and animal species.

Societies worldwide have also made a substantial investment in establishing public and private parks, refuges, and other protected areas, in large part to maintain the diversity of native species.

Many developing countries face unique challenges in dealing with an issue such as biological diversity, not least of which is the inability to focus on long-term needs in an atmosphere of pressing social and economic needs. Although many developing countries have systems of protected areas and agencies dealing with forestry, wildlife, fisheries, parks, etc., few of these countries have had the technical and financial resources to develop adequate programs to assure the conservation of the diversity of their living resources.

This is a particularly urgent problem because many developing nations are located in the tropics where the level of biological diversity is the highest and where the threats to its maintenance are the greatest. Fully 40 to 50 percent of all species on earth are thought to be native to the 6 to 7 percent of the earth's land area that is covered by humid tropical forests. Among this intense concentration of species, are likely some of the most promising candidates for new foods and new medicines. Yet, at current rates of tropical deforestation and conversion, virtually all primary tropical moist forest areas will be gone within 50 years. At the same time, many of the tropical developing countries are among the poorest on earth, often with large and rapidly growing populations. Unless these countries receive sufficient assistance to adequately address the biological diversity issue, both they and the global community stand to lose living resources of truly inestimable value.

1.3 Growing Awareness of the Issue

- The United States

Recognition of the great importance of the maintenance of biological diversity and tropical forest resources has increased in recent years and is still growing. The Department of State, in conjunction with the Agency for International Development (A.I.D.) and other Federal agencies, held a Strategy Conference in 1978 on Tropical Deforestation to examine the nature and scope of the problem and to provide recommendations for government action. A similar Strategy Conference on Biological Diversity was held in 1980. The results of these exercises included; (1) the formation of federal interagency task forces on tropical forests (1979) and biological diversity (1984); (2) the formulation and publication by these task forces of federal

interagency strategies on the issues (tropical forests, 1980; biological diversity, 1985); and (3) amendments to the Foreign Assistance Act (tropical forests Section 118(d), 1981, 1986; biological diversity, Section 119, 1983, 1986) specifically authorizing the use of U.S. foreign assistance programs to assist developing countries to address these issues.

In September of 1986, the Smithsonian Institution and the National Academy of Sciences (NAS) co-sponsored a National Forum on BioDiversity in Washington, D.C. The Forum brought together experts in ecology, tropical biology, conservation, development, economics, and other disciplines. The Forum provided the public and the administrative and legislative communities with a substantive overview of the problems associated with the continuing loss of habitat, species, and genetic resources; the possible consequences for human welfare of continued loss; and the options and alternatives for addressing the problem.

The Forum was attended by over 800 people. Extensive press coverage brought both the issue and the Forum to a national audience and generated great interest.

Also during FY 1986, the Congressional Office of Technology Assessment (OTA) moved toward completion of an Assessment of Technologies to Maintain Biological Diversity. This report reviews the quality and extent of data available on the loss of habitats, species and genetic resources as a basis for effective action as well as options for further Congressional action. The report is scheduled for release later this year and will contain recommendations relating to A.I.D. and other member agencies of the ITF.

- The International Community

Biological diversity also received increased international attention. The World Bank approved a new Operational Policy on Wildlands in June 1986. If fully implemented, the policy could have considerable impact on the integration of natural resources conservation with economic development in a large number of countries in the tropics. The policy limits the use of World Bank funds where projects would convert lands of special concern, such as national parks or other areas that contain exceptional biological diversity. If conversion is deemed necessary, projects will be sited on less valuable wildlands or the loss will be made up by conservation of equivalent, ecologically similar areas elsewhere.

The International Union for the Conservation of Nature and Natural Resources (IUCN), in cooperation with the Government of Canada, held an international conference on implementation of the World Conservation Strategy in Ottawa in May 1986. Over 500 representatives from 60 countries attended this important meeting to discuss progress in resolution of conservation issues. Working sessions were held on a number of critical topics including preparation of national conservation strategies in the developing world. Countries, developed and developing, were able to compare approaches and to learn from each other.

Work continued on the global Tropical Forest Action Plan under the leadership of the Food and Agricultural Organization (FAO). A number of donor organizations have agreed to take responsibility for national "forestry sector reviews" (including conservation) in priority countries such as Peru, Haiti, Cameroon, and Sudan.

- The Developing Countries

Of greatest significance is the continuing interest and attention being given to conservation of biological diversity by national governments and the public in developing countries. Information compiled by the International Institute for Environment and Development (IIED) and IUCN, indicates that national conservation strategies are completed or underway in 21 countries (11 in Africa, 9 in Asia/Near East/N. Africa, 1 in Latin America). Similar reports, such as environmental or natural resources profiles or state-of-the-environment reports that address conservation issues, are completed or in progress, some with support from A.I.D., in 28 countries (7 in Africa, 3 in Asia/Near East/N. Africa, and 18 in Latin America). While in some instances, it is too early to assess the final influence of these analyses on national policy and action, there are significant signposts of progress. Several examples are cited here.

In the process of preparing a National Conservation Strategy (NCS) for Nepal, 20 background papers have been completed and reviewed involving 40 Nepalese experts from government and non-governmental organizations. Village, district and regional meetings have been held involving tenant farmers, land owners, elected officials, youth, farmer and women's organizations in order to help assure that the NCS is a vital part of people's thinking at all levels. This activity is jointly supported by A.I.D., IUCN and Canadian CIDA.

In addition, work continues on national conservation strategies in Sri Lanka and the Philippines and in a number of countries in

Africa. These are specific examples that demonstrate the potential for continuing progress in an area that is both complex and seemingly difficult to justify in countries where there are immediate problems of human poverty, limited access to productive agricultural land, disease, and malnutrition. Most of these conservation efforts recognize that national commitment and the involvement of local people are keys to sustainable development and conservation of natural resources.

1.4 New Amendments to the Foreign Assistance Act on Biological Diversity and Tropical Forests

In 1986, further amendments to the Foreign Assistance Act (FAA, as amended) were passed by Congress to authorize A.I.D. to play a more significant role in efforts to conserve biological diversity and tropical forests. One set of amendments (Sec. 118) concerning tropical forests directs the USG to make tropical forest conservation a high priority by sponsoring such activities as training forestry managers and encouraging reforestation and sustainable agriculture projects. These amendments also require that assistance be withheld for those projects that would destroy or degrade tropical forest areas.

A second set of amendments (new Section 119) require A.I.D. to allocate \$2.5 million for additional new activities during FY 1987 that assist developing countries with the conservation of biological diversity. The amendments also require each A.I.D. Mission to analyze actions necessary to conserve biological diversity in the planning of their overall assistance programs. Additional provisions (Section 119(e)) require that A.I.D. projects include close consultation and involvement with local people and be accomplished through PVO's and NGO's active in the country where the project is located.

These new amendments reinforce existing provisions of the FAA which require A.I.D. to give adequate consideration to key environmental and natural resources issues in project planning and execution. These actions strengthen A.I.D.'s programs in these areas and support the Agency's efforts to establish a productive dialogue with host countries on the conservation of biological diversity and tropical forests.

1.5 Implementing the New Amendments

Among the provisions of the new FAA amendments on biological diversity is a requirement that A.I.D. allocate \$2.5 million of its FY 1987 appropriations for new activities described in Section 119(b). These include assistance to developing countries

in protecting and maintaining wildlife habitats and the development of sound wildlife management and plant conservation programs. Special efforts are to be made to establish and manage wildlife sanctuaries, reserves, and parks; to enact and enforce anti-poaching measures, and to identify, study and catalog animal and plant species, especially in tropical environments.

To implement this new Congressional mandate, A.I.D. took two significant steps. It established an internal Biological Diversity Working Group to oversee the allocation and utilization of these funds. The Group developed administrative and ecological criteria for consideration in evaluating biological diversity projects under the \$2.5 million earmark and summarized the types of activities which meet the objectives of Section 119(b). These are set forth in Appendices C1 and C2.

The Working Group, drawing on activity proposals from A.I.D.'s regional and central bureaus, is recommending a set of activities for early implementation under the FY 1987 Congressional earmark.

Secondly, A.I.D. took the leadership to stimulate broader support for biological diversity activities in developing countries. Discussions are underway among A.I.D. and U.S. private foundations, industrial organizations, and conservation and environmental organizations to increase the overall resources devoted to biological diversity work in developing countries, as well as to have them join with each other and with A.I.D. in collaborative support of in-country activities. Establishment of an informal "biological diversity consultative group" among donor and funding organizations is being pursued. Such a group would serve as a vehicle for discussion of the programmatic needs and emphasis of donor-supported activities, coordination of support for work with developing countries, stimulation and enhancement of levels of support, and as a forum for discussing program and project effectiveness and impact. An initial meeting of prospective consultative group members, to be hosted by A.I.D., is expected to occur in the spring of 1987.

2. U.S. GOVERNMENT ACTIVITIES ON BIOLOGICAL DIVERSITY

2.1 Scope and Nature of FY 1986 Activities

Section 119(d) of the FAA requires reporting annually on those actions taken to implement Section 119(b) which calls for the protection and maintenance of wildlife habitat and the development of sound wildlife management and plant conservation programs. It also requires reporting on actions taken to implement the specific policies and programs formulated in the

U.S. Strategy on the Conservation of Biological Diversity: An Interagency Task Force Report to Congress, (hereafter, the Strategy) which was required by Section 119(c).

The Strategy makes clear that effective conservation of biological diversity in developing countries is a complex problem that will require a variety of actions by various USG agencies and other organizations that go beyond the requirements listed in Section 119(b).

2.1.1 The New Reporting Framework

Because of the complex nature of biological diversity, the many threats to it, and the variety of agency activities which relate to some facet of the issue, this report provides a comprehensive summary of all USG activities related both to Section 119(b) and to the overall recommendations of the Task Force as formulated in the Strategy.

To facilitate this, relevant USG activities are reported for the first time according to the framework shown in Table I of Appendix A. This framework is intended to accomplish two objectives. First, it allows for classification of activities consistent with Section 119(b), which calls for those activities with a focus on protection, and with the recommendations of the Strategy concerning the types of actions necessary to help developing countries with this issue (e.g., policy dialogue, education/public awareness, etc.).

Second, the framework also allows reporting on actions that help address the biological diversity issue, but do not focus solely on the activities listed in Section 119(b). For example, activities with a focus on enhancing agricultural, forest, range, or fisheries production often contain components related either to overall natural resources and environmental management or to the identification, collection, and maintenance of germplasm. Occasionally, production-oriented activities contain protection components. Consequently, such multifaceted production activities are included here, if they contain a component related to protection, overall natural resources, or environmental management, or germplasm conservation.

This new framework employs five major types of activities as formulated in the Strategy (e.g. Policy Dialogue/Strategic Planning; Education/Public Awareness; Institution Building/Training; Research; and Resource or Site-specific Management). The framework also employs, for the first time,

four foci of activities depending on what facet of the biological diversity issue is being addressed (e.g. Protection; Natural Resources/Environmental Management; Enhanced Production; or Germplasm Conservation).

Within this framework, all reported activities are assigned a code based first on the focus of the activity (e.g. A = Protection, B = Natural Resources and Environmental Management, etc.) and second, on the type of activity (e.g. I = Policy Dialogue/Strategic Planning, II = Education/Public Awareness, etc.).

For example, an activity intended to establish a policy dialogue on parks and protected areas would be assigned a code of A.1.I. Similarly, research activities on enhancing forestry production would be assigned a code of C.2.IV, and so on. The central, arabic numeral in each code (e.g. the "1" in A.1.I.) represents a finer breakdown of the focus of the activity. For example, under the broad focus of protection (A), there are the sub-categories of protected areas (1); wildlife and plant management programs (2); and species studies (3).

These codes appear on the detailed BioDiversity Activity Reports compiled in Appendix B and are used to assign activities to the appropriate framework categories for the activity and funding summary tables in Appendix A.

Many activities are multifaceted, e.g. they have more than one focus or entail more than one type of action. In these cases the activity is assigned all appropriate codes. Table 2 of Appendix A provides a set of definitions which were used to apply this framework to those activities reported by the various agencies.

2.1.2 Summary of USG Agencies' Activities and Expenditures by Framework Categories

Table 3, Appendix A, is an overall tabulation of the number of FY 1986 activities and components of multifaceted activities of USG agencies by the framework categories discussed in the preceding section. As the table shows, the bulk of the 345 activities or components were in the area of institution building and training (112). The predominant focus was on overall natural resources and environmental management (136). However, a significant number of activities or components of activities were focused on protection (117), with an emphasis on institution building and training (38), and research and inventories (32).

As might be expected, relative funding levels (Table 4, Appendix A) corresponded to the areas of emphasis on institution building and training (\$5,348,400) and the predominant focus on natural resources and environmental management (\$9,029,251). Identifiable funding of \$3,954,319 was for activities with a focus on protection, the bulk of this (\$2,357,904) being for institution building and training.

Because Peace Corps activities essentially involved the provision and support of volunteers to work on projects supported from other sources, Peace Corps Volunteer Years (PCVs) and funding are not included in Tables 3 or 4. Nevertheless, it should be noted that the Peace Corps estimates nearly 1,180 PCVs were devoted to framework categories during FY 1986 (Table 26) at a total cost of \$29,494,000 (Table 27). This includes approximately 80 PCVs for protection related activities at a cost of \$1,833,000.

It must be emphasized that the above figures are conservative. In addition, FY 86 funding for multifaceted activities with two or more components that fit within the framework came to a total of \$43,794,877. Of this total it is estimated that approximately 50% was for biological diversity related activities that fit within the general framework definitions (Table 4, Appendix A); however, it is not presently possible to accurately allocate activities to the various framework categories.

To provide the reader a better understanding of the nature and scope of USG agencies' activities related to the conservation of biological diversity in developing countries, each agency's activities are briefly summarized in the following sections (2.2 - 2.13). Each summary provides an overview of the aggregate pattern of that agency's activities as revealed by the activity summary tables in Appendix A. These summaries also highlight the agency's activities that focus on protection and reference the appropriate detailed BioDiversity Activity Reports in Appendix B.

2.2 A.I.D.

Table 5 summarizes the FY 1986 activities of A.I.D. related to the conservation of biological diversity. Of the 219 activities or components of activities within the framework, 69 were in the area of institution building and training, and 109 were focused on natural resources and environmental management. Thirty-eight separate activities or components of activities were focused on protection with a preponderance of these (11) being in the area of institution building and training. Funding levels reflected this overall emphasis on institution building and training (\$4,202,624) and natural resources and environmental management (\$7,452,347). Protection focused activities accounted for \$2,600,624, the bulk of which (\$1,578,624) was for institution building and training.

Most of A.I.D.'s activities are funded through country programs administered by field missions which are divided into geographic regions represented by three regional bureaus: Africa, Asia and the Near East, and Latin America and the Caribbean. Other programs are funded from the central bureaus in Washington (e.g. Science and Technology, Food and Voluntary Assistance, and the Science Advisor's Office, etc.). Consequently, A.I.D. activities related to biological diversity are best reported, in detail, on a bureau by bureau basis.

2.2.1 AID/Africa (AFR)

Table 7 summarizes the FY 1986 activities of AID/AFR Missions related to the conservation of biological diversity. Funding for these activities is summarized in Table 8. Thirty-four activities reported by AFR Missions fit within the framework. The bulk of activity was focused on natural resources and environmental management and on enhanced production. Six multifaceted activities had components with a focus on protection. These included one project in Zimbabwe (AID/AFR-27)¹ which provided local currency support to construct housing and purchase vehicles and boats for the National Parks and Wildlife Unit. This activity was aimed at anti-poaching measures to protect the black rhino. Other multifaceted project components related to biological diversity included inventories of endangered forest species in Burundi as part of two overall agroforestry projects (AID/AFR-2,3); environmental assessments of the impacts of land and water resources development on wildlife, fisheries, forest and savanna resources in Somalia (AID/AFR-22); and the establishment of a national environmental education program at a game reserve in Swaziland (AID/AFR-26).

In addition to the specific field activities listed above, the Bureau for Africa is in the process of developing a comprehensive natural resources management plan for Sub-Saharan Africa. The purpose of the plan is to better articulate and coordinate A.I.D.'s approach to Sub-Saharan Africa's environmental and natural resources concerns. Although its strategic emphasis will continue to be support to sustainable agricultural productivity and rural development, the plan will also define the Bureau's

¹Codes given in parentheses in the text refer to BioDiversity Activity Report numbers. For details on this activity in Zimbabwe, see the report marked AID/AFR-27 in Appendix B.

program for the maintenance of both biological and genetic diversity within this region.

The plan is based on a companion technical analysis volume developed jointly with the Bureau for Science and Technology. The purpose of this analysis was to 1) identify major natural resources issues facing Sub-Saharan Africa, 2) assess their current status, trends and priority areas of concern, 3) determine on-going efforts by donor groups to address these issues and 4) determine possible activities that A.I.D. or other donor groups could undertake with host countries to effectively deal with each of the issue areas. The decline in biological and genetic diversity was one of the six major issues identified.

The draft plan and companion technical analysis are still in draft form subject to both further review and revision. It is anticipated that final versions will be released in FY 1987.

The Africa Bureau has also continued to fund a natural resources advisor who spent a considerable portion of his time on conservation issues. The regional office in Nairobi, Kenya also maintained its support for a regional environmental advisor.

2.2.2 AID/Asia and the Near East (ANE)

Table 9 summarizes the FY 1986 activities of AID/ANE Missions related to the conservation of biological diversity. Funding for these activities is summarized in Table 10. Nineteen activities reported by ANE or its Missions fit within the framework. These activities are concentrated in the areas of natural resources and environmental management. Four multifaceted activities had components with a focus on protection. These included the establishment of four nature reserves in Sri Lanka and the provision of associated infrastructure, technical assistance, and training (AID/ANE-6). Also included is the Emerging Problems of Development II Project (AID/ANE-8) in Thailand which supported the preparation of a comprehensive management plan for Tarutao National Park. Other multifaceted activities with protection components included the regionally funded Program Development and Support Project (AID/ANE-10) which supported a study on the status and management needs of protected areas in Thailand; and support for a Participating Agency Service Agreement (PASA) with the U.S. Fish and Wildlife Service for a matching small grants program on biological diversity in the Near East and Arid South Asia (AID/ANE-11). Details of this latter program are reported under the Fish and Wildlife Service.

In FY 1986, ANE supported a AAAS fellow with a background in environmental sciences and added a direct-hire forester, both of whom have spent a considerable portion of their time on

biological diversity and tropical forest issues. In addition, the Mission in Thailand under contract added a full-time natural resources advisor to its staff, resulting in increased conservation oriented activities.

2.2.3 AID/Latin America and the Caribbean (LAC)

Table 11 summarizes the FY 1986 activities of AID/LAC or its Missions related to the conservation of biological diversity. Funding for these activities is summarized in Table 12. Twenty-six activities of LAC Missions or the Bureau fell within the framework. Of these, 7 had components focused on protection. These include a major Watershed Management Project (AID/LAC-22) in Panama which included the preparation of a National Conservation Strategy and the protection of various tropical forest areas in three critical watersheds. Other multifaceted activities with protection components include the EDUNAT-II Project (AID/LAC-8) which supported general conservation education efforts in Ecuador; and the Forestry Sector Development Project (AID/LAC-9) which supported the development of a management plan for one natural forest near Quito containing endangered species.

Two activities were focused solely on protection. The mission in San Jose Costa Rica approved that Government's request to use P.L. 480 funds to upgrade the management of Cano Negro wildlife Refuge (AID/LAC-6).

A second activity with a focus on protection was a grant (AID/LAC-23) from the Regional Bureau to the Nature Conservancy International for the strengthening and expansion of the Conservancy's network of Conservation Data Centers in the Region.

The LAC Bureau also funded a one-year AAAS fellowship for a scientist with a background in natural resources management supplementing their professional staff and continued to support the work of three regional environmental advisors, one each for the Caribbean, Central American and South American regions. In addition to their other duties, these professionals assist missions in identifying projects with biological diversity components.

2.2.4 AID/Central Bureaus and Offices

A.I.D.'s central bureaus' and offices' FY 1986 activities related to biological diversity are summarized in Table 13. Funding for these activities is summarized in Table 14. Two central bureaus (e.g. Science and Technology (S&T) and Food and Voluntary

Assistance (FVA)) reported 14 activities that fit within the framework. Of these, two projects and one activity focused exclusively on the protection of biological diversity. The Biological Diversity Conservation in Development Project (AID/Central Bureaus-1) is providing a technical advisor on biological diversity from FWS to A.I.D.'s Office of Forestry, Environment, and Natural Resources in the Bureau for Science and Technology. The project is also developing a biodiversity awareness video for use in A.I.D. overseas Missions, in A.I.D. training programs, and in consultations with developing country officials.

Also included in the activities of this project is modest funding for a World Wildlife Fund-U.S. (WWF) project in Madagascar to develop long term management programs, involving local people, for two protected areas in that country. This support will be matched by WWF and by the Government of Madagascar and the A.I.D. Mission through use of P.L. 480 currencies.

A grant from AID/S&T to The Nature Conservancy International (AID/Central Bureaus-5) provided for 50% matching funds for the first year costs of two new Conservation Data Centers (CDC's) in Latin America. This funding will help establish a CDC in Bolivia and one other country yet to be determined. It also provides for feasibility studies for the possible establishment of CDC's in Asia and Africa.

Another project focused exclusively on the protection of biological diversity is the continuing Wildlands and Human Needs Project (AID/Central Bureaus-8) of WWF-US. This project focuses on developing solutions to meeting the needs of local populations in conjunction with protected areas establishment and management in 13 countries in Latin America and Africa. AID/FVA is providing a matching grant for this program.

