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**PROGRESS IN CONSERVING BIOLOGICAL DIVERSITY
IN DEVELOPING COUNTRIES
FY 1985**

**A REPORT TO CONGRESS ON IMPLEMENTATION
OF SECTION 119 OF THE FOREIGN ASSISTANCE ACT**

by

**The Agency for International Development
on Behalf of the
Interagency Task Force on Biological Diversity**

February 1986

Progress in Conserving Biological Diversity
in Developing Countries: FY 1985, the Annual
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THE ADMINISTRATOR

MAR 7 1986

TO THE CONGRESS OF THE UNITED STATES:

The Annual Report on Progress in Conserving Biological Diversity in Developing Countries summarizes the events of the 1985 fiscal year in accordance with the requirements of Section 119(d) of the Foreign Assistance Act of 1961, as amended. It represents the cooperative efforts of the member agencies of the Interagency Task Force on Biological Diversity (ITF), with the coordination of my staff.

The ITF, chaired by our Senior Assistant Administrator for Science and Technology, Dr. N. C. Brady, was established by Congress 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 in biological diversity conservation and a comprehensive set of recommendations for action to enhance the conservation of biological diversity in developing countries.

This report summarizes those initiatives, within the Agency for International Development (A.I.D.) and the other member agencies of the ITF, that have been taken during Fiscal Year 1985.

The conservation of biological diversity is a complex issue of cross-sectoral importance which 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. We intend to continue

the IIF and to expand its membership among other federal agencies to help further coordinate and integrate international development assistance and conservation activities. But it must be recognized that the success of our own initiatives depends critically on the awareness and commitment of the developing countries themselves to the need for conserving the earth's living resources.

A handwritten signature in black ink, appearing to read "M. Peter McPherson". The signature is written in a cursive style with a long, sweeping underline.

M. Peter McPherson

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SUMMARY

This report discusses initiatives taken by U.S. Government agencies during 1985 that are responsive to the need for conserving biological diversity in developing countries. The report provides a brief background on the issue, including the relevant legislation, and brief descriptions of specific projects and activities. Projects and activities are discussed by agency, and the countries in which the project or activity is taking place are noted. Appendix A provides a summary listing of projects and activities, their anticipated duration and funding levels.

Appendix A also classifies projects within seven major areas of action (policy dialogue, public awareness and education, institutions and training, research and inventories, resource management, population pressures and non-governmental organization support).

The report reveals substantial new activities by the U.S. Government on the biological diversity issue on many fronts. It also demonstrates how various traditional activities can play a role in conserving biological diversity and the need for continued efforts at coordinating and integrating the various agencies' programs to achieve maximum effectiveness.

1. BACKGROUND

1.1 The Issue

Biological diversity is a term that refers to all living things and the ecological systems they form. It encompasses the number of species of microbes, plants and animals, the genetic variation within each species and the variety and complexity of habitats and ecosystems. Biological diversity has emerged as an issue of importance for two reasons. First, we are dependent on living things for all our food and for much of our shelter, clothing, medicines and basic industrial raw materials. In addition, other life-forms are vital components of many natural processes, such as nutrient and water cycling, which are essential to maintaining a habitable world for mankind. Second, there is widespread concern among biologists that the diversity of life on earth could be dramatically reduced over the next 50 years with perhaps 5-20 percent of the currently estimated 10 million species becoming extinct by the middle of the 21st Century. It is clear that, without being alarmist, the potential effect of such a reduction, even in the lower range of the scale, would be most serious for the diversity of the earth's living resources.

1.2 The U.S. Strategy Conference on Biological Diversity

In recognition of this concern, the Agency for International Development (A.I.D.) in collaboration with the Departments of State, Agriculture, Commerce and Interior, the Council on Environmental Quality, the Smithsonian Institution, the National Science Foundation, and the U.S. Man and the Biosphere Program sponsored a three day U.S. Strategy Conference on Biological Diversity in Washington, D.C. in 1981.¹ The meeting drew on expertise from many disciplines both within government and from academia and the private sector. The principal conclusion of the Strategy Conference was that an interagency task force on biological diversity should be established to review current programs and develop comprehensive long-term U.S. goals and strategies to maintain biological diversity, and recommend integrated national and international programs to carry out the strategies.

¹Proceedings of the U.S. Strategy Conference on Biological Diversity, November 16-18, 1981. Department of State Publication 9262, International Organization and Conference Series 300, Bureau of International Organization Affairs, Department of State, Washington, D.C. 1982. 120 p.

1.3 The International Environmental Protection Act of 1983

Congress responded to this recommendation by amending the Foreign Assistance Act in 1983 to incorporate a new section (Section 119) dealing with biological diversity and endangered species as a component of U.S. foreign assistance programs. Among its other provisions, Section 119 directs the Administrator of A.I.D., in consultation with the heads of other appropriate government agencies, to develop a United States strategy, including specific policies and programs, to protect and conserve biological diversity in developing countries.

1.4 The U.S. Strategy on the Conservation of Biological Diversity in Developing Countries

In response to Section 119, A.I.D. took the lead in establishing the Interagency Task Force on Biological Diversity (ITF) in 1984. The ITF was charged with reviewing the case for conserving biological diversity; surveying current U.S. Government agencies' activities and programs affecting biological diversity in developing countries; and formulating a comprehensive international biological diversity conservation strategy with specific recommendations for action. The first result of the ITF effort, the U.S. Strategy on the Conservation of Biological Diversity: An Interagency Task Force Report to Congress² (hereafter, the Strategy), was presented to Congress in February 1985.

During the course of its work a strong consensus emerged within the Task Force that valuable and productive living resources are generally deteriorating in developing countries. Because biological diversity is both a measure of economic potential as well as genetic wealth, such deterioration, where it is occurring, jeopardizes the very basis of sustained economic development. Consequently, the major conclusion of the Task Force is that provisions for conserving biological diversity must be incorporated into development planning and a concern for biological diversity should be an integral part of all development programs.

The Strategy identifies 67 recommendations for action by the U.S. Government, other public and private institutions and organizations to enhance the conservation of biological diversity

²U.S. Strategy on the Conservation of Biological Diversity: An Interagency Task Force Report to Congress. Agency for International Development, Washington, D.C. 1985. 54 p.

in developing countries. These recommendations are grouped into seven major strategy elements:

I. Continue an ongoing policy dialogue within federal agencies and with developing countries on international biological diversity, and help countries to establish and implement national policies for conserving, managing, and developing genetic resources.

II. Through education programs in developing countries increase public awareness of the need to conserve biological diversity.

III. Strengthen developing-country conservation institutions and increase conservation training.

IV. Support research related to biological diversity conservation and inventories of species and ecosystems.

V. Promote balanced resource management and the designation and maintenance of protected areas.

VI. Encourage developing countries to recognize the effects of and deal with human population pressures on natural resources

VII. Increase coordination among development assistance agencies and support nongovernmental conservation organizations (NGOs).

The Strategy has been forwarded to U.S.A.I.D. Missions and copies have also been made available to other institutions, organizations, and the public.

2. U.S. GOVERNMENT INITIATIVES ON BIOLOGICAL DIVERSITY CONSERVATION DURING FISCAL YEAR 1985

A.I.D.'s development assistance programs to Less-Developed Countries (LDCs) provide the logical major link for enhancing U.S. Government assistance on conserving biological diversity overseas. Other federal agencies contribute to this effort either through their own programs or in collaboration with A.I.D.

One of the principal charges given to the Interagency Task Force on Biological Diversity is to maintain a current survey of U.S. Government Agencies' activities and programs on biological diversity conservation in developing countries. The Strategy includes a detailed account of U.S. Government programs and activities as of February 1985 ("Chapter II. Current U.S.

Government Activities in Biological Diversity Conservation"). In addition, the joint Department of State/Department of Interior report - Conserving International Wildlife Resources: the United States Response,³ also mandated by the International Environmental Protection Act of 1983 (PL 98-164) and published in December 1984, provides an additional comprehensive review of federal programs and activities in international wildlife conservation ("Chapter III. Current Federal Involvement in International Wildlife Resource Conservation"). It is not necessary here to repeat these extensive summaries, most of which describe continuing efforts. This report focuses on those U.S. Government (U.S.G.) initiatives responsive to biological diversity conservation overseas that have occurred since publication of the above reports.

Before describing specific projects and activities, an explanation of the scope of initiatives reported here is necessary. As the Strategy makes clear, biological diversity is a complex issue involving numerous biological and other disciplines (microbiology to wildlife ecology, genetics to resource economics) and of cross-sectoral importance (agriculture to medicine and industry). The Strategy also makes clear that both the pressures on biological diversity and the solutions to its conservation are complex and span a wide range of possible projects and activities. Nearly every facet of sound, sustainable environmental and natural resources management may be viewed as contributing to the maintenance of biological diversity, either directly or indirectly.

Agricultural and forestry projects present a case in point. The Strategy recognizes the critical importance of enhancing agriculture, forest, and range production on land already devoted to these purposes to alleviate pressures for further land conversion with potential negative impacts on indigenous plant and animal species. The Strategy further notes the crucial importance of efforts to identify, collect, assess, and maintain germplasm both for current crops or animal breeds and for currently underutilized species of potential importance to development and human welfare. Such efforts already represent a significant part of development assistance programs and will continue as a major focus irrespective of the biological diversity issue.