In addition to the above, four multifaceted projects have conservation components. These include the Environmental Planning and Management Project (AID/Central Bureaus-3), which continued to support the development of National Conservation Strategies in Nepal and Sri Lanka and Country Environmental Profiles in a number of countries. Also included are the Coastal Resources Management Project (AID/Central Bureaus-4), the Development Strategies for Fragile Lands Project (AID/Central Bureaus-6), and the Forest Resources Management Project (AID/Central Bureaus-2).

Other related small grants have been provided to the World Wildlife Fund-U.S./Conservation Foundation program on providing

information to selected developing countries on policy and management options for the management of hazardous wastes and toxic substances; to assist in the preparation of the 1987 edition of the World Resources Report of the World Resources Institute and IIED; and for the development of training materials by the East West Center in new methods of applying economic cost/benefit analysis to environmental and natural resources management.

Another important component of A.I.D.'s Central Bureaus' Programs involves research. The Office of the Science Advisor runs several collaborative research small grants programs (AID/Central Bureaus-7) aimed at addressing critical research needs in disciplines related to international development (e.g. agriculture, medicine, etc.). During the past two years, these programs have provided increased attention and support to research questions related to biological diversity. The various projects thus supported have included the integrated management of certain natural pine-dominated ecosystems in the Philippines, a number of integrated pest management/biological control studies and various efforts at better characterization and utilization of wild germplasm for a variety of important agricultural species.

The remaining projects were focused primarily in the areas of natural resources and environmental management and enhanced production.

Technical staff in environment and natural resources in the Central Bureaus was supplemented by providing support for five AAAS fellows with technical expertise in forestry, marine sciences, anthropology, genetics, and entomology. In addition a new temporary position was established to coordinate environmental review of multilateral development bank projects.

2.3 Department of State

The Department of State actively promotes the conservation of biological diversity because of the impact of environmental degradation on interrelations between nations and the need for a coordinated effort to prevent the elimination of species. The Department, together with Foreign Service posts abroad, facilitates the international programs and activities of the U.S. Fish and Wildlife Service and the National Park Service of the Department of the Interior, other U.S. Government departments and agencies, and international and non-governmental organizations. The Department also promotes the conservation of biological diversity in multilateral organizations, works with other governments to form bilateral agreements which protect the

world's wealth of living resources, and exchanges with foreign governments information pertaining to the conservation and protection of the earth's wildlife.

The U.S. Man and the Biosphere Program (MAB) is administered in the State Department. It is directly concerned with the management of man's interactions with an array of ecosystems (e.g., tropical forests, arid lands, polar regions). MAB is best known for its international network of "Biosphere Reserves"--samples of the world's major ecosystems protected for research and monitoring purposes. During FY 1986, major research and other initiatives related to biological diversity included research on the following topics: the restoration of tropical ecosystems, the coupling of remote sensing technologies to ecological studies, on land-use impacts on aquatic ecosystems, the roles of indigenous peoples in the management of national parks and reserves, biogeographical classification of macro-reserves in the U.S. and of coastal/marine areas, and background pollution monitoring investigations. Table 15 summarizes the Department's FY 1986 activities.

2.4 Department of Agriculture (USDA)

USDA's FY 1986 biodiversity activities were all in the area of genetic resources (Table 16). These included numerous exchanges of germplasm with other countries (USDA-1, USDA-3), germplasm collecting trips (USDA-5), and training related to germplasm data bank management in collaboration with the International Board on Plant Genetic Resources (USDA-2).

2.5 Department of Commerce

Department of Commerce FY 1986 biodiversity activities were conducted by the National Oceanic and Atmospheric Administration's (NOAA) National Ocean Service (NOS) and the National Marine Fisheries Service (NMFS). These included 2 activities with a focus on protection (Table 17). The Western Atlantic Symposium (Commerce-3) is a periodic meeting of various nations aimed at coordinated national and international management and protection of sea turtle stocks.

The International Marine Protected Area Seminar (Commerce-4) is a companion training course to the successful National Park's Seminar. The Marine Protected Area Seminar brings managers from other countries for intensive short term training related to U.S. programs in the area of marine resources management and marine protected areas.

2.6 Department of the Interior

2.6.1 National Park Service (NPS)

The NPS was involved in some 37 activities related to the conservation of biological diversity in developing countries during FY 1986 (Table 18). Of these, 28 focused on protection. Another nine activities focused on the areas of overall natural resources and environmental management. By far, most of these activities related to institution building and training. Funding for these activities is summarized in Table 19. More information on the extensive NPS activities is given in the BioDiversity Activity Reports in Appendix B.

2.6.2 U.S. Fish and Wildlife Service (FWS)

The FY 1986 biodiversity activities reported by FWS (Table 20) include the specific grants under the FWS/AID/ANE Biological Diversity Small Grants program described in Section 2.2.2 above (See AID/ANE-11). Although A.I.D. funding (\$174,000) for these activities was noted earlier, a central feature of this program is that AID funding must be matched from other sources. Consequently, the overall funding for these activities is shown in the FWS BioDiversity Activity Reports in Appendix B.

Of the six grants made under this program in FY 1986, four had a focus on protection. The largest grant, however, focused on environmental education in India. In this case \$33,000 of A.I.D. funding drew \$366,800 in P.L. 480 funds from FWS controlled excess foreign currencies. The project is producing a series of videos on various aspects of environmental management to be shown on India's public television network.

Other FWS activities included a variety of projects in Latin America under the Western Hemisphere Convention, and a number of P.L. 480 supported activities in India and Pakistan. Funding for FWS activities is summarized in Table 21.

2.7 Department of the Treasury

The Department of the Treasury, through its interaction with the multilateral development banks (e.g. World Bank) was involved in two activities related to biological diversity during Fy 1986 (Table 22). Through its representatives to the Banks, Treasury continued to push for strengthening the environmental aspects of the various banks' projects. Treasury also addressed to the World Bank and the African Development Bank a policy paper

regarding environmentally oriented principles to be adopted in preparing and implementing livestock projects in Africa. This measure was undertaken due to concern over the history of the sustainability of such projects and their potential for negative impacts on rangelands and wildlife.

2.8 Environmental Protection Agency (EPA)

EPA had one biodiversity related activity during FY 1986 (Table 23). This was the provision of technical assistance to Mali on the use of appropriate pesticides for grasshopper control programs. Although EPA was involved in a number of other international activities, only the above activity involved a developing country.

2.9 National Science Foundation (NSF)

NSF supported 13 research projects related to biological diversity during FY 1986 (Table 24). Eight of these were focused on basic taxonomic/systematics or basic ecological studies with direct relevance to the protection of biological diversity. Another two projects were related to overall natural resources/environmental management. Three projects were related to enhanced productivity of tropical environments.

2.10 Overseas Private Investment Corporation (OPIC)

OPIC insured two activities in the areas of environmental management and enhanced forest and fisheries production during FY 1986 (Table 25). No activities were reported in the area of protection.

2.11 The Peace Corps

The Peace Corps had the equivalent of 1,180 volunteer-years devoted to activities that fit within the reporting framework (Table 26). A volunteer year is the equivalent of one Peace Corps volunteer in the field for one year. Because most volunteers' assignments involve a range of duties and activities, the number of volunteer-years is not necessarily equal to the number of projects in which a volunteer was active.

At an estimated cost of \$25,000 per volunteer-year, Peace Corps spent some \$29,494,000 during FY 1986 on activities within the framework (Table 27). Of these, a total of approximately 80 volunteer years costing \$1,833,000 were in protection-focused activities.

The Peace Corps provided a very extensive and detailed report on their FY 1986 activities. A copy of that report is being provided separately.

2.12 Smithsonian Institution

The Smithsonian Institution reported two FY 1986 activities (Table 28). This included the National Forum in BioDiversity (Smithsonian-1) cosponsored with the National Academy of Sciences and described in Section 1.3.

Major themes to emerge from the Forum included the perception by a group of eminent ecologists that the projected loss of species over the next century ranks second only to nuclear winter in its potential effects on man and the natural world. Another emerging theme is the recognition by various interests that conservation efforts, in large part, face the same challenges as the international development community; namely, how economic development can be undertaken and sustained in the tropical world with its burgeoning human population and its fragile environment.

Although the Forum did not lead to any specific agenda for new actions or to any easy solutions, the event did serve to raise public awareness and foster an atmosphere for dialogue among professions and interest groups.

The NAS/Smithsonian Forum was, as one organizer put it, "an exercise in consciousness raising". Though the event undoubtedly achieved this goal, perhaps its major contribution was in the broadened perspective on the issue that emerged from the proceedings. This is especially true with regard to the relationship of conservation and development and to understanding the root causes of, and the real solutions to, the extinction crisis. For perhaps the first time, a major conservation meeting led to the recognition that the root cause of species loss, particularly in the tropics, is not so much intentional commercial exploitation, but rather a rapidly growing human population trying to meet basic human and economic needs. Further, the conservation community itself is beginning to recognize that, unless means can be found to meet these legitimate human needs, conservation itself will not succeed.

A parallel theme is an emerging recognition that development which is not environmentally sound, and is therefore not sustainable, is unwise simply on economic grounds. Further, there is growing recognition from the development community that the total loss of any wild habitat or any wild species may represent significant opportunity costs that society may not wish to bear. This is best reflected in the World Bank's recently adopted Operational Policy on Wildlands.

This broadening perspective, coupled with a growing sense of urgency by biologists over the perceived rate of habitat and species loss, serves to underscore that conservation and development are mutually dependent and that efforts in both areas must be planned and executed together if either are to succeed.

In addition to the Forum, the Smithsonian, in collaboration with the Department of State's Man and the Biosphere Program, launched a joint Biological Diversity Program (Smithsonian-2) to help develop the capacity of developing country personnel and institutions to undertake basic taxonomic and ecological inventories.

2.13 U.S. Information Agency (USIA)

USIA's FY 1986 activities are summarized in Table 29. Funding is summarized in Table 30. USIA had seven programs, all multifaceted education and/or training programs, which supported students or participants in areas covered by the framework. These included the Hubert H. Humphrey Program (USIA-1) for mid-career professionals (five in the areas of forestry, agroforestry, environmental planning, natural resources and wildlife conservation); the Latin American Scholarship Program (USIA-5; four grantees in the areas of botany, mammalian taxonomy, ecology and plant conservation); and the Fulbright Program (USIA-7). The Fulbright program is by far the largest program and, during FY 1986 the program supported a total of 58 scholar exchanges that fit within the framework. Of these, five were in areas focused on protection, 32 were in the areas of natural resources and environmental management, 21 in areas related to enhanced production and three in the area of genetic resources.

A REPORT ON
PROGRESS IN CONSERVING BIOLOGICAL DIVERSITY
IN DEVELOPING COUNTRIES
FY 1986

PRESENTED TO THE CONGRESS OF THE UNITED STATES

by

The Agency for International Development
on Behalf of the
Interagency Task Force on Biological Diversity
In Implementation of Section 119 of the
Foreign Assistance Act

PART 2 - Appendices A, B, and C

February 1987

APPENDIX A

Activity and Funding Summary Tables
by Agency

Interpreting Activity and Funding Tables

Two tables are used for most agencies, one to summarize the agencies' activities, another to summarize funding. Where possible, activities and funding are combined on a single table. The tables employ the overall reporting framework as illustrated in Table 1 and discussed in Section 2.1.1. For simplicity, subcategories (e.g., agriculture, forestry, etc.) for the focus of projects are omitted here and throughout the summary tables. However, the interested reader may find this information in the BioDiversity Activity Reports in Appendix B.

Activity Tables - The first table for most agencies is a summary of the agencies' activities. In these tables, the numbers listed in each category are the index numbers to the BioDiversity Activity Reports contained in Appendix B. These reports contain detailed information on each activity and are compiled by agency in the same sequence as the agencies are discussed in the text. Consequently, a "1" on the activity summary table for A.I.D.'s Bureau for Africa (AFR) is the first BioDiversity Activity Report in Appendix A and bears the code AID/AFR-1.

The BioDiversity Activity Report index number is listed in the activity summary table in that category that best describes the type of activity and its focus. Index numbers for multifaceted activities (e.g., more than one type or focus) appear in each appropriate category. Therefore, to avoid multiple counting, total numbers of activities are not given on individual tables. However, total numbers of activities and components of multifaceted activities are given in the overall USG summary table (Table 3) and the overall A.I.D. summary table (Table 5).

Funding Tables - Following the summary table of activities for most agencies is a summary table of corresponding funding. In these tables, the figures represent the total of identifiable funding for those activities listed in that category. All figures are in actual dollars except where noted.

In some cases, the actual figure in each framework category represents an accurate total for all activities in that category. In other cases, the figure may represent only that funding that was identifiable in that category.

In the case of multifaceted activities, it was often impossible to correctly allocate funding among the activities' components. Consequently, totals for multifaceted activities are only given as a footnote in the funding tables. The few exceptions to this are noted where they occur. It should be noted that this aggregate figure for multifaceted activities is based, in most instances, on the overall cost of the activity, much of which may not fit within the reporting framework. Where activities and funding are combined on a single table, the above format is still retained with BioDiversity Activity Report index numbers given first and the corresponding funding figures preceded by a dollar sign (\$).

This rather complex system is intended to assure that the interested reader may find "where the numbers came from" and not simply be deluged by a polyglot of meaningless summary statistics.

TABLE 1

Framework for Reporting USG Agencies' Activities Related to the
Conservation of Biological Diversity in Developing Countries

<u>Focus of Activity</u>	<u>Type of Activity</u>				
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>
	Policy Dialogue/ Strategic Planning	Education/ Public Awareness	Institution Building/ Training	Research/ Inventories	Resource-or Site-Specific Management
<hr/>					
A. Protection					
1. Protected Areas					
2. Wildlife/Plant Management					
3. Species Studies					
<hr/>					
B. Management					
1. Natural Resources					
2. Environmental					
<hr/>					
C. Enhanced Production					
1. Agriculture					
2. Forestry					
3. Range/Livestock					
4. Fisheries					
<hr/>					
D. Germplasm Conservation					
<hr/>					

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Table 2

Definitions used in the Classification of USG Activities Related to the Conservation of Biological Diversity.

Type of Activity

I. Policy Dialogue: Actions that motivate or assist developing country governments to establish policies and promulgate plans for the implementation of policies. Also includes strategic planning efforts.

II. Education/Public Awareness: Actions that provide degree-oriented education to individuals or that promote public understanding of the issue.

III. Institution Building/Training: Actions that help initiate or enhance developing country institutions, both public and private, or which provide training to developing country personnel.

IV. Research/Inventories: Actions that relate to basic resource inventories and/or basic or applied research in relevant disciplines.

V. Resource or Site-Specific Management: Actions that involve direct on-the-ground management for a specific resource or a specific site.

Focus of Activity

A. Protection: Activities related to the establishment or management of protected areas; the initiation or enhancement of wildlife/or plant management programs, including anti-poaching measures; or the study, identification and cataloging of wild plant and animal species.

B. Natural Resources and Environmental Management:

Activities related to maintaining or enhancing renewable natural resources (e.g. soils, water, etc.), or maintaining important environmental parameters (e.g. air and water quality; or the control of harmful substances (e.g. pesticides, toxic substances).

C. Enhanced Production Any action within the sectors of (1) agriculture, (2) forestry, (3) range/livestock, or (4) fisheries which enhances the sustainable productivity of areas utilized within these sectors.

D. Germplasm Conservation: Actions which are geared towards the identification, collection, or maintenance of germplasm for agriculture, forest, range, and fisheries production and conservation.

TABLE 3

Number of USG Agency Activities and Components of Activities
 Related to the Conservation of Biological Diversity in Developing Countries: FY 1986^{1/2/}

<u>Focus of Activity</u>	<u>Type of Activity</u>					TOTALS
	<u>I</u> Policy Dialogue/ Strategic Planning	<u>II</u> Education/ Public Awareness	<u>III</u> Institution Building/ Training	<u>IV</u> Research/ Inventories	<u>V</u> Resource-or Site-Specific Management	
A. Protection	19	14	38	32	14	117
B. Natural Resources/ Environmental Mgt.	23	26	51	19	17	136
C. Enhanced Production	5	9	14	21	16	65
D. Germplasm Conservation	1	2	9	14	1	27
TOTALS	48	51	112	86	48	345

^{1/}The numbers in this table represent the total number of USG activities as components of multifaceted activities within each framework category. The total of 345 activities or components includes significant multiple counting of individual activities.

^{2/}This table does not include estimates of Peace Corps Volunteer Years (PCVs). Please refer to Table 26 for these estimates.

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TABLE 4

Identifiable USG Agency Funding for Activities
Related to the Conservation of Biological Diversity in Developing Countries: FY 1986^{1/3/}

<u>Focus of Activity</u>	<u>Type of Activity</u>					TOTALS
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>	
	Policy Dialogue/ Strategic Planning	Education/ Public Awareness	Institution Building/ Training	Research/ Inventories	Resource-or Site-Specific Management	
A. Protection	\$ 385,150	\$ 290,770	\$2,357,904	\$ 807,628	\$ 403,637	\$ 3,954,319
B. Nat. Res./Envn. Management	\$2,913,680	\$ 995,688	\$2,463,536	\$1,778,347	\$ 878,000	\$ 9,029,251
C. Enhanced Production	--	\$ 765,722	--	\$1,377,927	--	\$ 2,143,649
D. Germplasm Conservation	--	\$ 50,286	\$ 527,000	\$1,177,352	--	\$ 1,754,638
TOTALS	\$3,298,830	\$2,102,466	\$5,348,440	\$5,141,254	\$1,281,637	\$18,881,857 ^{2/}

^{1/} These figures represent only those amounts of funding that can be clearly identified as falling within each category. Because of variability in reporting, these figures can only be construed as minimum estimates.

^{2/} In addition to the above total, FY 1986 funding for multifaceted activities with components in two or more of the above framework categories = \$ 43,794,887, of which slightly more than 50 percent is estimated as allocated to framework activities.

^{3/} Figures on Peace Corps' funding (primarily in the form of PCV salaries) are not included in these totals. Please refer to Tables 26 and 27 for these estimates.

TABLE 5

Number of A.I.D. Activities and Components of Activities
 Related to the Conservation of Biological Diversity in Developing Countries: FY 1986^{1/}

<u>Focus of Activity</u>	<u>Type of Activity</u>					TOTALS
	<u>I</u> Policy Dialogue/ Strategic Planning	<u>II</u> Education/ Public Awareness	<u>III</u> Institution Building/ Training	<u>IV</u> Research/ Inventories	<u>V</u> Resource-or Site-Specific Management	
A. Protection	7	3	11	9	8	38
B. Natural Resources/ Environmental Mgt.	19	20	39	15	16	109
C. Enhanced Production	5	5	14	18	15	57
D. Germplasm Conservation	--	--	5	10	--	15
TOTALS	31	28	69	52	39	219

^{1/} The numbers in this table represent the total number of AID activities as components of multifaceted activities within each framework category. The total of 219 activities or components includes significant multiple counting of individual activities.

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TABLE 6

Identifiable A.I.D. Funding for Activities
Related to the Conservation of Biological Diversity in Developing Countries: FY 1986^{1/}

<u>Focus of Activity</u>	<u>Type of Activity</u>					TOTALS
	<u>I</u> Policy Dialogue/ Strategic Planning	<u>II</u> Education/ Public Awareness	<u>III</u> Institution Building/ Training	<u>IV</u> Research/ Inventories	<u>V</u> Resource-or Site-Specific Management	
A. Protection	\$ 337,000	--	\$1,578,624	\$ 310,000	\$ 375,000	\$ 2,600,624
B. Nat. Res./Envn. Management	\$2,883,500	\$ 110,000	\$2,097,000	\$1,483,847	\$ 878,000	\$ 7,452,347
C. Enhanced Production	--	--	--	\$ 936,927	--	\$ 936,927
D. Germplasm Conservation	--	--	\$ 527,000	\$1,077,352	--	\$ 1,604,352
TOTALS	\$3,220,500	\$ 110,000	\$4,202,624	\$3,808,126	\$1,253,000	\$12,594,250

^{1/} These figures represent only those amounts of funding that can be clearly identified as falling within each category. Because of variability in reporting, these figures can only be construed as minimum estimates.

In addition to the above total, FY 1986 funding for multifaceted activities with components in two or more of the above framework categories = \$43,520,687 of which slightly more than 50% is estimated as allocated to framework activities.

TABLE 7

AID/Africa Activities
 Related to the Conservation of Biological Diversity in Developing Countries: FY 1986^{1/}

<u>Focus of Activity</u>	<u>Type of Activity</u>				
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>
	Policy Dialogue/ Strategic Planning	Education/ Public Awareness	Institution Building/ Training	Research/ Inventories	Resource-or Site-Specific Management
A. Protection	28	--	26,27	2,3,22,27	27
B. Nat. Res./Envn. Management	16,17,21	1,6,7,11,14, 16,21,28	1,6,7,8,9,11 13,15,18,19, 20,23,24,28, 30	12,20,21,22, 23,29,30	4,5,10,25
C. Enhanced Production	16	11,14,16	1,15,19,25, 26	7,11,16,24, 25,26,32,33, 34	2,3,4,5,7, 11,23,25,26
D. Germplasm Conservation	--	--	8	11,12,31,32 33,34	--

^{1/} The numbers in each category represent the index numbers of the detailed Biodiversity Activity Reports contained in Appendix B.