³Conserving International Wildlife Resources: the United States Response: A Report to the Congress by the Secretary of State and the Secretary of the Interior. Department of State, Washington, D.C. 1984. 49 p.

In recognition of this complexity, A.I.D., in collaboration with the International Institute for Environment and Development (IIED), is formulating a classification system of how various current A.I.D. programs relate to biological diversity conservation, both directly and indirectly. This classification system is being applied to those projects active during FY 1985 and reported by the Central and Regional Bureaus and A.I.D. Missions as having a biological diversity component. This effort is still underway.

For the purposes of this report, only those projects and activities of A.I.D. and other U.S.C. agencies that were initiated in FY 1985 or the first quarter of FY 1986 and that clearly relate to one or more of the seven major elements of the Strategy are reported. Moreover, the listing of projects and activities contained here is not exhaustive because not all U.S.C. agencies are currently participating in the Interagency Task Force. Steps are being taken to include activities sponsored by other relevant agencies such as Treasury, the Peace Corps, and the Overseas Private Investment Corporation in future reports. Nevertheless, the following initiatives should be viewed as the principal U.S.C. initiatives responsive to the need for conserving biological diversity that have occurred since publication of the Strategy. Initiatives are briefly described by agency with interagency initiatives noted. Appendix A provides a summary listing of initiatives by the seven Strategy elements (e.g., policy dialogue, education and public awareness, etc.) and shows, where applicable, the duration of the activity in years and funding levels.

2.1 A.I.D.

2.1.1 Central and Regional Bureaus

Draft A.I.D. Action Plan on Conserving Biological Diversity in Developing Countries. The Strategy identifies A.I.D. involvement for 33 of the 67 action recommendations spanning all seven major strategy elements. Current A.I.D. programs and activities are directly relevant to many of these recommendations. Furthermore, A.I.D. programs and activities often affect biological diversity directly or indirectly. Consequently, effective, efficient implementation of those Strategy recommendations involving A.I.D. requires careful integration of biological diversity considerations into ongoing and planned A.I.D. programs and activities.

To facilitate Strategy implementation, A.I.D./Washington has reviewed the various action recommendations involving the Agency, in light of current programs and resources, and developed

a Draft A.I.D. Action Plan on Conserving Biological Diversity in Developing Countries (hereafter, the Draft Action Plan). A copy of the Draft Action Plan is included as Appendix B.

For each of the Strategy recommendations involving A.I.D., specific actions for implementation are identified. Further, each action is assigned to one of two priority categories: near-term or long-term. Near-term actions are those that can be accomplished or initiated within the next two fiscal years (FY 87-FY 88) with available resources. Long-term priority is assigned to those actions that will require new or redirected resources.

Because of the range of issues related to biological diversity conservation and the different levels of awareness and commitment within the countries in which A.I.D. operates, each Mission has to assess its own situation and host country needs and priorities in an effort at conserving biological diversity. Consequently, the Administrator has asked U.S.A.I.D. Missions worldwide to review and comment on the Draft Action Plan by April 15, 1986. In particular, they have been asked to identify the highest priority action items for their programs and to identify the resource constraints they face in responding to high priority actions, as well as the types of technical assistance they may require from A.I.D./Washington.

In addition to A.I.D. Mission review, the Draft Action Plan has been presented to the member agencies of the Interagency Task Force on Biological Diversity for their consideration, especially in coordinating various agencies' efforts on biological diversity. The Draft Action Plan will also be discussed with the Congress and with relevant nongovernmental organizations and individuals with expertise on this issue to gain their perspective.

Based on Mission review identifying country priorities and constraints, and other input, A.I.D./Washington will prepare a final action plan for the Agency by July 15, 1986.

Advisor on Biological Diversity. Through extension of a reimbursable contract with the U.S. Fish and Wildlife Service (FWS), A.I.D. has obtained the services of a biological diversity specialist to serve as an Advisor to the Agency on implementation of the Strategy. To date the Advisor has assisted the Agency in development and review of the Draft Action Plan; provided guidance to our Missions and Bureaus and to member agencies of the Interagency Task Force on identifying biological diversity activities for this report; and provided general technical assistance to the Agency on Strategy implementation. During the remainder of this contract, the Advisor will be working with the

Central and Regional Bureaus, Missions and other U.S.G. agencies on development of specific biological diversity activities, projects and components of projects.