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TABLE 8

AID/Africa Funding
 Related to the Conservation of Biological Diversity in Developing Countries: FY 1986

<u>Focus of Activity</u>	<u>Type of Activity</u>					TOTALS
	<u>I</u> Policy Dialogue/ Strategic Planning	<u>II</u> Education/ Public Awareness	<u>III</u> Institution Building/ Training	<u>IV</u> Research/ Inventories	<u>V</u> Resource-or Site-Specific Management	
A. Protection	\$ 32,000	--	\$ 360,624 ^{1/}	\$ 10,000	--	\$ 402,624
B. Nat. Res./Envn. Management	\$1,000,000	--	\$ 22,000	--	\$ 80,000	\$1,102,000
C. Enhanced Production	--	--	--	--	--	--
D. Germplasm Conservation	--	--	--	\$ 70,000	--	\$ 70,000
	\$1,032,000	--	\$ 382,624	\$ 80,000	\$ 80,000	\$1,574,624 ^{2/}

^{1/} This is P.L. 480 funding for a project in Zimbabwe (AID/AFR-27) which also supported some activities in category A.V.

^{2/} In addition to the above total, FY 1986 funding for multifaceted activities with components in two or more of the above framework categories = \$ 24,070,500 of which approximately 50% was for framework activities.

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TABLE 9

AID/Asia/Near East Activities
 Related to the Conservation of Biological Diversity in Developing Countries: FY 1986^{1/}

<u>Focus of Activity</u>	<u>Type of Activity</u>				
	<u>I</u> Policy Dialogue/ Strategic Planning	<u>II</u> Education/ Public Awareness	<u>III</u> Institution Building/ Training	<u>IV</u> Research/ Inventories	<u>V</u> Resource-or Site-Specific Management
A. Protection	8,10	--	6	10,11	6,8
B. Nat. Res./Envn. Management	5,8,15,16, 17	7,9,10,11	1,2,8,9,19	3,9,18	2,3,4,14
C. Enhanced Production	4	4	4	4	4,5
D. Germplasm Conservation	--	--	12,13	13	

^{1/} The numbers in each category represent the index numbers of the detailed Biodiversity Activity Reports contained in Appendix B.

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TABLE 10

AID/Asia/Near East Funding
Related to the Conservation of Biological Diversity in Developing Countries: FY 1986

<u>Focus of Activity</u>	<u>Type of Activity</u>					TOTALS
	<u>I</u> Policy Dialogue/ Strategic Planning	<u>II</u> Education/ Public Awareness	<u>III</u> Institution Building/ Training	<u>IV</u> Research/ Inventories	<u>V</u> Resource-or Site-Specific Management	
A. Protection	\$ 305,000	--	\$ 702,000 ^{1/}	--	--	\$1,007,000
B. Nat. Res./Envn. Management	\$1,699,000	\$ 110,000	\$1,810,000	--	\$ 761,000	\$4,380,000
C. Enhanced Production	--	--	--	--	--	
D. Germplasm Conservation	--	--	\$ 527,000	--	--	\$ 527,000
	\$2,004,000	\$ 110,000	\$3,039,000	--	\$ 761,000	\$5,914,000 ^{2/}

^{1/} This represents funding for AID/ANE-6, a project which included some activities under A.V.

^{2/} In addition to the above total, FY 1986 funding for components of multifaceted activities that fit within the framework = \$1,318,000. Some of these multifaceted activities had significant protection components (e.g. AID/ANE-R 11)

TABLE 11

AID/Latin America/Caribbean Activities
 Related to the Conservation of Biological Diversity in Developing Countries: FY 1986^{1/}

<u>Focus of Activity</u>	<u>Type of Activity</u>				
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>
	Policy Dialogue/ Strategic Planning	Education/ Public Awareness	Institution Building/ Training	Research/ Inventories	Resource-or Site-Specific Management
A. Protection	18	8,19	18,23	9,24	6,9,18
B. Nat. Res./Envn. Management	4,7,12,16, 18,20,25	7,8,14,15, 19,25	1,2,3,9,10, 11,13,14,15, 17,18,21,22, 26	22	1,5,10,11,13, 18
C. Enhanced Production	--	--	9,13,17,26	13,26	11,13
D. Germplasm Conservation	--	--	17	--	--

^{1/} The numbers in each category represent the index numbers of the detailed Biodiversity Activity Reports contained in Appendix B.

TABLE 12

AID/Latin America/Caribbean Funding
 Related to the Conservation of Biological Diversity in Developing Countries: FY 1986

<u>Focus of Activity</u>	<u>Type of Activity</u>					TOTALS
	<u>I</u> Policy Dialogue/ Strategic Planning	<u>II</u> Education/ Public Awareness	<u>III</u> Institution Building/ Training	<u>IV</u> Research/ Inventories	<u>V</u> Resource-or Site-Specific Management	
A. Protection	--	--	\$ 123,000	\$ 300,000	\$ 40,000	\$ 463,000
B. Nat. Res./Envn. Management	\$ 184,500	--	\$ 265,000	--	\$ 37,000	\$ 486,500
C. Enhanced Production	--	--	--	--	--	--
D. Germplasm Conservation	--	--	--	--	--	--
	\$ 184,500	--	\$ 388,000	\$ 300,000	\$ 77,000	\$949,500 ^{1/}

^{1/} In addition to the above total, FY 1986 funding for multifaceted activities with components in two or more of the above framework categories = \$ 8,459,187, of which an estimated 60% was for framework activities

TABLE 13

AID/Central Bureaus Activities
 Related to the Conservation of Biological Diversity in Developing Countries: FY 1986^{1/}

<u>Focus of Activity</u>	<u>Type of Activity</u>				
	<u>I</u> Policy Dialogue/ Strategic Planning	<u>II</u> Education/ Public Awareness	<u>III</u> Institution Building/ Training	<u>IV</u> Research/ Inventories	<u>V</u> Resource-or Site-Specific Management
A. Protection	3,4,6	6	1,4,5,6,8 10	10	1,8
B. Nat. Res./Envn. Management	2,3,4,6	4,6	2,3,4,6,12	4,6,7,13	2,6
C. Enhanced Production	3,4,6	4	2,10,11,12	6,7,10,11, 13,14	2,6
D. Germplasm Conservation	--	--	11 .	7,11,14	--

^{1/} The numbers in each category represent the index numbers of the detailed Biodiversity Activity Reports contained in Appendix B.

TABLE 14

AID/Central Bureaus Funding
Related to the Conservation of Biological Diversity in Developing Countries: FY 1986

<u>Focus of Activity</u>	<u>Type of Activity</u>					TOTALS
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>	
	Policy Dialogue/ Strategic Planning	Education/ Public Awareness	Institution Building/ Training	Research/ Inventories	Resource-or Site-Specific Management	
A. Protection	<u>1/</u>	--	\$ 393,000 ^{1/}	--	\$ 335,000 ^{2/}	\$ 728,000
B. Nat. Res./Envn. Management	<u>1/</u>	--	<u>1/</u>	\$1,483,847 ^{3/}	--	\$1,483,847
C. Enhanced Production	--	--	--	\$ 936,927 ^{3/}	--	\$ 936,927
D. Germplasm Conservation	--	--	--	\$1,007,352 ^{3/}	--	\$1,007,352
	--	--	\$ 393,000	\$3,428,126	\$ 335,000	\$4,156,126

^{1/} Several S&T/FENR projects (AID/Central Bureaus 2,3,4, and 6) utilized a substantial proportion of their aggregate FY 1986 funding of \$4,075,000 for activities in these categories.

^{2/} This figure is for AID/Central Bureaus-8, a multifaceted activity that is primarily category A.V.

^{3/} These figures for the Science Advisor's small grants research programs are accurately distributed by framework category.

^{4/} In addition to the above total, FY 1986 funding for multifaceted activities, with components in two or more of the above framework categories, other than the Science Advisor's programs, = \$ 9,673,000 of which approximately 54% were for framework activities.

TABLE 15

Department of State Activities and Funding
 Related to the Conservation of Biological Diversity in Developing Countries: FY 1986^{1/}

<u>Focus of Activity</u>	<u>Type of Activity</u>				
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>
	Policy Dialogue/ Strategic Planning	Education/ Public Awareness	Institution Building/ Training	Research/ Inventories	Resource-or Site-Specific Management
A. Protection	1,2,3 N/A	--	--	--	--
B. Nat. Res./Envn. Management	--	--	--	--	--
C. Enhanced Production	--	--	--	--	--
D. Germplasm Conservation	--	--	--	--	--

^{1/} Top figures in each framework category are the index numbers for the BioDiversity Activity Reports given in Appendix B. Funding estimates are not available.

TABLE 16

USDA Activities and Funding
 Related to the Conservation of Biological Diversity in Developing Countries: FY 1986^{1/}

<u>Focus of Activity</u>	<u>Type of Activity</u>					TOTALS
	<u>I</u> Policy Dialogue/ Strategic Planning	<u>II</u> Education/ Public Awareness	<u>III</u> Institution Building/ Training	<u>IV</u> Research/ Inventories	<u>V</u> Resource-or Site-Specific Management	
A. Protection	--	--	--	--	--	--
B. Nat. Res./Envn. Management	--	--	--	--	--	--
C. Enhanced Production	--	--	--	--	--	--
D. Germplasm Conservation	--	--	2,3	1,4,5 \$100,000	--	\$100,000
	--	--	--	\$100,000	--	100,000

^{1/} Top figures in each framework category are the index numbers for the BioDiversity Activity Reports given in Appendix B. The bottom figures in each framework category represent the aggregate identifiable funding for those activities.

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TABLE 17

Department of Commerce Activities and Funding
 Related to the Conservation of Biological Diversity in Developing Countries: FY 1986^{1/}

<u>Focus of Activity</u>	<u>Type of Activity</u>					TOTALS
	<u>I</u> Policy Dialogue/ Strategic Planning	<u>II</u> Education/ Public Awareness	<u>III</u> Institution Building/ Training	<u>IV</u> Research/ Inventories	<u>V</u> Resource-or Site-Specific Management	
A. Protection	3	--	4	3	--	--
B. Nat. Res./Envn. Management	1 \$20,000 ^{2/}	--	--	2 \$22,500	--	\$42,500
C. Enhanced Production	--	--	--	--	--	--
D. Germplasm Conservation	--	--	--	--	--	--
	\$20,000	--	--	\$22,500	--	\$42,500 ^{3/}

^{1/} Top figures in each framework category are the index numbers for the BioDiversity Activity Reports given in Appendix B. The bottom figures in each framework category represent the aggregate identifiable funding for those activities.

^{2/} A.I.D. funded.

^{3/} In addition to the above total, FY 1986 funding for multifaceted activities with components in two or more of the above framework categories = \$ 71,500.

TABLE 18

Interior/NPS Activities
 Related to the Conservation of Biological Diversity in Developing Countries: FY 1986^{1/2/}

<u>Focus of Activity</u>	<u>Type of Activity</u>				
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>
	Policy Dialogue/ Strategic Planning	Education/ Public Awareness	Institution Building/ Training	Research/ Inventories	Resource-or Site-Specific Management
A. Protection	4,17,19,28	12	2,5,6,7,11, 13,14,15,16, 18,21,22,24, 27,33,34,36, 37	20,35	23,25,26
B. Nat. Res./Envn. Management	1	--	3,8,9,10,29, 30,31	32	--
C. Enhanced Production	--	--	--	--	--
D. Germplasm Conservation	--	--	--	--	--

^{1/} The numbers in each category represent the index numbers of the detailed BioDiversity Activity Reports contained in Appendix B.

^{2/} As the report neared completion, NPS reported an additional 14 activities which fit within the framework. Unfortunately, time constraints did not permit the integration of this material in the report.

TABLE 19

Interior/NPS Funding
Related to the Conservation of Biological Diversity in Developing Countries: FY 1986

<u>Focus of Activity</u>	<u>Type of Activity</u>					TOTALS
	<u>I</u> Policy Dialogue/ Strategic Planning	<u>II</u> Education/ Public Awareness	<u>III</u> Institution Building/ Training	<u>IV</u> Research/ Inventories	<u>V</u> Resource-or Site-Specific Management	
A. Protection	\$ 44,150	\$ 100,000 ^{1/}	\$ 569,280 ^{2/}	\$ 9,000	\$ 27,937 ^{3/}	\$ 750,367
B. Nat. Res./Envn. Management	\$ 10,180 ^{4/}	--	\$ 275,432 ^{5/}	\$ 31,000 ^{6/}	--	\$ 316,612
C. Enhanced Production	--	--	--	--	--	--
D. Germplasm Conservation	--	--	--	--	--	--
	\$ 54,330	\$ 100,000	\$ 844,712	\$ 40,000	\$ 27,937	\$1,066,979

^{1/} P.L. 480^{2/} Includes \$360,000 in P.L. 480^{3/} Includes \$11,160 from A.I.D.^{4/} A.I.D. funded^{5/} Includes \$202,432 from A.I.D.^{6/} Includes \$30,000 from A.I.D.

TABLE 20

Interior/FWS Activities
Related to the Conservation of Biological Diversity in Developing Countries: FY 1986^{1/}

<u>Focus of Activity</u>	<u>Type of Activity</u>				
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>
	Policy Dialogue/ Strategic Planning	Education/ Public Awareness	Institution Building/ Training	Research/ Inventories	Resource-or Site-Specific Management
A. Protection	1,5,17	1,2,10,15, 18	7,8,11,12, 14,16,21	9,13,15,19, 20,22,24,25, 26,27,28	3
B. Nat. Res./Envn. Management	--	4,6	23	--	--
C. Enhanced Production	--	--	--	--	--
D. Germplasm Conservation	--	--	--	--	--

^{1/} The numbers in each category represent the index numbers of the detailed Biodiversity Activity Reports contained in Appendix B.

TABLE 21

Interior/FWS Funding
Related to the Conservation of Biological Diversity in Developing Countries: FY 1986

<u>Focus of Activity</u>	<u>Type of Activity</u>					TOTALS
	<u>I</u> Policy Dialogue/ Strategic Planning	<u>II</u> Education/ Public Awareness	<u>III</u> Institution Building/ Training	<u>IV</u> Research/ Inventories	<u>V</u> Resource-or Site-Specific Management	
A. Protection	\$ 4,000	\$ 53,300 ^{1/}	\$210,000 ^{2/}	\$304,628 ^{3/}	\$ 2,700	\$574,628
B. Nat. Res./Envn. Management	--	\$401,800 ^{4/}	\$ 20,000	--	--	\$421,800
C. Enhanced Production	--	--	--	--	--	--
D. Germplasm Conservation	--	--	--	--	--	--
	\$ 4,000	\$455,100	\$230,000	\$304,628	\$ 2,700	\$996,428

1/ Includes \$20,000 in P.L. 480

2/ Includes \$100,000 in P.L. 480

3/ Includes \$269,628 in P.L. 480

4/ Includes \$366,800 of P.L. 480

5/ In addition to the above total, FY 1986 funding for multifaceted activities with components in two or more of the above framework categories = \$ 34,700 including \$13,300 from AID/ANE-11. All were protection oriented.

2/

TABLE 22

Department of Treasury Activities and Funding
 Related to the Conservation of Biological Diversity in Developing Countries: FY 1986^{1/}

<u>Focus of Activity</u>	<u>Type of Activity</u>				
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>
	Policy Dialogue/ Strategic Planning	Education/ Public Awareness	Institution Building/ Training	Research/ Inventories	Resource-or Site-Specific Management
A. Protection	--	--	--	--	--
B. Nat. Res./Envn. Management	1,2 ^{2/}	--	--	--	--
C. Enhanced Production	--	--	--	--	--
D. Germplasm Conservation	--	--	--	--	--

^{1/} The numbers in each category represent the index numbers of the detailed Biodiversity Activity Reports contained in Appendix B.

^{2/} These activities were conducted at negligible cost.

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TABLE 23

EPA Activities and Funding
 Related to the Conservation of Biological Diversity in Developing Countries: FY 1986^{1/}

<u>Focus of Activity</u>	<u>Type of Activity</u>					TOTALS
	<u>I</u> Policy Dialogue/ Strategic Planning	<u>II</u> Education/ Public Awareness	<u>III</u> Institution Building/ Training	<u>IV</u> Research/ Inventories	<u>V</u> Resource-or Site-Specific Management	
A. Protection	--	--	--	--	--	--
B. Nat. Res./Envn. Management	--	--	\$3,540	1 --	--	\$3,640
C. Enhanced Production	--	--	--	--	--	--
D. Germplasm Conservation	--	--	--	--	--	--

\$3,640

^{1/} Top figures in each framework category are the index numbers for the Biodiversity Activity Reports given in Appendix B. The bottom figures in each framework category represent the aggregate identifiable funding for those activities.

TABLE 24

NSF Activities and Funding
 Related to the Conservation of Biological Diversity in Developing Countries: FY 1986^{1/}

<u>Focus of Activity</u>	<u>Type of Activity</u>					TOTALS
	<u>I</u> Policy Dialogue/ Strategic Planning	<u>II</u> Education/ Public Awareness	<u>III</u> Institution Building/ Training	<u>IV</u> Research/ Inventories	<u>V</u> Resource-or Site-Specific Management	
A. Protection	--	--	--	2,3,5,6,7, 8,12,13 \$494,000	--	\$ 494,000
b. Nat. Res./Envn. Management	--	--	--	1,4 \$241,000	--	\$ 241,000
C. Enhanced Production	--	--	--	9,10,11 \$441,000	--	\$ 441,000
D. Germplasm Conservation	--	--	--	--	--	--
						\$1,176,000

^{1/} Top figures in each framework category are the index numbers for the BioDiversity Activity Reports given in Appendix B. The bottom figures in each framework category represent the aggregate identifiable funding for those activities.

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TABLE 25

OPIC Activities and Funding
 Related to the Conservation of Biological Diversity in Developing Countries: FY 1986^{1/}

<u>Focus of Activity</u>	<u>Type of Activity</u>				
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>
	Policy Dialogue/ Strategic Planning	Education/ Public Awareness	Institution Building/ Training	Research/ Inventories	Resource-or Site-Specific Management
A. Protection	--	--	--	--	2
B. Nat. Res./Envn. Management	--	--	--	--	1
C. Enhanced Production	--	--	--	--	2
D. Germplasm Conservation	--	--	--	--	--

^{1/} Top figures in each framework category are the index numbers for the BioDiversity Activity Reports given in Appendix B. The bottom figures in each framework category represent the aggregate identifiable funding for those activities.

TABLE 26

Peace Corps Volunteer-Years Related to the
Conservation of Biological Diversity in Developing Countries: FY 1986

<u>Focus of Activity</u>	<u>Type of Activity</u>					TOTALS
	<u>I</u> Policy Dialogue/ Strategic Planning	<u>II</u> Education/ Public Awareness	<u>III</u> Institution Building/ Training	<u>IV</u> Research/ Inventories	<u>V</u> Resource-or Site-Specific Management	
A. <u>Protection</u>	3.9	13.8	10.4	22.5	22.8	79.6
B. <u>Nat. Res./Envn. Management</u>	10.2	48.4	34.1	16.3	51.0	160.1
C. <u>Enhanced Production</u>	24.6	154.9	131.9	60.7	534.8	936.7
D. <u>Germplasm Conservation</u>	0.0	5.0	0.5	3.0	1.3	9.8
TOTALS	38.7	222.0	177.0	102.5	639.7	1179.8

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TABLE 27

Peace Corps Funding for Volunteer-Years Related to the
Conservation of Biological Diversity in Developing Countries: FY 1986
(Figures in \$000)

<u>Focus of Activity</u>	<u>Type of Activity</u>					TOTALS
	<u>I</u> Policy Dialogue/ Strategic Planning	<u>II</u> Education/ Public Awareness	<u>III</u> Institution Building/ Training	<u>IV</u> Research/ Inventories	<u>V</u> Resource-or Site-Specific Management	
A. <u>Protection</u>	\$ 95	\$ 345	\$ 371	\$ 562	\$ 568	\$ 1,833
B. <u>Nat. Res./Envn. Management</u>	\$254	\$1,208	\$ 854	\$ 409	\$ 1,276	\$ 4,001
C. <u>Enhanced Production</u>	\$616	\$3,872	\$3,296	\$1,516	\$14,116	\$23,416
D. <u>Germplasm Conservation</u>	0	\$ 125	\$ 13	\$ 75	\$ 31	\$ 244
TOTALS	\$966	\$5,549	\$4,425	\$2,562	\$15,991	\$29,494

TABLE 28

Smithsonian Activities and Funding
 Related to the Conservation of Biological Diversity in Developing Countries: FY 1986^{1/}

<u>Focus of Activity</u>	<u>Type of Activity</u>					TOTAL
	<u>I</u> Policy Dialogue/ Strategic Planning	<u>II</u> Education/ Public Awareness	<u>III</u> Institution Building/ Training	<u>IV</u> Research/ Inventories	<u>V</u> Resource-or Site-Specific Management	
A. Protection	2	1,2	2	2	2	
B. Nat. Res./Envn. Management	--	1	--	--	--	
C. Enhanced Production	--	1	--	--	--	
D. Germplasm Conservation	2	1,2	2	2	2	

\$73,200

^{1/} Funding for activity 1 = \$34,000
 Funding for activity 2 = \$39,200.

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TABLE 29

USIA Activities
 Related to the Conservation of Biological Diversity in Developing Countries: FY 1986^{1/}

<u>Focus of Activity</u>	<u>Type of Activity</u>				
	<u>I</u> Policy Dialogue/ Strategic Planning	<u>II</u> Education/ Public Awareness	<u>III</u> Institution Building/ Training	<u>IV</u> Research/ Inventories	<u>V</u> Resource-or Site-Specific Management
A. Protection	--	1,5,7	--	--	--
B. Nat. Res./Envn. Management	--	1,2,7	3,4,6	--	--
C. Enhanced Production	--	1,2,7	--	--	--
D. Germplasm Conservation	--	--	7	--	--

^{1/} The numbers in each category represent the index numbers of the detailed Biodiversity Activity Reports contained in Appendix B.

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TABLE 30

USIA Funding
 Related to the Conservation of Biological Diversity in Developing Countries: FY 1986

<u>Focus of Activity</u>	<u>Type of Activity</u>					TOTALS
	<u>I</u> Policy Dialogue/ Strategic Planning	<u>II</u> Education/ Public Awareness	<u>III</u> Institution Building/ Training	<u>IV</u> Research/ Inventories	<u>V</u> Resource-or Site-Specific Management	
A. Protection	--	\$ 137,470 ^{1/}	--	--	--	\$ 137,470
B. Nat. Res./Envn. Management	--	\$ 483,888	\$ 67,644	--	--	\$ 551,539
C. Enhanced Production	--	\$ 765,722	--	--	--	\$ 765,722
D. Germplasm Conservation	--	\$ 50,286	--	--	--	\$ 50,286
	--	\$1,437,366	\$ 67,644	--	--	\$1,505,010 ^{1/}

^{1/} In addition to the above total, FY 1986 funding for multifaceted activities,
 with components in two or more of the above framework categories = \$ 168,000.

APPENDIX B

BioDiversity Activity Reports
by Agency

Interpreting the BioDiversity Activity Reports

This appendix contains detailed information on each of the activities of USG agencies related directly or indirectly to the conservation of biological diversity in developing countries that are discussed in the text of this report and summarized in the tables in Appendix A. This detailed information is provided in a series of standardized BioDiversity Activity Reports, one for each activity. These reports are compiled, agency-by-agency, in the same sequence as the various agencies are discussed in the text. Each of these reports provides the following information:

- . the lead agency for the activity
- . collaborating agencies, institutions, or organizations
- . title of activity (and project number, where applicable)
- . the framework codes describing where the activity or its components fit within the reporting framework (see Sec. 2.1.1 and Appendix A.)
- . the duration of the project expressed as start and stop years
- . the country(ies) or region(s) in which the activity took place
- . an estimate of FY 1986 USG funding for the activity (either obligations or expenditures)
- . a brief narrative description of the activity

Each report includes an index code and number in the upper right hand corner which serves to uniquely identify that activity. For example, the first report is from A.I.D.'s Bureau for Africa and it bears the index code and number AID/AFR-1. These codes and numbers allow any particular activity to be traced back to the activity summary tables in Appendix A and to be succinctly referenced in the text.

Several constraints and caveats pertain to the estimates of funding included in these reports. First, because the extensive information contained in these reports derives from 14 different federal agencies, each with its own accounting and administrative procedures, standardization of funding information is extremely difficult. Consequently, the figures given for any particular activity may represent either obligations or expenditures during FY 1986.

Second, although many of the activities reported here are multifaceted in substance, from an accounting standpoint they represent only one obligation or expenditure level. In some cases, the agency reporting the activity attempted to estimate the proportion of funding which was applicable to the components of the project of interest here. In most cases, however, this represents merely an informed judgement. Often, even this level of detail is unavailable.

To deal with these problems, the following conventions were followed. All figures listed under funding in the BioDiversity Activity Reports are the lead agency's best estimate of the obligations or expenditures for that activity during FY 1986, unless otherwise noted. In the case of multifaceted activities, the proportion of the overall activity's funding which pertains to the framework codes listed on the activity report is given where available. When such proportional breakdowns are unavailable, the overall project funding for FY 1986 is given and so indicated. However, these overall funding figures were not allocated among framework categories in the funding summary tables in Appendix A. Instead, these aggregate figures are included in a footnote in the appropriate summary table. The following are abbreviations used with regard to funding:

est. - estimated;

P.L. 480 - local currencies from P.L. 480 programs expressed as dollar equivalents;

NA - not available.

SB

Agency: AID/AFR

Collaborator(s):

Title: Southwest Regional Reforestation Project (686-0934)

Framework Code(s): B.1.II, B.1.III, C.2.III

Duration: 1985 - continuing

Country(ies): Burkina Faso

Funding: NA

Description: To build up the present Ministry of Transport, Environment and Tourism (MET) infrastructure in the Provinces of Bougouriba and Ponté; and to initiate an active and effective program to counteract the environmental degradation that has been occurring in the region. Includes training of MET agents in, among other tasks, soil and water conservation, sensitization of local people to environmental problems and agroforestry. AFRICARE is running the project.

Agency: AID/AFR

Collaborator(s): Peace Corps

Title: Bururi Forest (695-0105 - subcomponent)

Framework Code(s): A.3.IV, C.2.V

Duration: 1985 - 1987

Country(ies): Burundi

Funding: \$5,000 (est.) partial support for Peace Corps Volunteer (PCV) wildlife Biologist for A.3.IV

Description: A PCV wildlife biologist assigned to the project is undertaking inventories and studies of the various rare and endangered species that exist in the forest and surrounding areas (chimpanzees, monkeys, small carnivores, small antelopes, birds) in support of the CRB's efforts to preserve and protect the remaining local species. This is part of an overall agroforestry project.

Agency: AID/AFR

Collaborator(s):

Title: Romonge Agroforestry Project

Framework Code(s): A.3.IV, C.2.V

Duration: 1986 - continuing

Country(ies): Burundi

Funding: \$5,000 est. partial support costs for PCV Wildlife Biologist for A.3.IV

Description: Develop an agroforestry program for the region surrounding the 250 ha Romonge Forest Reserve. Protect the reserve while developing alternative sources of material which were formerly taken from the reserve. PCV wildlife biologist will be doing inventories and studies of the various rare and endangered species in the region (chimpanzees, monkeys, small carnivores, water civits).

Agency: AID/AFR

Collaborator(s): AFRICARE

Title: Abeche Rural Development Activities (698-0502-4A)

Framework Code(s): P.2.V, C.2.V

Duration: 1984 (believed to be continuing)

Country(ies): Chad (Quaddai Prefecture)

Funding: \$425,000 est. for relevant activities

Description: The project promotes environmental protection through increased use of trees. Trees are being planted as windbreaks, field perimeters, for village woodlots and shade trees, and for gum plantations.

Agency: AID/AFR

Collaborator(s): CARE

Title: Chad Relief and Rehabilitation Project (677-0041)

Framework Code(s): B.2.V, C.2.V

Duration: 1984 (believed to be continuing)

Country(ies): Chad (Chari, Baguirmi and Kanem Prefectures)

Funding: \$125,000 est. for relevant activities

Description: This project promotes environmental protection through increased use of valuable local tree species and selected introduced species. The project promotes environmental protection primarily through (1) The use of Acacia albida trees planted in village fields in the Chari and Baguirmi Prefectures and (2) The use of trees to protect oases from sand encroachment in the Kanem Prefecture. Acacia albida is an indigenous multi-purpose tree species. Planted at about 20 trees per acre, it has immense value in maintaining long-term fertility of sorghum and millet fields in the Sahelian zone of Chad.

Agency: AID/AFR

Collaborator(s):

Title: Soil and Water Management (635-0202)

Framework Code(s): B.1.II, B.1.III, B.2.II

Duration: 1979 - 1987

Country(ies): Gambia

Funding: \$60,000 est. for relevant activities

Description: Environmental and natural resources awareness and education. Environmental and natural resource planning. Watershed planning, management and protection, training, land reclamation, institutional development.

Agency: AID/AFR

Collaborator(s):

Title: Gambia Forestry (635-0205)

Framework Code(s): B.1.II, B.1.III, C.2.IV, C.2.V

Duration: 1979 - continuing

Country(ies): Gambia

Funding: \$50,000 est. for relevant activities

Description: Inventory, management, natural resource planning, woodlots, plantations, natural resources, awareness and education.

Agency: AID/AFR

Collaborator(s):

Title: Food Crop Protection (657-0007)

Framework Code(s): B.2.III, D.III

Duration: 1978 - 1986

Country(ies): Guinea - Bissau

Funding: \$23,500 est. for relevant activities

Description: Integrated pest management strategies with increasing emphasis on natural control on pests of such cereals as millet, cassava, rice, sorghum, and vegetables and less emphasis on the use of insecticides. Technical assistance, training (short and long-term) as well as commodity support to assist the government of Guinea-Bissau's National Crop Protection Service to carry-out integrated pest management strategies. Some major activities that were initiated and on-going are methods to control key pests by the use of resistant varieties, cultural practices, biological control, and by the use of third generation pesticides.

Agency: AID/AFR

Collaborator(s):

Title: Food Crop Protection III (657-0012)

Framework Code(s): B.2.III

Duration: 1986 - 1990

Country(ies): Guinea - Bissau

Funding: \$22,000 est. for relevant activities

Description: As with the forerunner of this project (Project 657-0007) primary emphasis is given to first line controls such as varietal resistance, cultural, mechanical and/or biological rather than to pesticide application. No specific species or genetic resource is targeted but is against any type of pest which threatens production of crops in Guinea-Bissau. Project will continue with efforts initiated under Project 657-0007 with emphasis on strengthening the crop protection program which is based on strategies associated with integrated pest management.

Agency: AID/AFR

Collaborator(s): Government of Kenya (GOK)

Title: Arid and Semi-Arid Lands Project (615-0172)

Framework Code(s): B.1.V

Duration: 1979 - 1987

Country(ies): Kenya

Funding: \$80,000 est. for relevant activities

Description: Small watershed protection and management. Production and distribution of seedlings for reforestation and soil and water conservation and management. Education and information on natural resources management and protection. Purpose is to establish a basis for launching an accelerated national development program in arid and semi-arid lands through: (a) enhanced administrative, planning and technical competence, and (b) testing and proving an array of activities in soil and water conservation and tillage methods. Preserve and improve the agricultural production base in the pilot area in Kitui District.

Agency: AID/AFR

Collaborator(s): Government of Kenya (GOK)

Title: Renewable Energy Development Project (615-0205)

Framework Code(s): B.2.II, E.1.III, C.2.II, C.2.V, D.IV

Duration: 1980 - continuing

Country(ies): Kenya

Funding: \$200,000 est. for relevant activities

Description: Collection, preservation and field testing of indigenous and exotic trees and shrubs of economic importance. General education, information and research on natural resources protection and management. Production and distribution of seedlings for agro-forestry and forestry. Project is designed to stimulate development and dissemination of renewable energy technologies, promote/expand afforestation and fuelwood conservation efforts, and support institutional development of ministry of energy and regional development.

Agency: AID/AFR

Collaborator(s): International Center of Insect Physiology and Ecology (ICIPE)

Title: Basis of Plant Resistance to Insect Attack (698-0435.02)

Framework Code(s): B.2.IV, D.IV

Duration: 1984 - 1989

Country(ies): Kenya (regional project)

Funding: \$200,000 est for relevant activities

Description: Specifically focuses on insects of economic importance, especially breeding programs to identify insects for biocontrol and plant species for bioresistance. Project activities compare susceptibility or resistance levels of different cultivars of certain crop plants to their key insect pests. Goal is to elucidate the principles determining this susceptibility. The project is also undertaking studies to manipulate susceptibility/resistance for better management of pests. For the last few years several crop plants and their respective insect pests have been under investigation.

Agency: AID/AFR

Collaborator(s):

Title: East Africa Regional Remote Sensing II (698-0456)

Framework Code(s): B.1.III, B.2.III

Duration: 1986 - 1991

Country(ies): Regional - East Africa,

Funding: \$500,000 overall

Description: The purpose is to strengthen the viability and technical capability of the Regional Remote Sensing Facility, established under an earlier project. These techniques are used to estimate crop acreage and yield, surveying soils, managing rangeland, forest and water resources, land-use planning, population maps, disaster warnings and other resource survey tasks.

Agency: AID/AFR

Collaborator(s): Government of Lesotho (GOL)

Title: Basic & Nonformal Education Systems (632-0222)

Framework Code(s): B.1.II, C.1.II, C.2.II, C.3.II

Duration: 1984 - 1990

Country(ies): Lesotho

Funding: \$333,000 est. for relevant activities

Description: Project will improve efficiency of the school system, providing training and technical assistance to improving Ministry of Education administration/management and the teacher training college and improve relevance by curriculum reform and in-service training for teachers. Focusing on the inclusion of content related to practical skills, including gardening, and animal husbandry; soil, water, and tree conservation; and related applied sciences, including emphasizing ecological concerns in the primary, junior, secondary and teacher training programs.

Agency: AID/AFR

Collaborator(s):

Title: Land Conservation and Range Development (632-0215)

Framework Code(s): B.1.III, C.3.III

Duration: 1981 - 1987

Country(ies): Lesotho

Funding: \$2,000,000 est. for relevant activities

Description: Project provides direct support to Conservation and Range Divisions/Ministry of Agriculture for soil/water conservation and range and livestock improvement activities. Major effort in rangeland aerial mapping of entire country of Lesotho has been completed. Technicians have led efforts to develop implementation strategies under grazing management plan which is part of land use act of 1979. Overall target re:, livestock, is to prepare rational plans for controlling number of livestock on the range based on assessed carrying capacity.

Agency: AID/AFR

Collaborator(s):

Title: Agricultural Production and Institutional Support (632-0221)

Framework Code(s): B.1.I, B.1.II, C.1.I, C.1.II, C.1.IV, C.2.IV

Duration: 1985 - 1991

Country(ies): Lesotho

Funding: \$1,850,000 overall

Description: This multicomponent, sector-type project concentrates on agricultural production, extension education, agricultural research and agricultural planning. Activities to be supported include conservation education, rangeland studies, land use assessments/planning and forestry and agroforestry research and management.

Agency: AID/AFR

Collaborator(s):

Title: Agricultural Planning (632-0218)

Framework Code(s): B.1.I

Duration: 1981 - 1987

Country(ies): Lesotho

Funding: \$1,000,000 est. for relevant activities

Description: Project includes work directly related to land use assessments/planning and indirectly for watershed planning, management and protection.

Agency: AID/AFR

Collaborator(s):

Title: Integrated Pest Management (625-0928)

Framework Code(s): R.2.III

Duration: 1978 - 1987

Country(ies): Sahel Region and Niger

Funding: \$4,000,000 overall

Description: Develop the capacity of 7 Sahelian (IPM) countries to undertake research on integrated pest management and produce IPM packages for extension to farmers.

Agency: AID/AFR

Collaborator(s):

Title: Forestry and Land Use Planning (683-0230)

Framework Code(s): B.1.III, C.2.III

Duration: 1980 - 1986

Country(ies): Niger

Funding: \$800,000 est. for relevant activities

Description: Develops within the national government a planning unit for land use and forestry. Pilot activities in agroforestry and natural forest management and training are major components.

Agency: AID/AFR

Collaborator(s):

Title: Niger River Development Planning (625-0914)

Framework Code(s): B.1.III, B.1.IV

Duration: 1982 - 1988

Country(ies): Niger

Funding: \$2,500,000 overall

Description: Water resources management with the following components: river systems modeling including sediment transport; environmental baseline study and impact assessment; socio-economic study; and development of integrated basin master plan.

Agency: AID/AFR

Collaborator(s): Government of Rwanda (GOR)

Title: Ruhengeri Resource Analysis and Management (698-0427)

Framework Code(s): B.1.I, B.1.II, B.1.IV

Duration: 1985 - 1986

Country(ies): Rwanda

Funding: \$646,000 for relevant activities (centrally funded)

Description: Technical assistance and training to do an environmental profile of North Central Rwanda with a goal to increase GOR awareness of environmental impact of development projects and the value of environmental protection and planning. Project addresses aspects of natural resources inventory, education, policy development, and environmental planning and management.

Agency: AID/AFR

Collaborator(s): Government of Somalia (GOS)

Title: JUBA Development Analytical Studies (649-0134)

Framework Code(s): A.3.IV, B.1.IV

Duration: 1984 - 1988

Country(ies): Somalia

Funding: \$400,000 est. for relevant activities

Description: Environmental/sociological assessment of impacts of land and water resources development on soils, climate, aquatic biology, fish, wildlife, forests, and savana in major watershed. Includes natural resources and land-use surveys and classification; establishment of data base; recommendations for mitigation of harmful environmental impacts; and enhancement of benefits. Also includes training and institution building.

Agency: AID/AFR

Collaborator(s): Government of Somalia (GOS)

Title: CDA Forestry Phase I (649-0122)

Framework Code(s): B.1.III, B.1.IV, C.2.V

Duration: 1983 - 1987

Country(ies): Somalia

Funding: \$1,000,000 est. for relevant activities

Description: Institution building, technical assistance and training to strengthen planning and conservation capabilities of GOS. Reforestation, fuelwood production, agroforestry and conservation sub-projects. Land-use and natural resources surveys and classification.

Agency: AID/AFR

Collaborator(s):

Title: Central Rangelands Development (649-0108)

Framework Code(s): B.1.III, C.3.IV

Duration: 1980 - 1986

Country(ies): Somalia

Funding: \$200,000 est. for relevant activities

Description: Rangelands development and management including vegetation inventory and monitoring, technical assistance, training and research on soil and water conservation to protect and promote terrestrial vegetation of a major grazing area.

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Agency: AID/AFR

Collaborator(s):

Title: Western Sudan Agricultural Research (650-0020)

Framework Code(s): B.1.V, C.1.III, C.1.V, C.3.V

Duration: 1982 - 1987

Country(ies): Sudan

Funding: \$5,000,000 overall

Description: The project increases the capability of the Sudanese Agricultural Research Corporation (ARC) to develop and test improved production systems that conserve and rehabilitate natural resources and improve the standard of living of the subsistence farmers and pastoralists of Western Sudan. It includes development of an ARC research center and seven regional headquarters and on-site research projects in livestock/crop production systems, water and land-use management, range and livestock production.

Agency: AID/AFR

Collaborator(s):

Title: RDA - Infrastructure Support Project (645-0068)

Framework Code(s): A.1.III, C.1.III, C.1.V

Duration: 1978 - 1985

Country(ies): Swaziland

Funding: NA

Description: Technical assistance, training, commodities and equipment (loan funded) to strengthen the Ministry of Agriculture and Cooperatives' land use planning and development capability; and develop, install and maintain conservation works in the rural development areas. In addition, a small component of the project assisted in setting up the national environmental education program at a local game reserve to train Swazis in conservation approaches and methods.

Agency: AID/AFR

Collaborator(s): Government of Zimbabwe (GOZ)

Title: Zambezi Valley Development and Anti-Poaching Activities
(subcomponent of 613-0209 reported under AID/AFR-28)

Framework Code(s): A.1.III, A.1.V, A.2.III, A.2.V

Duration: NA

Country(ies): Zimbabwe

Funding: \$360,624 est. for relevant activities (P.L. 480)

Description: Zambezi Valley Development and Anti-poaching Activities is a local currency activity and is providing funds to construct housing and purchase vehicles/boats to support GOZ's national parks and wildlife unit. This activity is directed at supporting measures to save the black rhino, an endangered species.

Agency: AID/AFR

Collaborator(s):

Title: Zimbabwe Agricultural Sector Assistance Grant
(613-0209)

Framework Code(s): A.1.I, B.1.II, B.1.III

Duration: 1985-1986

Country(ies): Zimbabwe

Funding: \$800,000 est. for relevant activities (about 50% in P.L. 480)

Description: Consists of 4 subprojects:

Natural Resources Extension Education - Develop mobile extension training units to educate rural populations (\$800,000; about 50% in P.L. 480).

Land Use Planning - Purchase equipment and supplies for LUP Program. (\$17,000)

Rainfall Simulation - Purchase equipment to assist in research on rainfall and rates of erosion (\$114,000; about 30% in P.L. 480).

Development of National Conservation Strategy (\$32,000).

Agency: AID/AFR

Collaborator(s):

Title: Remote Sensing - West Africa (698-0457)

Framework Code(s): B.1.IV

Duration: 1977 - 1986

Country(ies): Regional West Africa (Burkina-Faso)

Funding: \$2,600,000 overall

Description: Purpose is to enable African development and resource managers to use LANDSAT and other imagery in planning, implementing and monitoring agriculture, forestry, rangeland, ground water and other resource development projects. Fourteen African States are members. The Remote Sensing Center, now fully equipped but not yet fully staffed has provided training for 212 technicians from 20 countries and has provided user assistance in over 50 projects. The photo laboratory has the capability of producing standard LANDSAT products in black and white and in color.

Agency: AID/AFR

Collaborator(s):

Title: Human Settlements, Natural Resource System Analysis
(931-1135)

Framework Code(s): B.1.III, B.1.IV

Duration: 1978 - 1979

Country(ies): All Africa

Funding: NA

Description: Purpose is to strengthen LDC capacity in regional based natural resource analysis and management; new land settlement; understanding and managing rural-urban linkages and dynamics.

Agency: AID/AFR

Collaborator(s): International Institute of Tropical Agriculture
(IITA)

Title: Bean/Cowpea CRSP (931-1310)

Framework Code(s): D.IV

Duration: 1982 - 1988

Country(ies): Cameroon and Nigeria

Funding: \$70,000 est. for relevant activities

Description: The purpose of this project is to develop resistance to insects attacking cowpea plants in field and cowpea grain in storage. Project is collecting and preserving local cowpea varieties which have evolved from interaction of ecology and farmer selection; which are included in national program for varietal development and shared with IITA. Nigeria and Cameroon are major sources of cowpea genetic diversity in Africa.

Agency: AID/AFR

Collaborator(s): Government of Kenya (GOK)

Title: Drylands Cropping Project (615-0180)

Framework Code(s): C.1.IV, D.IV

Duration: 1979 - 1986

Country(ies): Kenya

Funding: \$40,000 est. for relevant activities

Description: Collection, preservation and research on indigenous and exotic corn varieties, land-races, mutants, etc. To assist, through basic and applied research, the Government of Kenya to develop an appropriate technology package of technical agricultural recommendations for small-holder farmers in arid and semi-arid lands in Kenya. To increase food supplies in marginal rainfall areas.

Agency: AID/AFR

Collaborator(s): Government of Zambia (G07)

Title: Zambia Agricultural Development, Research and Extension Project (611-0201)

Framework Code(s): C.1.IV, D.IV

Duration: 1980 - 1986

Country(ies): Zambia

Funding: \$350,000 est. for relevant activities

Description: The project has one maize breeder and one soybean breeder that spend an estimated 75 percent of their time collecting, identifying, and utilizing crop germplasm. An agronomist on the adaptive research team spends an estimated 50 percent of his time studying traditional agriculture while carrying out field trials.

The project is involved with collection, identification, and utilization of maize and soybean germplasm in breeding and developing varieties that are higher yielding, disease and insect resistant, drought tolerant, and varieties that are adapted to the country's different ecological areas. It also identifies impure hybrid varieties and purifies them. Traditional agriculture/farming systems are studied and defined to help retain those aspects which are ecologically and agronomically sound while promoting new technologies to improve production.

Agency: AID/AFR

Collaborator(s):

Title: Sorghum and Millet Research (680-0224)

Framework Code(s): C.2.IV - D.IV

Duration: NA

Country(ies): Zimbabwe

Funding: NA

Description: This is a regional activity to support sorghum and millet research in the SADCC region. The project is, among other things, collecting seed and germplasm from the region to ensure maintenance of sorghum and millet genetic diversity in Southern Africa.

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Agency: AID/ANE

Collaborator(s):

Title: Rural Area Development - Rapti Zone (367-0129)

Framework Code(s): B.1.III

Duration: 1980 - 1987

Country(ies): Nepal

Funding: \$210,000 est. for relevant activities

Description: The project supports activities that increase productivity of rural households, restore the natural environment, and establish effective local development capabilities. A number of Peace Corps Volunteers serve with the project in remote locations.

Agency: AID/ANE

Collaborator(s):

Title: Resource Conservation and Utilization (367-0132)

Framework Code(s): B.1.III, P.1.V

Duration: 1980 - 1987

Country(ies): Nepal

Funding: \$458,000 est. for relevant activities

Description: The program concentrates on field activities in forestry, erosion control and land-use management. Assistance in building the capability of the Institute of Renewable Natural Resources to train Nepalese in conservation, forestry and related disciplines is a principal element of the project. As a result of policy dialogue, the Government of Nepal is making progress in returning control of forested lands to local communities.

Agency: AID/ANE

Collaborator(s):

Title: Bicol Integrated Area Development Project (492-0289)

Framework Code(s): P.1.IV, P.1.V

Duration: 1979 - 1980

Country(ies): Philippines

Funding: \$65,000 est. for relevant activities

Description: Conflicting resource uses have occurred in the Lake Buhi watershed of the Bicol Integrated Area Development Project. Siltation and fluctuating water levels have threatened spawning grounds of an important fish species. A \$25,000 grant from project funds was used to study Lake Buhi physical and bio-chemical properties. Reforestation and soil conservation practices in the watershed are also supported by the project.

Agency: AID/ANE

Collaborator(s):

Title: Rainfed Resources Development Project (492-0366)

Framework Code: B.1.V, C.2.I, C.2.II, C.2.III, C.2.IV, C.2.V

Duration: 1982 - 1989

Country(ies): Philippines

Funding: \$127,000 est. for relevant activities

Description: Agroforestry activities are supported in an effort to test approaches to improving community-based management of rainfed agricultural areas. Studies of ongoing community-level resource management systems are underway along with biotechnology research, and policy analysis.

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Agency: AID/ANE

Collaborator(s):

Title: Reforestation and Watershed Management Project (383-0055)

Framework Code(s): B.1.I, B.2.I, C.2.V

Duration: 1980 - 1987

Country(ies): Sri Lanka

Funding: \$175,000 est. for relevant activities

Description: Reforestation of over 24,000 acres of degraded land in the upper catchment of the Mahaweli River is supported by this project. Attention is also given to developing the institutional capability to plan and manage natural resources, conserve the environment, and improve irrigation water management.

Agency: AID/ANE

Collaborator(s):

Title: Mahaweli Environment Project (383-0075)

Framework Code: A.1.III, A.1.V, A.2.III

Duration: 1982 - 1987

Country(ies): Sri Lanka

Funding: \$702,000 est. for relevant activities

Description: The project has established four nature reserves within the Accelerated Mahaweli Program (AMP) area and provided associated park infrastructure, technical assistance, and training. Improved wildlife management capabilities were supported to mitigate negative effects of the AMP development project on wildlife and endangered species.

Agency: AID/ANE

Collaborator(s):

Title: PVO Co-Financing Project (383-0060)

Framework Code(s): B.2.II

Duration: 1984 - 1989

Country(ies): Sri Lanka

Funding: \$110,000

Description: Elements of this project include activities in watershed protection, environmental education and awareness, and support of indigenous environmental NGOs and PVCs.

Agency: AID/ANF

Collaborator(s):

Title: Emerging Problems of Development II Project (493-0341)

Framework Code: A.1.I, A.1.V, B.1.I, B.2.III

Duration: 1985 - 1988

Country(ies): Thailand

Funding: \$319,000 est. for relevant activities

Description: Project supports preparation of a Natural Resources Profile, an in-service training course on environmental assessment, a comprehensive management plan for one of Thailand's pre-eminent marine/coastal national parks, and development of general guidelines for managing coastal parks and sanctuaries in Thailand.

Agency: AID/ANE

Collaborator(s):

Title: ASEAN Coastal Resources Management Project (398-0286)

Framework Code(s): B.1.II, B.1.III, B.1.IV

Duration: 1986 - 1987

Country(ies): Thailand, Indonesia, Philippines, Malaysia and Singapore are primary participants

Funding: NA

Description: The project supports the development of a coastal resources management plan in Thailand and Malaysia. Primary work effort focuses on institution building, training, and development of public awareness programs.

Agency: AID/ANE

Collaborator(s):

Title: Program Development and Support Funds (398-0249)

Framework Code(s): A.1.I, A.3.IV, B.2.II

Duration: 1986

Country(ies): Regional

Funding: \$305,000 est. for relevant activities

Description: Project provided funding for feasibility work, project design and development, project and program evaluation, and selected special studies in support of the bilaterally-funded project portfolio. One such project, in Thailand, provides a current English and Thai language overview on the status and management needs of protected areas in Thailand. The findings will be the subject of an international seminar on management of national parks and protected areas in Thailand also supported by PD&S funds. An additional \$70,000 in funds for this project were used to support the U.S. Fish and Wildlife Service Biological Diversity Small Grants Program for specified small projects in Asia and the Near East. These are reported under AID/ANE-11.

Agency: AID/ANE

Collaborator(s):

Title: Regional Environmental Activities (398-0178)

Framework Code(s): A.3.IV, B.2.II

Duration: 1985 - 1989

Country(ies): selected Near Eastern and selected Asian

Funding: \$174,000

Description: The project funded a Biological Diversity Small Grants Program managed by the U.S. Fish and Wildlife Service. In 1986, the U.S. Fish and Wildlife Service issued Small Grants for projects in India, Jordan, Oman, Turkey, the Near East Region. These projects include research on sea turtles, public education campaigns for environmental issues, and training, and production of environmental educational media.

Agency: AID/ANE

Collaborator(s):

Title: Agricultural Research Project (386-0470)

Framework Code(s): P.III

Duration: 1983 - 1987

Country(ies): India

Funding: \$69,000 est. for relevant activities

Description: Addresses research priorities and training needs for crop-specific technical problems, post-harvest technology, and water management. Project-funded research activities are designed to increase the level of U.S. technical and scientific collaboration. Plant genetic resource preservation is a subproject designed to collect, evaluate, and preserve plant species for future improvement of agricultural crops. The subproject action is to develop a nationwide network that has the capability to undertake plant genetic resources preservation.

Agency: AID/ANE

Collaborator(s):

Title: Dryland Agricultural Applied Research Project (608-0136)

Framework Code(s): D.III, D.V

Duration: 1978 - 1988

Country(ies): Morocco

Funding: \$458,000 est. for relevant activities

Description: Elements of the project include collection, cataloging, and storage of seed. Training included development of improving skills in plant hybridization technology, seed preparation and production, and agricultural research.

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Agency: AID/ANE

Collaborator(s):

Title: Madhya Pradesh Social Forestry Project (386-0475)

Framework Code(s): B.1.V

Duration: 1981 - 1983

Country(ies): India

Funding: \$761,000 est. for relevant activities

Description: A major objective of the project is to relieve pressure on natural forests by establishing and managing small forest plantations on locally managed wastelands. The project develops village woodlots for local fuelwood and other forest product needs.

Agency: AID/ANF

Collaborator(s):

Title: Maharashtra Social Forestry Project (386-0478)

Framework Code(s): B.1.I

Duration:

Country(ies): India

Funding: \$545,000 est. for relevant activities

Description: A major objective of the project is to relieve pressure on natural forests by strengthening the state's social forestry extension services and providing a more systematic approach to organization and management of village woodlots.

Agency: AID/ANE

Collaborator(s):

Title: National Social Forestry Project (386-0495)

Framework Code(s): B.1.I

Duration: 1985 - 1988

Country(ies): India

Funding: \$1,029,000 est for relevant activities

Description: A major objective of the project is to relieve pressure on natural forests. The project assists India in taking initial steps toward a coordinated national program and policy development for social forestry, and supports expansion of social forestry activities underway in four states.

Agency: AID/ANE

Collaborator(s):

Title: Forestry Planning and Development Project (391-0481)

Framework Code(s): B.1.J

Duration: 1983 - 1991

Country(ies): Pakistan

Funding: \$125,000 est. for relevant activities

Description: The project is designed to encourage planning and management of natural forests. Policy dialogue is a major element of the project. Also included are efforts to increase fuelwood and timber production by establishing tree plantations on underutilized farm land.

Agency: AID/ANE

Collaborator(s):

Title: South Pacific Fisheries Development Project (879-0009)

Framework Code(s): B.1.IV

Duration: 1986 - 1990

Country(ies): South Pacific Island Nations

Funding: NA

Description: Many subprojects are carried out to support fishery development activities in ten South Pacific Island nations. Types of subprojects include training, infrastructure development, equipment and supplies, research and resources monitoring, and export market development. Some subprojects include resource assessments, species inventories, and encouraging capabilities in fisheries resources management.

Agency: AID/ANE

Title: Fisheries Development Project (272-0101.1)

Collaborator(s):

Framework: P.1.III

Duration: 1983 - 1986

Countries: Oman

Funding: \$1,600,000 overall

Description: The project provides a U.S. advisory team to assist the Government of Oman to develop its capacity to manage its fisheries resources and to foster the responsible use of fisheries resources by artisanal fishermen and the private sector.

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Agency: AID/LAC

Collaborator(s):

Title: St. Kitts-Nevis Resource Conservation (538-0108)

Framework Code(s): B.1.III, B.1.V

Duration: 1984 - 1987

Country(ies): St. Kitts - Nevis

Funding: \$500,000 est. for relevant activities

Description: Establish appropriate soil and water management practices in demonstration areas on agricultural lands and strengthen institutional capacity to maintain and extend these management practices.

Agency: AID/LAC

Collaborator(s): Government of St. Vincent (GOSV)

Title: Cumberland Hydroelectric Project (538-0091)

Framework Code(s): R.1.III

Duration: 1984 - 1988

Country(ies): St. Vincent

Funding: \$125,000 est. for relevant activities

Description: Environmental component: Improvement of watershed and land use management capabilities in area affected by dam. Also includes strengthening of GOSV Forestry Division to protect Cumberland watershed area.

Agency: AID/LAC

Collaborator(s): University of the West Indies

Title: Specific Support Grant (538-0000-6001)

Framework Code(s): B.2.III

Duration: 1986

Country(ies): Eastern Caribbean

Funding: \$10,000

Description: Assisting with seminar costs to train government officials in conducting environmental impact assessments.

Agency: AID/LAC

Collaborator(s): Caribbean Conservation Association and Island Resources Foundation

Title: Caribbean Regional Environmental Profile

Framework Code(s): B.1.I

Duration: 1986 - 1988

Country(ies): Eastern Caribbean

Funding: \$125,000

Description: Conducting environmental profiles for Eastern Caribbean LDC's.

Agency: AID/LAC

Collaborator(s): Island Resources Foundation

Title: ST. Kitts Environmental Assessment and Land-use
Management Plan (538-0000)

Framework Code(s): B.2.V

Duration: 1985 - 1986

Country(ies): St. Kitts

Funding: \$37,000

Description: Measuring environmental impact of road project to open peninsula to development. Impacts on existing plant and animal populations are being determined as well as means for minimizing any negative impacts.

Agency: AID/LAC

Collaborator(s): Costa Rican Department of National Parks

Title: Support for the Cano Negro Wildlife Refuge

Framework Code(s): A.1.V

Duration: 1985 - 1987

Country(ies): Costa Rica

Funding: \$40,000 est. for relevant activities (P.L. 480)

Description: The project includes the establishment and funding of an implementation unit at Cano Negro, construction of installations necessary to house staff, and construction of research and training facilities. Short and long-term planning for the refuge will also be undertaken.

Agency: AID/LAC

Collaborator(s): Fundacion Natura

Title: Environmental Education EDUNAT 1 (CPG-518-0031)

Framework Code(s): B.1.I, B.1.II, B.2.II

Duration: 1980 - 1986

Country(ies): Ecuador

Funding: \$50,000 est. for relevant activities

Description: Support to indigenous PVO to raise public awareness on natural resources/environmental issues.

Agency: AID/LAC

Collaborator(s): Fundacion Natura

Title: Environmental Education, EDUNAT II (OPG 518-0043)

Framework Code(s): A.4.II, B.1.II, B.2.II

Duration: 1983 - 1987

Country(ies): Ecuador

Funding: \$135,000 est. for relevant activities

Description: To establish, within the Ecuadorean formal and non-formal education systems, a comprehensive and systematic approach regarding the need for the protection of the natural renewable resource base. Curriculum development emphasizes protection of plants and animals and conservation of ecosystems.

Agency: AID/LAC

Collaborator(s): Government of Ecuador

Title: Forestry Sector Development Project (518-0023)

Framework Code(s): A.1.V, A.3.IV, B.1.III, C.2.III

Duration: 1982 - 1988

Country(ies): Ecuador

Funding: \$150,000 est. for relevant activities

Description: Institution building and field demonstration related to watershed protection and forest protection. Includes agroforestry demonstration and development of management plan for one virgin forest near Quito.

Agency: AID/LAC

Collaborator(s): Government of Guatemala

Title: Small Farmer Diversification Systems (520-0255)

Framework Code(s): B.1.III, B.1.V

Duration: 1981 - 1987

Country(ies): Guatemala

Funding: \$130,000 est. for relevant activities

Description: Environmental component: Construction of small irrigation and soil conservation structures and technical assistance and financing for conservation programs.

Agency: AID/LAC

Collaborator(s): Government of Guatemala

Title: Highlands Agricultural Development (520-0274)

Framework Code(s): B.1.III, B.1.V, C.2.V

Duration: 1983 - 1988

Country(ies): Guatemala

Funding: \$850,000 est. for relevant activities

Description: Environmental component: Construction of small irrigation and soil conservation structures, reforestation, and technical assistance and financing for conservation programs.

Agency: AID/LAC

Collaborator(s): International Institute for Environment and Development

Title: Haiti Country Environmental Profile (521-0122)

Framework Code(s): B.1.I

Duration: 1985 - 1986

Country(ies): Haiti

Funding: \$42,500

Description: Preparation of country environmental profile as means of raising awareness and establishing dialogue on natural resources and environmental issues.

Agency: AID/LAC

Collaborator(s): Government of Honduras

Title: Natural Resources Management Project (522-0168)

Framework Code(s): B.1.III, E.1.V, C.1.III, C.1.IV, C.1.V,
C.2.IV, C.2.V

Duration: 1980 - 1987

Country(ies): Honduras

Funding: \$2,143,000 overall

Description: Training and technical assistance on natural resource data acquisition and analysis and watershed management, including soil and water conservation, improved farming practices, reforestation, range improvement and women-in-development activities.

Agency: AID/LAC

Collaborator(s): Honduran Ecology Association

Title: Environmental Education II Program (OPG 522-0234)

Framework Code(s): B.1.II, B.1.III

Duration: 1983 - ongoing

Country(ies): Honduras

Funding: \$34,187 est. for relevant activities

Description: Environmental education and awareness including institutional development, fund-raising and project management.

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Agency: AID/LAC

Collaborator(s):

Title: Agricultural Education (532-0082)

Framework Code(s): B.2.II, B.2.III

Duration: 1984 - 1988

Country(ies): Jamaica

Funding: \$20,000 est. for relevant activities

Description: Environmental component: Develop integrated pest management curriculum in college and secondary agricultural schools.

Agency: AID/LAC

Collaborator(s): Conservation Foundation

Title: State of the Environment Report

Framework Code(s): B.1.I

Duration: 1985 - 1986

Country(ies): Mexico

Funding: \$65,000 centrally funded

Description: Research to determine the actual state of the environment; evaluate adequacy of available data for design, implementation and monitoring of environmental programs; and identifying policy options for planning purposes.

Agency: AID/LAC

Collaborator(s): U.S. Forest Service

Title: PASA Forestry Agreement (BLA-0616-P-AG-5081-00)

Framework Code(s): B.1.III, C.2.III, D.III

Duration: 1985 - 1986

Country(ies): Mexico

Funding: \$72,000 est. for relevant activities

Description: Training in tree nursery establishment and management and seed collection and storage. Technical assistance in resource management planning and watershed management as well as commercial timber activities.

Agency: AID/LAC

Collaborator(s): Government of Panama (RENARE)

Title: Watershed Management (525 - 0191)

Framework Code(s): A.1.I, A.1.III, A.1.V, B.1.I, B.1.III, B.1.V

Duration: 1979 - 1986

Country(ies): Panama

Funding: \$1,370,000 overall

Description: Technical assistance, training, institutional development, management and protection activities for three critical watersheds. Included development of a national conservation strategy, including assessments of unique wildlife and wildlife reserves. Various types of tropical forest ecosystems brought under some form of protection.

Agency: AID/LAC

Collaborator(s): World Wildlife Fund-U.S. and Fundacion PANAMA

Title: Natural Resources Education (525-0257)

Framework Code(s): A.4.II, B.1.II

Duration: 1984 - 1988

Country(ies): Panama

Funding: \$200,000 est. for relevant activities

Description: Technical assistance, training and institutional development for Panamanian PVO's to increase protection, management, and conservation activities throughout the country.

Agency: AID/LAC

Collaborator(s): International Institute for Environment and Development

Title: Central American Regional Environmental Profile

Framework Code(s): B.1.I

Duration: 1984 - 1986

Country(ies): Central American

Funding: \$52,000 est. for relevant activities

Description: Regional assessment of environmental and natural resources management problems, priorities and institutional capabilities with recommendations for action.

Agency: AID/LAC

Collaborator(s): Central American Bank for Economic Integration
(CABEI)

Title: NA

Framework Code(s): R.1.III

Duration: NA

Country(ies): Central American

Funding: \$30,000 est. for relevant activities

Description: Placement of senior environmental advisor with
CABEI.

Agency: AID/LAC - ROCAP

Collaborator(s):

Title: Integrated Pest Management (596-0110)

Framework Code(s): B.2.III, P.2.IV

Duration: 1984 - 1989

Country(ies): Guatemala

Funding: \$1,125,000 est. for relevant activities

Description: Provides research, training and technical assistance to strengthen the institutional capacity for crop protection and integrated pest management in Central America.

Agency: AID/LAC

Collaborator(s):

Title: Grant to The Nature Conservancy International (TNCI)

Framework Code(s): A.1.III, A.3.III

Duration: 1986

Country(ies): Selected Central and South American

Funding: \$123,000

Description: This matching grant to TNCI is to assist with training, information and technology transfer and networking activities for a system of conservation Data Centers in selected Latin American Countries

Agency: AID/LAC

Collaborator(s): Darwin Research Station

Title: Specific Support Grant

Framework Codes(s): A.1.IV, A.3.IV

Duration: 1986

Country(ies): Ecuador

Funding: \$300,000 (\$150,000 P.L. 480; \$150,000 AID)

Description: Support for research and general management on the Galapagos Islands.

Agency: AID/LAC

Collaborator(s): Government of Dominican Republic (GODR)

Title: Natural Resources Management (517-0126)

Framework Code(s): F.1.I, B.1.II

Country(ies): Dominican Republic

Funding: \$180,000 for relevant activities

Description: Strengthen GODR capability to effectively develop the country's natural resources and to establish soil and watershed conservation model to help arrest the degradation of natural resources.

Agency: AID/LAC

Collaborator(s): Government of Peru

Title: Central Selva Resource Management (527-0244)

Framework Code(s): B.1.III, C.1.III, C.2.IV

Duration: 1982-1987

Country(ies): Peru

Funding: \$500,000 est. for relevant activities

Description: Institutionalize methodology for long-range management of high jungle areas, including appropriate forestry and agriculture practices.

Agency: AID/ST/FENR

Collaborator(s): FWS

Title: Biological Conservation in Development (936-5550)

Framework Code(s): A.4.III

Duration: 1986 - 1987

Country(ies): various

Funding: \$250,000

Description: This RSSA between AID and FWS provides for the services of a technical advisor on biological diversity to AID and for a number of small activities related to the provision of technical assistance to the Agency and its overseas Missions for implementation of Section 119 of the Foreign Assistance Act. Includes development of an education/awareness video on biological diversity and initial matching grant support for protected area activities in Madagascar.

Agency: AID/ST/FENR

Collaborator(s): USDA/OICD; Forest Service; Peace Corps

Title: Forest Resources Management Project (936-5519)

Framework Code(s): B.1.I, B.1.III, B.1.V, C.2.I, C.2.III, C.2.V

Duration: 1980 - 1990

Country(ies): All A.I.P. countries in I.AC, AFR and ANF

Funding: \$2,000,000 overall

Description: Mobilizes government, university, private sector and Peace Corps resources in support of A.I.D. forestry and related natural resources development activities.

Agency: AID

Collaborator(s):

Title: Environmental Planning and Management (936-5517)

Framework Code(s): A.1.I, A.2.I, B.1.I, B.2.I

Duration: 1982 - 1989

Country(ies): various

Funding: \$855,000 overall

Description: The EPM project focuses on four thematic areas:

1. The planning, preparation and dissemination of country environmental profiles, national conservation strategies and other similar national level studies that provide an improved data base for natural resources and environmental planning including wildlife, parks and protected areas.
2. Institution building of non-governmental environmental organizations in LDCs to enable them to contribute to public policy and awareness;
3. The development of methods for better understanding the relationships among complex national systems as a basis for education, determining research priorities and improved economic planning; and
4. Developing linkages between the ecological and environmental sciences to improve the sustainability of agricultural development.

During FY 1986 work continued on the preparation of country environmental profiles in Bolivia, Haiti, Jamaica, Central America and on national conservation strategies for Botswana, Nepal and Sri Lanka. Support was provided for the preparation of a natural resources profile for Thailand and a new regional environmental profile for the Caribbean.

Work with Environmental NGOs was conducted in Ecuador, Haiti, Bolivia, the Philippines and Indonesia.

Agency: AID

Collaborator(s): The University of Rhode Island, Ecuador, Directorate for the Environment, Sri Lanka, Coast Conservation Department; Thailand, National Environment Board.

Title: Coastal Resources Management (936-5518)

Framework Code(s): A.1.I, A.1.III, A.2.I, A.2.III, B.1.I, B.1.II, B.1.III, B.1.IV, B.2.I, B.2.II, C.2.I, C.4.I, C.4.II

Duration: 1985 - 1989

Country(ies): Sri Lanka, Ecuador, Thailand

Funding: \$650,000 overall

Description: Coastal Resources Management Project. The purpose of this project, being administered by the Bureau for Science and Technology's Office of Forestry, Environment, and Natural Resources (S&T/FENR), is to provide assistance to developing countries in fostering better management approaches to the development of their coastal resources in pursuit of sustained economic growth.

During FY 1986 the Coastal Resources Management Project in Sri Lanka focussed attention on providing assistance to the Coast Conservation Department (CCD) to complete a preliminary draft of the National Coastal Zone Management Plan. Major issues addressed in the document included protection of coastal habitats, erosion management, and protection of historical and archaeological sites. In Ecuador an international workshop on the development of an integrated strategy for a sustainable shrimp mariculture industry was held in Ecuador. In preparation for this workshop, eleven background papers on various aspects of the industry in the overall context of coastal resources management were prepared by a team of U.S. and Ecuadorian experts. Environmental profiles of the five coastal provinces were initiated using a local non-governmental organization, Fundacion Maldonado. Initial project planning efforts were undertaken in Thailand.

Agency: AID

Collaborator(s):

Title: Small Activities Grant to The Nature Conservancy
International

Framework Code(s): A.1.III, A.3.III

Duration: 1986 - 1987

Country(ies): Latin America

FY 1986 Funding: \$143,000

Description: Matching grant to The Nature Conservancy
International for 50% of the first year costs of two new
Conservation Data Centers in selected Latin American Countries.

Agency: AID/ST/RD

Collaborator(s): various

Title: Development Strategies for Fragile Lands project (936-5438)

Framework Code(s): A.1.I, A.1.II, A.1.III, B.1.I, B.1.II, B.1.III, B.1.IV, B.1.V, C.1.I, C.1.IV, C.1.V, C.2.I, C.2.IV, C.2.V

Duration: 1986 - 1995

Country(ies): Latin American/Caribbean

FY 1986 Funding: \$570,000 overall

Description: The Development Strategies for Fragile Lands Project helps less-developed countries improve national and regional strategies for management of fragile lands--steep slopes and humid tropical forests. Adequate attention to these regions will help preserve wildlife habitat, and will enable development of sound natural resource management programs in fragile land areas. The project will assess fragile lands problems; develop strategies for addressing them, identify and adapt available technology for use in fragile lands management; facilitate donor cooperation/ promote research networks; and conduct short-term research.

Agency: AID/SCI

Collaborator(s): various

Title: Office of the Science Advisor's Small Grants Programs
(PSTC, CDR, etc.)

Framework Code(s): B.2.IV, C.1.IV, C.2.IV, C.3.IV, C.4.IV, D.IV

Duration: ongoing

Country(ies): various

Funding: A=0 B=\$1,483,847 C=\$936,927 D=\$1,007,352
EF=\$299,150

Description: Small grants for research related to development needs. During Fy 1986 27 grants were within the areas of natural resources and environmental management (13); enhanced agricultural (3) forestry (3) or livestock (10) production, or related to genetic resources (7).

The grants competition is open to U.S. investigators and applicants may be affiliated with universities, non-profit or for-profit organizations, and/or government laboratories. PSTC gives highest priority to submissions from scientists in those developing countries which receive USAID development assistance. Cooperation with U.S. scientists is encouraged, but not required.

Grants of up to \$150,000 are made for innovative research that can be readily applied to serious developing country problems. Research areas include biotechnology/immunology, plant biotechnology, chemistry for world food needs, biomass resources and conversion technology, biological control, and diversity of biological resources.

Agency: AID/FVA

Collaborator(s):

Title: Wildlands and Human Needs Grant

Framework Code(s): A.1.II, A.1.V.

Duration: FY 85-87

Country(ies): Latin American/Africa

Funding: \$335,000

Description: The World Wildlife Fund-US (WWF-US) with a matching grant from the Agency for International Development (AID) has initiated a three-year program to develop field management practices which will conserve wildland resources while responding to the development needs of local populations. A coherent set of projects will be established in selected countries in Latin America, the Caribbean and Africa which integrate the conservation of biological resources with the sustainable utilization of these natural ecosystems by rural peoples.

The Wildlands and Human Needs Program was initiated in October 1985. At the time of this writing, eleven projects have been funded in Latin America and the Caribbean and four African projects are in the proposal development stage. Countries with projects include: Mexico, Guatemala, Costa Rica, Dominica, St. Lucia, Barbados, Peru and Ecuador. Proposed African countries are: Madagascar, Malawi, Central African Republic and Zambia. Model projects have ranged from the implementation of a multiple-use resource management plan for the giant two-and-a-half-million-hectare Pacaya Camiria National Reserve in the Peruvian Amazon, to the development of an integrated Central American Wildlife refuge manager workshop.

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Agency: AID/S&T/FENR

Collaborator: The Conservation Foundation

Title: Grant

Framework Code(s): B.2.I, B.2.III

Duration:

Country(ies): Latin American and Asia

Funding: \$112,000

Description: Grant to the Conservation Foundation to support its program to provide information to selected countries on policy issues and management of hazardous wastes and toxic substances.

Agency: AID/ST/AGR

Collaborator(s): University of Maryland, University Rhode Island,
University of Washington

Title: Stock Assessment Fisheries - CRSP - 936-4146)

Framework Code(s): A.2.III, A.2.IV, C.4.III, C.4.IV

Duration: ongoing

Country(ies): Philippines, Costa Rica

Funding: \$750,000 overall

Description: To develop means of adequately determining fish stock sizes in tropical countries with the ultimate goal of refining fishery management practices in developing countries.

*CRSP=Cooperative Research Support Program

Agency: AID/ST/AGR

Collaborator(s): University of Hawaii

Title: Symbiotic N - Fixation (NIFTAL) (931-0631)

Framework Code(s): C.1.III, C.1.IV, D.III, D.IV

Duration: 1975 - 1988

Country(ies): various

Funding: \$650,000 overall

Description: To develop practical ways to enable tropical legume crops to capture nitrogen from the air and to increase the use of tropical legumes. Includes establishment of important microbial germplasm collections.

Agency: AID/ST/AGR

Collaborator(s): USDA/Soil Conservation Service

Title: Soil Management Support Services

Framework Code: B.1.III, C.1.III

Duration: ongoing

Country(ies): various

Funding: \$750,000 overall

Description: To help developing countries improve their capability for managing and conserving vital soil resources for agricultural production and improve their capacity to use soil surveys and interpretations as a means of improving the applicability and transfer of agricultural information.

Agency: AID/ST/AGR

Collaborator(s): North Carolina State University, Cornell University, University of Hawaii, Texas A&M University, CIP, CIAT, ICRISAT

Title: Soil Management CRSP (931-1311)

Framework Code(s): B.1.IV, C.1.IV, C.2.IV

Duration: ongoing

Country(ies): various including Brazil, Indonesia, Mali, Niger and Peru

Funding: \$2,950,000 overall

Description: To develop economical and acceptable practices for small farmers to increase the productivity of tropical soils while protecting them from both short-term and cumulative damage and to enlarge the pool of scientists to work on soil management problems in the developing countries.

Agency: AID/ST/AGR

Collaborator(s): USDA/Cooperative States Research Service

Title: Bio-Technology Limiting (931-0610)

Framework Code(s): C.1.IV, D.IV

Duration: 1976 - 1988

Country(ies): Various including Sudan, Malawi, Egypt, Tunisia, Guyana, Turkey, Thailand, Morocco, Panama, Senegal, Brazil, Costa Rica, Mexico, Dominican Republic, Kenya, Honduras, Nepal, Venezuela

Funding: \$350,000 for relevant activities

Description: To develop the use of biotechnology to solve problems limiting agricultural production of food fiber and fuel in developing countries. Includes creation of a collection of important microbial strains.

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Agency: State

Collaborator: Concerned U.S. Government Departments and Agencies

Title: Participation in Multilateral Fora Concerned with Issues
Related to Biological Diversity

Framework Code(s): A.1.I, A.2.I

Duration: Continuing

Country(ies): Global

Funding: NA

Description: The Department of State funds and actively participates in international organizations and conventions which further the aims of increased conservation of biological diversity. Chief among these are the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), World Heritage, and the Convention for the Protection of the Marine Environment of the Wider Caribbean Region. In 1986, the Department of State also deposited a notice of intent to accede to the Convention on Wetlands of International Importance, especially the Waterfowl Habitat (Ramsar Convention). The U.S. will officially become a member of this biodiversity enhancing convention in the spring of 1987.

Agency: State

Collaborator(s): Concerned U.S. Government Departments and Agencies

Title: Development of Bilateral Agreements in Furtherance of
Conserving Biological Diversity

Framework Code(s): A.2.I

Duration: Continuing

Country(ies): Global

Funding: NA

Description: The Department of State works with foreign governments to set up coordinated measures to protect endangered and threatened wildlife and their environments. During 1986 the United States signed a draft agreement with the Government of Canada to manage and conserve the Porcupine Caribou Herd. Meetings of the Joint Committee on the Environment were held in Panama supported by the American Embassy. The U.S. played an instrumental role in persuading the Government of Singapore to reform its wildlife trade practices.

Agency: State

Collaborator(s): Concerned U.S. Government Departments and Agencies

Title: Communication with Foreign Governments on the Importance of Biological Diversity Issues

Framework Code(s): A.1.I, A.2.I

Duration: Continuing

Country(ies): Global

Funding: NA

Description: The Department of State communicates with foreign governments through Foreign Service posts overseas on issues affecting biological diversity. Foreign Service posts in return provide on-the-spot information, often not available through other sources, on habitat and diversity issues which the Department of State collates, analyzes and disseminates to other interested organizations and individuals. During 1986, for example, the Department provided information on the dangers facing several species in Africa, particularly the rhino.

USDA-1

Agency: USDA/Forest Service

Collaborator(s):

Title: Science and Technology Initiative US - India

Framework Code(s): D.IV

Duration: 1986

Country(ies): India

Funding: \$200,000 (jointly-funded)

Description: Exchanges of poplar clones and Eucalyptus species

Agency: USDA/Agricultural Research Service

Collaborator(s): International Board on Plant Genetic Resources
(IBPGR)

Title: Germplasm Databank Management Course

Framework Code(s): D.III

Duration: 1986

Country(ies): China, Poland, Morocco, Tunisia, Yugoslavia,
Ecuador, Egypt, India, Mexico

Funding: NA

Description: ARS provided staff to instruct an IBPGR 3-week
training course on germplasm databank management at Beltsville,
Maryland.

Agency: USDA/Agricultural Research Service

Collaborator(s): AID

Title: Germplasm Exchanges

Framework Code(s): D.III

Duration: Ongoing

Country(ies): 123

Funding: NA

Description: Some 95,854 germplasm samples were sent to 123 countries. An additional 3196 samples were sent to 40 countries under AID contract.

Agency: USDA/Agricultural Research Service

Collaborator(s): IBPGR

Title: IBPGR Agreements on Preservation and Evaluation of Germplasm

Framework Code(s): D.IV

Duration: ongoing

Country(ies): N/A

Funding: N/A

Description: N/A

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Agency: USDA/Agricultural Research Service

Collaborator(s):

Title: Plant Exploration - Germplasm Collection

Framework Code(s): D.IV

Duration: 1986

Country(ies): Brazil, Mexico, Japan, Korea, Taiwan, Bolivia,
Turkey, Australia

Funding: NA

Description: Germplasm collection trips.

Agency: NOAA/NMFS

Collaborator(s): AID

Title: Caribbean Marine Profiles

Framework Code(s): B.1.I

Duration: 1984 - 1986

Country(ies): Caribbean-wide

Funding: FY 86 with FY 87 carryover in total amount of \$20,000, funded by A.I.D. through a Participating Agency Services Agreement with NOAA (Oceans and Atmospheric Research Service and the National Marine Fisheries Service).

Description: Preparation of "Caribbean Marine Resources: Opportunities for Economic Development". Includes chapters on (1) fisheries and aquaculture resources; (2) nearshore marine habitats; (3) geological and non-living resources; and (4) human resources; education, training and technical support, as well as annexes for country notes. Describes the constraints, opportunities, and requirements for economic development and resource management, and makes recommendation for development assistance. The profile will be used by the A.I.D. Regional Bureau or Latin America and the Caribbean to consider funding for marine resource projects.

Agency: NOAA/NMFS

Collaborator(s): FWS, DOS, Louisiana State Un., Auburn Un., Un. of Alabama, Mote Marine Laboratory, FL)

Title: MEXUS-GULF

Framework Code(s): B.1.IV

Duration: ongoing

Country(ies): Mexico (other Caribbean countries have expressed interest)

Funding: \$22,500

Description: The Southeast Fisheries Center of NOAA/NMFS and the Instituto Nacional de Pesca of the Mexican Ministry of Fisheries, sponsor MEXUS-GULF. MEXUS-GULF is a fishery research and technology program with the focus on cooperative projects of mutual interest in the Gulf of Mexico and the Caribbean. The MEXUS-GULF program has led and will lead to improved understanding of the marine environment and the living resources shared by both countries, which hopefully implies benefits for all concerned.

Agency: NOAA/NMFS

Collaborator(s): FWS, FAO

Title: Western Atlantic Symposium (WATS II)

Framework Code(s): A.2.I., A.2.IV

Duration: 1983 - 1987

Country(ies): Western Atlantic Countries - Anguilla, Antigua, Bahamas, Barbados, Belize, British Virgin Islands, Cayman Islands, Colombia, Costa Rica, Dominica, Dominican Republic, French Guiana, Grenada, Guadeloupe, Guatemala, Guyana, Haiti, Honduras, Jamaica, Martinique, Mexico, Monserrat, Nicaragua, Panama, Puerto Rico, St. Kitts-Nevis, St. Lucia, St. Vincent, Surinam, Trinidad-Tobago, Turks-Caicos, U.S. Virgin Islands, United States of America, and Venezuela. In addition, Brazil, Cuba, and Netherland Antilles have been invited and are expected to attend. Three countries--Canada, Uruguay, and Argentina--have been requested to send official observers.

Funding: \$71,500

Description: WATS II is sponsored by the Intergovernmental Oceanographic Commission and its Sub-Commission for Caribbean and Adjacent Regions (IOCARIBE). All 38 countries in the Western Atlantic with nesting sea turtle populations are invited to officially participate by designating a national representative and preparing a national report on sea turtle populations and socioeconomics. A Symposium will be held October 12-16, 1987, in Mayaguez to consider status of stocks and management options.

Agency: NOAA/NOS

Collaborator(s):

Title: International Marine Protected Area Management Seminar
June 1-12, 1986

Framework Code(s): A.1.III

Duration: 1986

Country(ies): various

Funding: NA

Description: The Seminar focused on the approaches available for the protection and sustainable use of various types of designated marine areas including marine national parks, fisheries and marine wildlife reserves, and protected underwater historical resources. The major tropical, warm temperate, and cold marine regions were represented including the Caribbean, North Atlantic, Mediterranean, South and Western Pacific, Indian Ocean and others.

Agency: NPS

Collaborator(s): AID, IUCN

Title: National Resources Management Plan-Africa

Framework Code(s): B.I.I

Duration: 1986

Country(ies): African

Funding: \$10,180 (A.I.D.)

Description: Prepare a Natural Resource Management Plan for Africa which will provide broad guidance to AID Missions in Africa concerned with choosing sound environmental and natural resource interventions in support of national agriculture and socio-economic development goals.

Agency: NPS

Collaborator(s): FAO

Title: NPS/FAO/Latin America Network on Parks Cooperation

Framework Code(s): A.1.III

Duration: ongoing

Country(ies): Argentina, Chile, Peru, Colombia, Paraguay,
Panama, Costa Rica

Funding: \$10,000

Description: Coordination and liaison with FAO and Latin America Network on information exchange, training and news letter publication on parks and protected areas and wild fauna and flora.

Agency: NPS

Collaborator(s): AID/AFR

Title: Coastal Resources Conservation for West African Region

Framework Code(s): B.1.III

Duration: 1986

Country(ies): West African

Funding: \$15,000
\$90,000 (AID/AFR)

Description: Develop and coordinate multi-national data base summary of coastal resources and hold multi-national conference on coastal resource planning and management.

Agency: NPS

Collaborator(s): UNEP, ASEAN

Title: Planning for ASEAN Heritage Parks

Framework Code(s): A.1.I.

Duration: 1986

Country(ies): ASEAN = Philippines, Indonesia, Malaysia,
Thailand, Sri Lanka

Funding: \$5,000

Description: Work with ASEAN member states' agency personnel to
develop a report and recommendations for : Planning for ASEAN
Heritage Parks.

Agency: NPS

Collaborator(s): Peace Corps, WWF

Title: Parks and Wildlife Pre-service Training - Peace Corps

Framework Code(s): A.4.III

Duration: 1986

Country(ies): Belize, Lesotho, and Malawi

Funding: \$9,000 (for 3 courses)

Description: Design, develop course curriculum and teach courses to provide Peace Corps Volunteers with overview of park and wildlife management technical and planning skills.

Agency: NPS

Collaborator(s):

Title: Training for Parks and Protected Area Managers

Framework Code(s): A.1.III

Duration: 1986

Country(ies): Brazil

Funding: \$3,800 (trained 28 participants)

Description: Three week training course for Brazilian forestry and environment field staff in protected area management.

Agency: NPS

Collaborator(s): AID

Title: Protected Area Management in Burma

Framework Code(s): A.1.III

Duration: ongoing

Country(ies): Burma

Funding: \$300,000 (PL-480)

Description: Develop a program of cooperation with Government of Burma to assist in aspects of protected area planning, development and staff training.

Agency: NPS

Collaborator(s): AID, CATIE, Colorado State University

Title: Watershed Management Course

Framework Code(s): B.1.III.

Duration: 1986

Country(ies): Central American

Funding: \$6,000

Description: Provide visiting lecturer for watershed management course at CATIE.

Agency: NPS

Collaborator(s): U.S. Forest Service, FS/AID Forestry Support Program, Peace Corps

Title: USFS/NPS Fire Training Consultation

Framework Code(s): B.1.III

Duration: 1986

Country(ies): Costa Rica

Funding: \$20,000

Description: Develop and conduct fire management training course.

Agency: AID

Collaborator(s): NPS, University of Rhode Island

Title: Regional Coastal Management Training Program

Framework Code(s): B.1.III

Duration: 1986

Country(ies): Ecuador

Funding: \$10,000

Description: Create training program and materials for coastal resources management. NPS prepared program and materials.

Agency: NPS

Collaborator(s): various

Title: Foreign Personnel Orientation/Training

Framework Code(s): A.1.III

Duration: ongoing

Country(ies): various

Funding: \$25,000 (for 5 participants from India)

Description: Provide U.S.-based training and professional development, especially in the areas of parks interpretation training.

Agency: NPS

Collaborator(s): Government of India, Center for Environmental Education

Title: Interpretation Planning and Design: Kanha N.P. and New Delhi Zoological Park

Framework Code(s): A.1.II

Duration: 1985 - 1987

Country(ies): India

Funding: \$100,000 (PL-480)

Description: To complete joint recommendations and technical design and production requirements for in-place interpretation programs and materials.

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Agency: NPS

Collaborator(s): Department of Environment - India, Indian Institute of Science, Smithsonian Institution, The Nature Conservancy

Title: Indo - U.S. Cooperation Programs on Conservation of Biological Diversity

Framework Code(s): A.1.III

Duration: 1986

Country(ies): India

Funding: NA

Description: Coordinate workshop of US and India scientists to develop a program of promoting Biosphere Reserves for the conservation of India's natural ecosystems, including research and educational activities to support sustainable use and management.

Agency: NPS

Collaborator(s): Wildlife Institute of India

Title: Specialized Interpretive Training Series

Framework Code(s): A.4.III

Duration: 1986

Country(ies): India

Funding: NA

Description: To develop training workshops on wildlife interpretation.

Agency: NPS

Collaborator(s): Department of Forests and Wildlife, Wildlife Institute of India, Madhya Pradesh Wildlife Department

Title: Interpretative Staff Training

Framework Code(s): A.4.III

Duration: 1986 - 1987

Country(ies): India

Funding: \$30,000 (PL-480)
\$35,000 others

Description: Provide training to staff for interpretative services at both sites with emphasis on practical instruction.

Agency: NPS

Collaborator(s): IUCN

Title: East Africa Law and Regulations Training

Framework Code(s): A.2.III

Duration: 1986

Country(ies): Kenya

Funding: \$1,760

Description: Send B. Kamugasha, High Court Judge of Uganda and Trustee, Uganda National Parks Board to Naiusa College, Kenya, to lecture trainees on "Law and Wildlife Conservation" and "Law Enforcement".

Agency: NPS

Collaborator(s): IUCN, UNEP

Title: IUCN Latin America Wetlands Initiative

Framework Code(s): A.1.I

Duration: 1986

Country(ies): Latin America

Funding: \$3,800

Description: Participation in international wetlands meeting in Brazil.

Agency: NPS

Collaborator(s): IUCN

Title: Training Manual for Management of Latin America Wildland Areas

Framework Code(s): A.1.III

Duration: 1986

Country(ies): Latin American

Funding: \$22,220

Description: Produce a Spanish language training manual containing suggested curriculum and lesson plans for eleven-week training course.

Agency: NPS

Collaborator(s): various

Title: Neotropical Action Plan of the Commission on National Parks and Protected Areas.

Framework Code(s): A.1.I

Duration: 1986

Country(ies): Latin America Region

Funding: \$26,350

Description: NPS attendance at Neotropical Realm meeting in Bariloche, Argentina, attended by representatives from 21 countries. Support publication of the Neotropical Action Plan. Provide analysis of general protected area needs and training needs for protected area management within the region.

Agency: NPS

Collaborator(s): Government of Mexico, Government of Zimbabwe

Title: Science in National Parks Conference

Framework Code(s): A.1.IV

Duration: 1986

Country(ies): Mexico, Zimbabwe

FY 1986 Funding: \$6,000

Description: Travel support for Mexican and Zimbabwean officials to participate in conference.

Agency: NPS

Collaborator(s): Antonio Narro Un., Texas A&M Un., USFWS

Title: SEDUE Mid-level Park Managers Training

Framework Code(s): A.1.III

Duration: 1986

Country(ies): Mexico

Funding: \$13,000

Description: Conducted a course in protected areas operations to train mid-level managers of the Secretariat for Urban Development and Ecology (SEDUE) in the management and operations of protected areas.

Agency: NPS

Collaborator(s): Peace Corps

Title: Peace Corps Assistance to Morocco in National Park
Development and Conservation

Framework Code(s): A.1.III

Duration: ongoing

Country(ies): Morocco

Funding: \$3,000

Description: Assistance to Peace Corps Volunteers assigned to
ministry of Agriculture and National Parks to develop capacity of
ministry for park management and species protection and other
resource activities.

12-

Agency: NPS

Collaborator(s): IUCN,WWF

Title: Strengthening Management of Nigerukewid Islands Wildlife Reserve

Framework Code(s): A.1.V

Duration: 1986

Country(ies): Palau

Funding: \$1,000

Description: Technical assistance to conduct assessment and review of management issues, including fishing and tourism pressures. Prepare management plan.

126

Agency: NPS

Collaborator(s): Panamanian Foundation for National Parks and the Environment

Title: Development of National Park Interpretative Capability in Panama

Framework Code(s): A.1.III

Duration: 1986

Country(ies): Panama

FY 1986 Funding: \$6,000

Description: Provide interpretive specialist for technical assistance to Panama National Parks to strengthen interpretive capabilities.

Agency: NPS

Coliaborator(s): various

Title: Rio Abiseo National Park Protection Plan

Framework Code(s): A.1.V

Duration: 1986

Country(ies): Peru

Funding: \$5,777

Description: Technical assistance to Rio Abiseo National Park staff for development of a protection plan.

138

Agency: NPS

Collaborator(s): A.I.D., IUCN, Sri Lanka Department Wildlife

Title: Management Plan Workshop

Framework Code(s): A.1.V

Duration: 1986

Country(ies): Sri Lanka

Funding: \$10,000 (NPS)
\$11,160 (A.I.D.)

Description: Workshop to design format for producing park management plan in Mahaweli Project area. NPS designed and implemented workshop and prepared management plan.

Agency: NPS

Collaborator(s): IUNC, WWF

Title: Information Exchange -- College of African Wildlife
Management - Mweka

Framework Code(s): A.1.III

Duration: 1986

Country(ies): Tanzania

Funding: \$500

Description: Provide text and field manual for parks and
protected areas course.

Agency: NPS

Collaborator(s): WWF, IUCN, UNESCO, CARIMO, US-ICAMOS, and A.I.D.

Title: National Conference on National Parks in the Eastern Caribbean

Framework Code(s): A.1.I

Duration: 1986-1987

Country(ies): Trinidad and Tobago

Funding: \$10,000

Description: Direction and technical assistance in planning and implementing conference.

Agency: NPS

Collaborator(s): A.I.D., Sierra Club, Yale University

Title: Natural Resources Technical Bulletin

Framework Code(s): B.1.III

Duration: 1986

Country(ies): various

Funding: \$1,000 (NPS)
\$8,000 (A.I.D.)

Description: Bulletin to disseminate information to developing countries on planning and resource management. Project managed by NPS.

1972

Agency: NPS

Collaborator(s): A.I.D., Winrock, National University of Costa Rica

Title: Workshop on Planning and Management of Development in the Humid Tropics

Framework Code(s): B.1.III

Duration: 1986

Country(ies): various humid tropical countries

Funding: \$20,000 (NPS)
\$94,432 (A.I.D.)

Description: Workshop to train officials in the development of training programs related to the planning and management of development in the humid tropics. Examined basic ecological principles, alternative development studies. NPS coordinated workshop.

Agency: NPS

Collaborator(s): A.I.D., Island Resources Foundation

Title: International Network of Coastal Zone Planning and Management

Framework Code(s): B.1.III

Duration: ongoing

Country(ies): various

Funding: \$ 1,000 (NPS)
\$10,000 (A.I.D.)

Description: Networking activities on coastal resources management.

Agency: NPS

Collaborator(s): A.I.D

Title: Planners Guide to Coastal Areas Management and Planning

Framework Code(s): B.1.IV

Duration: 1986

Country(ies): various

Funding: \$ 1,000 (NPS)
\$30,000 (A.I.D.)

Description: literature research and assessment of present state of coastal resources planning and management, analysis of information and preparation of guidebook for A.I.D. Conducted by NPS.

142

Agency: NPS

Collaborator(s): IUCN, Parks Canada, FAO, UNEP, UNESCO,
WWF/International, WWF/US, Australia, New Zealand

Title: PARKS Magazine - Spanish Edition

Framework Code(s): A.1.III

Duration: ongiong

Country(ies): various/target here is Latin America

Funding: \$30,000

Description: Produce Spanish language version of PARKS Magazine covering subjects in areas of planning, use and management of world's national parks and other protected natural and cultural resources.

Agency: NPS

Collaborator(s): World Heritage Convention Member States, IUCN

Title: Federal Inter-Agency Panel for World Heritage

Framework Code(s): A.1.III

Duration: ongoing

Country(ies): various

Funding: \$10,000

Description: Information exchange, technical assistance and training related to World Heritage Convention Activities.

Agency: NPS

Collaborator(s): various

Title: Information Exchange and Reference Library

Framework Code(s): A.1.IV

Duration: ongoing

Country(ies): various

FY 1986 Funding: \$3000

Description: Maintain library of reference materials on parks and protected areas and make available upon request to interested parties.

190

Agency: NPS

Collaborator(s): University of Michigan, Parks Canada

Title: International Seminar on Parks and Equivalent Reserves

Framework Code(s): A.1.III

Duration: annual

Country(ies): various

Funding: \$60,000

Description: Traveling seminar for foreign parks professionals which emphasizes global perspective, diversity of habitat, resource protection and staff development. The seminar examines policies, administration, planning, and other management aspects of national parks and equivalent reserves.

Agency: NPS

Collaborator(s): University of Michigan, A.I.D., WWF

Title: Marine and Coastal Parks International Seminar

Framework Code: A.1.III

Duration: 1986

Country(ies): various (28, participants from 23 countries)

FY 1986 Funding: \$15,000 for 10 Western Hemisphere Participants

Description: Travelling seminar for foreign natural resource professionals focusing on training in coastal and marine park protection.

100

Agency: FWS

Collaborator(s): AID/ANE, Environmental Problems Foundation of Turkey (EPFT)

Title: Biological Diversity Issues in Turkey

Framework Code(s): A.4.I, A.4.II

Duration: 1986

Country(ies): Turkey

Funding: \$ 4,700 (FWS)
13,300 (AID/ANE)
5,900 (EPFT)

Description: EPFT will conduct a survey on biological diversity issues and concerns in Turkey and publish the findings in Turkish and English. EPFT will also publish a non-technical booklet on the importance of conserving biological diversity.

Agency: FWS

Collaborator(s): AID/ANE, Holy Lands Conservation Fund (HCF)

Title: Bird Migration in the Near East

Framework Code(s): A.3.II

Duration: 1986

Country(ies): Near Eastern

Funding: \$ 3,300 (FWS)
\$24,000 (AID/ANE)
\$46,300 (others)

Description: HCF will produce a poster on bird migration in the Near East, plus books on game birds and on reptiles and amphibians of the area. HCF will also compile a directory of conservation organizations and agencies in the Near East and Arid South Asia.

Agency: FWS

Collaborator(s): AID/ANE, Government of Oman (GOO)

Title: Oman Sea Turtle Management Plan

Framework Code(s): A.2.V

Duration: 1986

Country(ies): Oman

Funding: \$ 2,700 (FWS)
\$13,100 (AID/ANE)
\$ 6,000 (GOO)

Description: Update of Oman's sea turtle management plan.

203

Agency: FWS

Collaborator(s): AID/ANE, Royal Society For the Conservation of Nature (RSCN)

Title: Conservation Education

Framework Code(s): B.1.II

Duration: 1986

Country(ies): Jordan

Funding: \$2,000 (FWS)
\$6,700 (AID/ANE)
\$2,300 (RSCN)

Description: FWS coordinated travel of the Education Director, RSCN, to the U. S. and arranged a series of meetings and field trips dealing with conservation education. A seminar on nature conservation clubs was held during the visit.

Agency: FWS

Collaborator(s): AID/ANE, various

Title: Near East Biological Diversity Plan

Framework Code(s): A.4.I

Duration: 1986

Country(ies): Near Eastern

Funding: \$2,000 (FWS)
\$2,800 (AID/ANE)

Description: FWS coordinated and produced a step-down plan for the conservation and enhancement of biological diversity in the Near East and Arid South Asia. The plan sets priorities and provides overall guidance for the FWS/AID small grants program in the area.

205

Agency: FWS

Collaborator(s): AID/ANE, State University of New York (Suny)-
Syracuse, Government of India (GOI)

Title: Environmental Education

Framework Code(s): B.1.II, B.2.II

Duration: 1986

Country(ies): India

Funding: \$366,800 (FWS, PL 480)
\$ 33,000 (AID/ANE)
\$200,000 (GOI)

Description: The College of Environmental Science and Forestry (SUNY/Syracuse), in collaboration with GOI, will produce a series of 24 educational videos on natural resources and environmental issues for use in classrooms and on India's public television network.

206

Agency: FWS

Collaborator(s):

Title: Refuge Management Workshop

Framework Code(s): A.1.III

Duration: annual

Country(ies): Latin American

Funding: \$45,000

Description: To train biologists from Latin America in the basic techniques of wildlife refuge management. Twelve Latin American biologists participate in a one month workshop.

Agency: FWS

Collaborator(s):

Title: Migratory Bird Workshop

Framework Code(s): A.2.III

Duration: annual

Country(ies): Latin American

Funding: \$20,000

Description: To train biologists from Latin America in various aspects of managing migratory bird populations. Twelve-fifteen Latin American biologists participate in a one-month workshop.

Agency: FWS

Collaborator(s):

Title: Effect of Habitat Fragmentation on Migratory Birds

Framework Code(s): A.3.IV

Duration: 1985 - 1986

Country(ies): Latin American

Funding: \$10,000

Description: To train Latin American biologists in the techniques of setting up a research project and studying migratory birds. FWS biologists work with Latin American biologists in their home countries to set up a habitat fragmentation study. The local biologists are later expected to follow-up on the project independently.

Agency: FWS

Collaborator(s):

Title: Regional Graduate Program in Wildlife Management-Costa Rica

Framework Code(s): A.2.II

Duration ongoing

Country(ies): Costa Rica and other Central American Countries

Funding: \$30,000

Description: To establish a regional program for Central America in wildlife management. The program will get underway this year. Funds will go toward student scholarships, setting up their thesis projects, and related items.

Agency: FWS

Collaborator(s):

Title: Regional Graduate Program in Wildlife Management-Brazil

Framework Code(s): A.2.III

Duration: Ongoing

Country(ies): Brazil and other South American countries

Funding: \$10,000

Description: To establish a regional program for Brazil in wildlife management. Cooperate with the WWF-US in the development of a wildlife management graduate program in a Brazilian University with which they have experience. The specific types of assistance to be provided have not yet been decided upon, but will probably include improving the teaching staff, library facilities, and providing scholarships. Just being initiated, but will be on-going.

Agency: FWS

Collaborator(s):

Title: Regional Graduate Program in Wildlife Management, Peru

Framework Code(s): A.2.III

Duration: ongoing

Country(ies): Peru and other South American Countries

Funding: \$10,000

Description: To establish a regional program for Western South America in wildlife management. Assist the university at La Molina in continuing and further developing the program they have already begun. This will include improving their teaching staff and their library facilities. Just being initiated, but will be on-going.

2/2

Agency: FWS

Collaborator(s):

Title: Determine Economic Effects of Wildlife Use in Central America.

Framework Code(s): A.2.IV

Duration: 1986 - 1987

Country(ies): Latin American

Funding: \$4,000

Description: To undertake a study to determine the uses of wildlife in Central America and evaluate these data from an economic standpoint. The study will tentatively be conducted by an M.S. graduate student, probably at UNA in Costa Rica.

22

Agency: FWS

Collaborator(s): International Council for Bird Preservation
(ICBP)

Title: Wildlife Newsletter

Framework Code(s): A.2.III

Duration: Ongoing

Country(ies): Western Hemisphere

Funding: \$6,000

Description: To support a newsletter on current wildlife projects and pending events in WHC countries. Partial support will probably go to the ICBP effort and another portion possibly to the Volante Migratorio.

214

Agency: FWS

Collaborator(s):

Title: Giant Grebe Conservation Project

Framework Code(s): A.2.II, A.2.IV

Duration: Ongoing

Country(ies): Guatemala

Funding: \$30,000

Description: To assist the people of Guatemala in the conservation of the endangered giant grebe and to train Guatemalan biologists in the techniques of endangered species research. Two graduate students will work on the project. One on the wild population and the other on captive rearing. Local agencies will coordinate an environmental education program, law enforcement and other activities.

715

Agency: FWS

Collaborator(s):

Title: Participation of Latin American Biologists in
International Workshops

Framework Code(s): A.2.III

Duration: Ongoing

Country(ies): Latin American

Funding: \$18,000

Description: To support the participation of Latin America
biologists in conferences, seminars and workshops relating to the
conservation of plants and wildlife. Support provided as
programs are identified and needs arise that are relevant
activities. Included support of 5 professionals to attend the
International Ornithological Congress in Canada.

Agency: FWS

Collaborator(s):

Title: Coordination of US/Mexico Joint Committee

Framework Code(s): A.2.I

Duration: Annual

Country(ies): Mexico

Funding: \$2,000

Description: To coordinate activities of mutual interest to the wildlife agencies of both countries. Joint projects are coordinated as are annual preparations for the Joint Committee Meeting.

Agency: FWS

Collaborator(s):

Title: Conservation Education Program on Siberian Crane

Framework Code(s): A.2.II

Duration: 1985 - 1989

Country(ies): India, Pakistan

Funding: \$20,000 PL-480

Description: FWS has sponsored education activities in Pakistan designed to increase awareness about the endangered status of the Siberian crane. These activities have resulted in increased management of crane hunting and capture for pets in Pakistan.

Agency: FWS

Collaborator(s):

Title: Siberian Crane Survey

Framework Code(s): A.3.IV

Duration: 1985 - 1989

Country(ies): Pakistan, India

Funding: \$20,000 PL-480

Description: Because of the extremely precipitous decline in the numbers of Siberian cranes, research on the distribution and habitat needs of this rare species is a high priority of the Pakistani and Indian Governments and will continue as management plans and captive breeding programs are instituted.

Agency: FWS

Collaborator(s):

Title: Wildlife Research Grants

Framework Code(s): A.3.IV

Duration: 1985 - 1989

Country(ies): India, Pakistan

Funding: \$30,000 PL-480

Description: The Service has initiated procedures to fund a grant program which would allow foreign currency to be used jointly by U.S. and Indian or Pakistani scientists working on endangered species research projects.

220

Agency: FWS

Collaborator(s):

Title: Wildlife Institute of India

Framework Code(s): A.2.III

Duration: 1985 - 1989

Country(ies): India

Funding: \$100,000 PL-480

Description: India has listed the training of professional wildlife managers as one of its most pressing needs. In response to this need, GOI has established a Wildlife Management Institute. The Institute will provide basic training in wildlife management and wildlife education/interpretation and serve as a base for research on species and habitats throughout India. GOI has requested FWS support for purchase of equipment, establishment of the curriculum, and assistance with visiting professors as well as all phases of the development, implementation and operation of the Institute and its programs.

Agency: FWS

Collaborator(s):

Title: Research on Endangered Species

Framework Code(s): A.3.IV

Duration: 1984 - 1989

Country(ies): India

Funding: \$31,800 PL-480

Description: Research on such endangered species as floricans, Jordan's Courser, etc., has been requested by the Indian Government. These species appear on the U.S. Endangered Species list and their conservation is a matter of mutual interest. The research will lead to management plans and possible captive breeding programs. This effort represents broadening of projects currently underway to investigate the ecology of certain Indian endangered species.

Agency: FWS

Collaborator(s):

Title: Technical Orientation Exchanges

Framework Code(s): B.1.III

Duration: 1977 - ongoing

Country(ies): India, Pakistan, Egypt

Funding: \$20,000

Description: FWS provided orientation exchanges for Indian scientists with training, information, and site visits designed to improve wildlife and plant management and research efforts by in-depth and state-of-the-art technology transfers.

Agency: FWS

Collaborator(s):

Title: Survey of Asian Elephant

Framework Code(s): A.3.IV

Duration: 1981 - 1987

Country(ies): India

Funding: \$31,000 PL-480

Description: FWS is sponsoring research by the Bombay Natural History Society under the auspices of India's Department of Forests and Wildlife into the number and distribution of India's remaining wild elephant population in order to better define management and recovery plan needs for the species.

Agency: FWS

Collaborator(s):

Title: Survey of the Great Indian Bustard

Framework Code(s): A.3.IV

Duration: 1981 - 1987

Country(ies): India

Funding: \$31,000

Description: FWS is sponsoring research by the Bombay Natural History Society under the auspices of India's Department of Forests, and Wildlife into the status and distribution of India's great bustard and florican populations. Baseline data will eventually result in international management and information/research exchanges for these species.

225-

Agency: FWS

Collaborator(s):

Title: Hydrobiologic Research Station

Framework Code(s): A.1.IV

Duration: 1980 - 1987

Country(ies): India

Funding: \$71,703 PL-480

Description: FWS is supporting research by the Bombay Natural History Society under the auspices of India's Department of Forests and Wildlife on wetlands at Keoladeo National Park in India. Efforts center around research into the basic ecology of the marsh, particularly as it affects the rich avifauna of the area. Research will lead to integrated management for the maintenance of the areas' biological diversity.

226

Agency: FWS

Collaborator(s):

Title: National Avifauna Survey

Framework Code(s): A.3.IV

Duration: 1980 - 1987

Country(ies): India

Funding: \$55,215 PL-480

Description: FWS has contracted with the Bombay Natural History Society under the auspices of India's Department of Forests and Wildlife to capture and band birds at several sites in India and compile other data on avifauna distribution in India. Results will provide the basis for development of an integrated migratory bird management program in India.

Agency: FWS

Collaborator(s):

Title: Monitor Lizzard Study

Framework Code(s): A.3.IV

Duration: 1985 - 1988

Country(ies): India, Pakistan

Funding: \$20,000 PL-480

Description: This study is investigating the status and habitat needs of the rare monitor lizard in order to determine management and possible captive breeding needs.

Agency: Treasury

Collaborator(s): A.I.D., State

Title: Strengthen Environmental Aspects of Multilateral
Development Bank Activities

Framework Code(s): B.2.I

Duration: FY 1983 to an undetermined time.

Country(ies): Global

Funding: Negligible

Description: The Treasury Department has been examining the environmental aspects of multilateral development bank activities. The World Bank offers training to officials of developing country governments through its Economic Development Institute; strengthened attention to natural resource management issues in Institute course offerings is an important U.S. objective. U.S. representatives have urged the banks to consult environmental and health ministers regularly on development activities and to extend the scope of consultation to non-governmental organizations in the conservation field and within local communities.

Agency: Treasury

Collaborator(s): A.I.D.. State

Title: Policy Views on Multilateral Development Bank Projects
For Cattle Production in the Savanna Areas of Sub-Saharan Africa

Framework Code(s): B.2.I

Duration: FY 1986 to FY 1987 or FY 1988

Country(ies): Sub-Saharan Africa

Funding: Negligible

Description: In view of the performance of past cattle production projects in several Sub-Saharan African countries, the United States Government has offered its views to the World Bank and to the African Development Bank regarding desirable principles to be adopted in preparing and implementing such projects. The principles stress consistency with existing socio-economic institutions with ecological constraints and with wildlife protection efforts. In addition, desirable governmental policies, economic goals, training activities, and monitoring and evaluation provisions are cited.

Agency: EPA/Office of Pesticide Programs

Collaborator(s):

Title: Efficacy and Environmental Safety of Proposed Grasshopper Control Chemicals in Subsahara Africa

Framework Code(s): B.2.III

Duration: 1986

Country(ies): Mali

Funding: \$3,640

Description: Grasshopper control in Subsahara Africa is important for protecting and enhancing agricultural and rangeland productivity. This project provided technical assistance that contributed to preserving ecological resources during grasshopper control operations. Advice was given on selection of chemicals with the minimum environmental impact (carbaryl and malathion) and on how to minimize environmental problems when they are used (e.g., avoid use of carbaryl on bees and avoid drift of malathion into aquatic sites).

NSF-1

Agency: NSF

Collaborator(s):

Title: Biological Control of Soil Charge Properties and Nutrient Retention in Variable Charge Soils of the Humid Tropics

Framework Code(s): B.1.IV

Duration: FY 1986 for 48 months

Country(ies): Costa Rica

Funding: \$225,000

Description: This project seeks to understand the interactions between soil properties and element cycles in variable-charge tropical soils. The capacity of these soils to hold exchangeable nutrients is relatively low and markedly influenced by soil organic matter and ph. These two factors are largely under biotic control. This study will provide critical basic information on this important class of soils necessary for sound management practices.

232

Agency: NSF

Collaborator(s):

Title: The Breeding Structure of Three Tropical Tree Species

Framework Code(s): A.3.IV

Duration: FY 1986 for 36 months

Country(ies): Costa Rica

Funding: \$70,000

Description: The breeding structure within populations of three tropical tree species will be examined using a genetic analysis known as paternity exclusion. Questions of interest include: (1) How far does pollen move within a stand of trees? What is the magnitude of pollen movement among populations? How does stand structure affect pollen movement? (2) Does pollination occur randomly among trees or is it a function of other variables? (3) How much self-fertilization occurs in natural populations? What proportion of the potential fathers are represented in the progeny of individual trees? (4) How much does success depend on size, number of flowers produced, flowering time or position in the stand? (5) Do seedlings with different parents survive and grow at different rates? Answers to the above questions can be used to estimate the number of individuals included in natural breeding units and the magnitude of gene movement among breeding units. It is important to understand the effective size of populations and the amount of gene exchange among populations if parks and refuges are to be effective in conserving species and their genetic variation.

233

Agency: NSF

Collaborator(s):

Title: Environmental Hardships for Rainforest Trees in Abandoned Amazon Pastures

Framework Code(s): A.3.IV

Duration: FY 1986 for 24 months

Country(ies): Brazil

Funding: \$82,000

Description: This research will examine the survival, growth and drought tolerance/avoidance capacity of rainforest trees in tree fall gaps and abandoned pastures in the tropics. The results are of intrinsic value to our overall understanding of tropical plant ecology.

Agency: NSF

Collaborator(s):

Title: Amazon Fires in an Ancient and Current-Day Context

Framework Code(s): B.1.IV

Duration: FY 1986 for less than 12 months

Country(ies): Brazil (upper Rio Negro, Guainia, Casiquiare, and Pasimoni River drainages)

Funding: \$16,000

Description: This study is directed toward clarifying the role of fires, historical and contemporary, in wet lowland tropical forests. An understanding of the role of fire in shaping present day vegetation patterns is necessary to effective conservation and management of this resource.

735

Agency: NSF

Collaborator(s):

Title: The Maintenance of Rare Tree Species in the Dipterocarp Rain Forests of Borneo.

Framework Code(s): A.3.IV

Duration: FY 1986 for 36 months

Country(ies): Borneo, Sarawak

Funding: \$60,000

Description: This project is examining the dynamics of an old world tropical Dipterocarp forest with emphasis on demography and maintenance of tree species. The research builds upon almost two decades of previous work and the results will be useful in developing comparisons with studies underway in African and American Tropics. Effective conservation and management strategies require comprehensive understanding of forest structure and dynamics.

236

Agency: NSF

Collaborator(s):

Title: Effects of Habitat Heterogeneity and Patch Characteristics on the Nonvolant Mammal Communities in a Fragmented Rainforest System.

Framework Code(s): A.3.IV

Duration: FY 1986 for 12 months

Country(ies): Australia

Funding: \$10,000

Description: This research is examining, in an integrative framework, the factors central to the effects of fragmentation. The study will collect data on mammal populations, vegetation, physiognomy, floristics, edaphic factors and microclimate of remnant habitat patches. Analyses will focus on determining which factors are controlled by patch area and the nature of the relationship in order to test various specific models (hypotheses) explaining insular mammal distributions.

Agency: NSF

Collaborator(s):

Title: Habitat Variation in the Demography and Life History of Tropical Trees

Framework Code(s): A.3.IV

Duration: FY 1986, for 12 months

Country(ies): Panama

Funding: \$50,000

Description: This project will complete the data analysis of tree life histories and demographies in mapped plots of mature, lowland tropical forests on Barro Colorado Island in Panama. These results are potentially important data because their interpretation may help bridge the gap between study of genetic and environmental attributes of individual trees, on the one hand, and that of ecosystem structure, on the other. The data also may be useful in developing strategies for forest reconstruction.

Agency: NSF

Collaborator(s):

Title: Gap-phase Regeneration in a Tropical Forest

Framework Code(s): A.3.IV

Duration: FY 1986 for 12 months

Country(ies): Panama

Funding: \$24,000

Description: This project is a continuation of a long-term project on gap-phase regeneration in the tropical forests of Panama. Tree-fall patches differ in sapling demography, growth and composition, depending on gap size and stage of regrowth; thus gap regeneration is central to control of forest heterogeneity, species distribution and abundance. The immediate goal in this effort is to extend the data record through 11 years with another inventory. The long-range goal, with future inventories, is to understand tree replacement processes and community organization. Aside from contributing insight to fundamental forest processes, gap-phase replacement is a natural analog to sustained yield forestry systems.

Agency: NSF

Collaborator(s):

Title: Sustainable Agroecosystems in Amazonia

Framework Code(s): C.1.IV

Duration: FY 1986 for 12 months

Country(ies): Brazil

Funding: \$4,000

Description: The most effective practitioners of agroforestry in the Amazon basin are Japanese farmers who immigrated to Amazonia in the 1920's and 30's. This research will seek an explanation as to why these Japanese farming systems are successful. The results of this study contribute to a body of knowledge by which this system of farming can be used as a model for sustained yield agriculture elsewhere.

240

Agency: NSF

Collaborator(s):

Title: Ecological Factors that Predict the Behavior of Rhizobium
in Tropical Soils

Framework Code(s): C.1.IV

Duration: FY 1986 for 36 months

Country(ies): Hawaii

Funding: \$25,000

Description: This project is examining the ecology of Rhizobia in a variety of tropical soils for two purposes: (1) to understand in a predictive way how edaphic and microclimatic factors influence establishment and success of N-fixing bacteria, and (2) to determine the fate of alien micro-organisms when introduced to tropical ecosystems harboring multitudes of different indigenous bacteria. These results are expected to contribute to strategies by which a sustainable tropical agriculture can be attained.

Agency: NSF

Collaborator(s):

Title: The Role of Fine Roots and Mycorrhizae in the Cycling of P in Brazilian Tropical Forests and Agroecosystems

Framework Code(s): C.2.IV

Duration: FY 1986, for 24 months

Country(ies): Brazil

Funding: \$187,000

Description: The dynamics of phosphorus cycling in tropical soils is virtually unresearched and unknown. Few problems in soil ecology today approach the significance of those involving phosphorus. Failure to establish sustainable agroecosystems in tropical soils is often linked to inadequate information about the phosphorus cycle in the tropics. This research will yield information on critical processes necessary to development of suitable management practices for tropical soils.

Agency: NSF

Collaborator(s):

Title: Flora of the Venezuelan Guayana

Framework Code(s): A.3.IV

Duration: FY 1986 for 24 months

Country(ies): Venezuela

Funding: \$95,000

Description: The Guayana region of Venezuela has a unique flora, with one-half of its estimated 10,000 species found nowhere else. Despite hundreds of publications describing the rich flora, no one work has synthesized the total number of species found in this region. This project will bring together all the information on the Guayana flora. The project eventually will be a world-wide cooperative effort and a major contribution to our collective knowledge of the tropical flora.

Agency: NSF

Collaborator(s):

Title: Tropical Forest Inventory in Northern Borneo

Framework Code(s): A.3.IV

Duration: FY 1986 for 24 months

Country(ies): Borneo

Funding: \$103,000

Description: The flora of Borneo is rich in endemic species. It is especially important to quickly document and secure these specimens since these tropical forest are subject to significant development pressures. Many of the specimens of this collection are one-of-a-kind samples that will ultimately broaden the systematic perception of several plant genera. The project is addressing identification, preparation and curation of the tropical forest flora of Borneo.

244

Agency: OPIC

Collaborator(s): Private Company

Title: Waste Recycling Project: Brazilian Oil Refining

Framework Code(s): B.2.V

Duration: 1986

Country(ies): Brazil

Funding: Insurance for profit venture

Description: A Brazilian oil refinery has been dumping its residues in a nearby wetland since it commenced operation in the 1950's. This dumping has resulted in groundwater contamination, fouling of beaches, and ocean pollution. A U.S. engineering company has provided this refinery with the ability to process these residues, thus eliminating the source of pollution. In addition, the company will reclaim the disposal sites, processing the wastes into usable fuel.

245

Agency: OPIC

Collaborator(s):

Title: Closed-cycle Aquaculture Operation

Framework Code(s): A.2.V, C.4.V

Duration: 1986

Country(ies): Guatemala

Funding: Insurance for profit venture.

Description: An intensive shrimp farming operation was established to produce export-quality shrimp. By establishing a closed-cycle aquaculture operation, the investors are reducing the fishing pressures on wild stocks. The company will establish its grow-out ponds well away from the mangroves which will be left intact.

Peace Corps

For a detailed accounting of Peace Corps Volunteer activities related to biological diversity, please refer to their report: United States Peace Corps Activities Related to Biological Diversity: Fiscal Year 1986.

Agency: Smithsonian Institution

Collaborator(s): National Academy of Sciences

Title: National Forum on BioDiversity

Framework Code(s): A.1.II, A.2.II, A.3.II, B.1.II, B.2.II, C.1.II, C.2.II, D.II

Duration: September 1986

Country(ies): Aimed toward all developing countries of the world, but especially the countries of the New World tropics.

Funding: \$34,000 (Smithsonian budget; NAS budget not included).

Description: The Forum was designed to provide the public with the learned views of distinguished scientists and scholars on the rapid destruction of the Earth's natural habitats and the serious consequences of losing many species of plants and animals forever. It consisted of a week-long program of lectures, panel discussions, films, and a national teleconference. The subject was addressed in a systematic way, covering diagnosis, analysis, and prognosis. Practical alternatives to destruction were considered. About a thousand persons from all walks of life attended the five days of program.

Agency: Smithsonian Institution

Collaborator(s): U.S. MAB

Title: Smithsonian/MAB Biological Diversity Program

Framework Code(s): A.1.I, A.1.II, A.1.III, A.1.IV, A.1.V, A.3.I, A.3.II, A.3.IV, A.3.V, D.I, D.II, D.III, D.IV, D.V

Duration: 1986 ongoing

Country(ies): Brazil, Venezuela, Colombia, Ecuador, Peru, Bolivia, Panama, Costa Rica, China, India, United States (Puerto Rico, Virgin Islands)

Funding: \$39,200

Description: The goals are (1) to create a standardized computer protocol for recording biotic inventories that can be taught easily to biologists and protected-area managers of developing countries; (2) to train biologists, conservationists, and protected-area managers of developing tropical countries in the use of the computer protocol and in the collection and curation of documentary voucher specimens. Primary emphasis is being placed on MAB Biosphere Reserves.

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Agency: USIA

Collaborator(s):

Title: Hubert H. Humphrey Program

Framework Code(s): A.2.II, B.1.II, B.2.II, C.2.II

Duration: Ongoing program; individual appointments are for one year.

Country(ies): Developing Countries

Funding: \$168,000

Description: Brings mid-career professionals from developing countries to the U.S. for one year of study and practical, work-related experience. Some 150 Fellowships were awarded in FY 86 to candidates professionally engaged in the fields of agriculture, health, planning and resource management, and public administration. Six appointments during FY 1986 were in fields related to biological diversity and environmental and natural resource management (e.g., agroforestry, forestry, environmental planning, natural resources, wildlife conservation).

Agency: USIA

Collaborator(s):

Title: ISEP

Framework Code(s): B.1.II, C.1.II

Duration: ongoing

Country(ies): various

Funding: NA

Description: ISEP - To assist with the exchange of students (mostly undergraduate) in the upcoming year, half from institutions abroad. FY 1986 exchanges included one student in marine biology from Tanzania and two students in chemistry/agronomy, one each from Tanzania and Nigeria.

Agency: USIA

Collaborator(s): IBM

Title: FSSC Grant - International Leadership Seminar:
"International Business and Trade"

Framework Code(s): B.1.III

Duration: 1986

Country(ies): 15 of 20 students from DCs

Funding: NA ?

Description: FSSC - Provides enrichment and service programs to foreign students in three week-long leadership workshops on specific academic and professional topics and ongoing information, education and assistance services. This seminar dealt with economic development, including natural resources development.

Agency: USIA

Collaborator(s):

Title: FSSC Grant - International Leadership Workshop: the
Politics of U.S. Energy Policy

Framework Code(s): B.2.III

Duration: 1986

Country(ies): 13 of 20 students from DCs

Funding: \$12,500

Description: Environmental and developmental issues related to
U.S. and international energy policies. (See USIA-3).

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Agency: USIA

Collaborator(s):

Title: Latin America Scholarship Program of American Universities

Framework: Code(s): A.3.II

Duration: 1986

Country(ies): Peru, Bolivia

Funding: \$64,000 for 4 students

Description: Latin American Scholarship Program of American Universities (LASPAU)-Placement in English language and orientation programs, and in U.S. academic institutions, and monitors grantees' progress. Four grantees during FY 1986 were in such fields as botany, mammalian taxonomy, ecology and plant conservation.

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Agency: USIA

Collaborator(s):

Title: Office of International Visitors Multi-Regional Project:
Environmental Protection in the U.S.

Framework Code(s): B.1.III

Duration: 1986

Country(ies): NA

FY 1986 Funding: \$55,144

Description: Provides professional development programs in all fields for foreign leaders or emerging leaders who come to the U.S. at the invitation of our embassies for 30-day observations and consultations in a group setting in their fields.

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Agency: USIA

Collaborator(s): various

Title: Fulbright Program

Framework Code(s): A.1.II, A.3.II, B.1.II, B.2.II, C.1.II, C.2.II, C.3.II, C.4.II, D.II

Duration: Ongoing program, individual appointments are generally for one year.

Country(ies): various

Funding: A=\$73,470 B=\$483,888 C=\$265,722 D=\$50,286

Description: Exchanges of U.S. and foreign students and scholars for education and research in various fields. During FY 1986 there were 5 exchanges in the areas directly related to the conservation of biological diversity. Another 32 exchanges were in the areas of natural resources and environmental management. Twenty-one exchanges were in the fields of agriculture (7), forestry (8), range/livestock (3), fisheries (3) and genetic resources (4).

APPENDIX C1

SUGGESTED CRITERIA FOR CONSIDERATION IN EVALUATING BIOLOGICAL DIVERSITY PROJECTS (Not ranked in order of priority)

Administrative Criteria:

1. Does the project meet the requirements of Section 119. (see attached description of legislative requirements and suggested projects).
2. Level of mission or Embassy concurrence or willingness to cooperate.
3. Level of host country and/or NGO, PVO interest and willingness to cooperate.
4. Is there an existing mechanism (institutional relationship) for initiating conservation programs and will the project or activity tie in with existing programs?
5. Whether the project maximizes the amount of money that actually gets into the field. (i.e. by maximizing matching fundsthrough indigenous NGO's and U.S. counterparts and by minimizing overhead costs).
6. Will the activity relate effectively to the economic development objectives of the country and to an increase in public understanding?
7. Financial and institutional sustainability.

Ecological Criteria

1. Degree of human threat to species and habitat richness, and the intrinsic vulnerability of the species in the area (i.e. particularly fragile ecosystems.)
2. Level of species endemism and habitat richness within the country or target area.
3. The importance of the habitat for maintaining species diversity in other regions (i.e. seasonal habitats serving as breeding sites for migratory species).

4. Importance of natural ecosystems to the human needs of a given country.
5. Sustainability of the project.
6. Support should be distributed among a variety of ecosystems in different geographic areas.

APPENDIX C2

BIOLOGICAL DIVERSITY LEGISLATIVE REQUIREMENTS AND A.I.D. PROJECT CATEGORIES

Legislative requirements

Section 119b of the 1983 Amendments to the Foreign Assistance Act authorized AID to take the following actions to conserve biological diversity:

1. assist countries in protecting and maintaining wildlife habitats and in developing sound wildlife management and plant conservation programs.
2. establish and maintain wildlife sanctuaries, reserves and parks.
3. enact and enforce anti-poaching measures.
4. identify, study and catalog animal and plant species.

Categories of Biological Diversity Activities and Projects

The following activities and projects meet the objectives of Section 119. (projects are not listed in order of priority).

1) "Assist countries in protecting and maintaining wildlife habitats and in developing sound wildlife management and plant conservation programs."

Support for training and education efforts which improve the capacity of recipient countries to prevent loss of biological diversity. (Section 119(g) (4)).

Support for efforts to identify and survey ecosystems worthy of protection. (Section 119(g) (6)).

Ensure the environmental profiles sponsored by the agency include information needed for conservation of biological diversity. (Section 119(g) (9)).

Development of public awareness and education programs in support of efforts to conserve biological diversity.

Administrative costs of developing national authorities, laws, policies and programs for the sustainable utilization and conservation of wild plant and animal resources.

Education and training of host country personnel in programs directly related to biological diversity conservation (taxonomy, botany, ecology, zoology, fisheries, forestry, coastal resources management, biology, etc.)

National Conservation Strategies which include plans for a system of conservation areas and wild plant and animal management programs.

Policy Development/Dialogue (e.g. increased national commitments to conservation through increases in budget/personnel resources, demonstrate the economic values of protected areas, assist with host country participation in international conservation conventions, etc.)

Policy studies to identify better and more effective methods to preserve biological diversity in both current and future efforts. This includes methods to monitor and evaluate current AID biological diversity conservation strategies and the effect of AID activities.

Development of land uses that maintain natural vegetation and protect biological diversity. (e.g. Watershed, Range of Natural Forest Management Project.)

Environmental profiles: (Provided that they determine the current and projected status, distribution and level of protection of species and ecosystems.)

2) "Establish and maintain wildlife sanctuaries, reserves and parks;"

Encourage long-term agreements to protect ecosystems and other wildlife habitats, and provide assistance necessary for the establishment of such protected areas (subject to obtaining necessary appropriations) (Section 119(g) (5)).

Administrative or training costs related to host country accession to, or participation in, the following international conservation conventions or programs:

World Heritage Convention
Wetlands Convention
Western Hemisphere Convention
Biosphere Reserve Programs.

Development of conservation area management plans.

Development of necessary management infrastructure (Buildings, trails, water supplies, waste management systems, maintenance and research facilities, equipment, etc.)

Education and training of parks and wildlife management staff.

Inventories and assessments of conservation area resources.

Research in management needs for maintenance and utilization of conservation areas.

Rural development projects integrating conservation area maintenance and utilization with meeting local human and economic needs.

Surveys, inventories and assessments related to conservation area selection, siting and boundary demarcation.

Land acquisition costs.

Establish buffer zones around protected areas.

3) "Enact and enforce anti-poaching measures".

Administrative and training costs related to host country accession to, or participation in, CITES, including establishment or enhancement of National Scientific Authorities.

Support development of 1) buffer zones for alternative sources of the products normally obtained in protected areas and 2) sustained use and management of trade species from protected areas.

Train and equip wildlife and wildlands management staff.

Development of public awareness and education programs in support of efforts to conserve biological diversity. (i.e. need for control of poaching, sustainable alternatives to poaching).

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4) "Identify, study and catalog animal and plant species".

Establish and support Conservation Data Centers.

Development or enhancement of host-country research and development facilities related to the identification, study and cataloging of animal and plant species. (e.g. provision of essential research equipment, publication of new surveys and information on flora and fauna).

Support for expanded host-country personnel participation in professional organizations, programs and meetings.

Support for information and technology transfer to host country research and development professionals and institutions.

Support for host-country or collaborative taxonomic, and ecological research on economically promising species.

Genetic surveys and in situ and ex situ conservation of both underutilized and exploited species.

Education and training of host country personnel in research on biological diversity conservation. (taxonomy, botany, ecology, zoology, fisheries, forestry, coastal resources management, biology, etc.)