Biological Diversity Strategy for Asia. During FY 1985, A.I.D.'s former Bureau for Asia obtained the assistance of an American Association for the Advancement of Science (AAAS) Fellow to develop a strategy for biological diversity conservation in that region. A report, Biological Diversity in the Asia Region: Issues and Options for Action, provides a valuable initial framework of needs and priorities on this issue for the Asia region. As part of this effort a one-day workshop was arranged, through the Ecological Society of America, on biological diversity resources in Asia to help prioritize problems and management needs.

Biological Diversity Small Grants Project for the Near East. Through a contract with the FWS's Office of International Affairs, the newly reorganized Bureau for Asia and the Near East (ANE) has established a project on biological diversity conservation in the Near East. This project will provide A.I.D. funds to complement excess foreign currencies held by FWS in certain Near East countries to maximize U.S.G. resources for conservation work in this region. The project will also coordinate U.S.G. resources with those of relevant international and indigenous NGOs to further extend and enhance resources for biological diversity conservation in the Near East. An initial two-day workshop, arranged by ANE and FWS and hosted by the International Institute for Environment and Development (IIED) was held January 8 and 9 to discuss collaboration among various U.S.G. agencies and NGOs in the Near East. Priority problems and opportunities and the key resources needed to address them were identified.

Wildlands and Human Needs. Through a matching grant from A.I.D.'s Bureau for Food and Voluntary Assistance (FVA) to the World Wildlife Fund-U.S. (WWF-US), a series of specific field subprojects is being initiated in Latin American and African countries that focus on integrating management of natural resources and the conservation of biological diversity with human development needs in and adjacent to wildland areas. The project will eventually involve some 15 to 17 developing countries.

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.

The economic significance of many of the world's tropical coastal ecosystems and the growing evidence of widespread degradation of these biologically rich but fragile resources combine to make this a high priority project.

During FY 1985, a cooperative agreement was initiated with the University of Rhode Island and pilot project activities were initiated in Ecuador and Sri Lanka. Specific in-country activities completed in FY 1985 include the negotiation of joint project agreements with host country counterpart institutions, identification and recruitment of country project managers, and the completion of initial annual workplans for each respective country.

Activities scheduled for FY 1986 include: providing assistance in development of the Sri Lanka National Coastal Zone Management Plan; sponsoring workshops, one on the management of critical coastal ecosystems in Sri Lanka; sponsoring short-term training in the management of coastal parks and protected areas; and providing assistance to an international workshop concerned with developing management strategies for the recently created Galapagos Archipelago Marine Biological Reserve.

Support to the Fisheries Committee of the Eastern and Central Atlantic. The Fisheries Committee of the Eastern and Central Atlantic (CECAF) is an intergovernmental organization with representation from 21 North and West African coastal nations (Morocco to Zaire) as well as 10 nonregional and 6 observer nations. The Committee was established by the United Nation's Food and Agricultural Organization (FAO) in 1965 to improve and enhance the multispecies, multinational, marine fishery of the region. The CECAF project provides for an interdisciplinary team of marine resource technical specialists to provide services to the committee on fisheries statistics, resource monitoring, strengthening participating country management capabilities, training, research, aquaculture development and development of individual country programs. United Nations Development Program (UNDP) funding for this activity ended in mid-1985. A.I.D.'s Bureau for Africa (AFR) will provide three years of interim support to continue CECAF until FAO can organize UNDP support on a continuing basis.

Country Environmental Profiles. Essential to the development of sustainable natural resource management in the context of development assistance programs, are in-country studies of available information on the status and trends of natural resources, their relationship to development, and specific recommendations for needed actions to address problems. A.I.D.'s series of Country Environmental Profiles (CEPs) is designed to meet this need. During FY 1985 CEPs were completed

or initiated by U.S.A.I.D. Missions in five countries (El Salvador, Guatemala, Haiti, Jamaica, Paraguay) in Latin America and the Caribbean and on a regional basis for Central America.

Fisheries Stock Assessment Cooperative Research Support Project. Through S&T's Office of Agriculture (S&T/AGR), A.I.D. will be providing support to this project to develop methods for use by LDC fisheries' managers in the assessment of natural fisheries stocks, with subsequent application to the management of fishery resources on a sustained yield basis.

National Conservation Strategies. In 1980, the International Union for the Conservation of Nature and Natural Resources (IUCN) published the World Conservation Strategy (WCS). The WCS set forth the case for viewing conservation as an integral part of sustainable development and presented an international program for action to achieve fuller integration of conservation and development. One recommendation of the WCS was the development of national conservation strategies (NCSs). A.I.D. recognizes the importance of this effort and, in FY 1985, began support of an NCS in Nepal through the IUCN. A.I.D. also is continuing to assist the preparation of NCSs in Sri Lanka, the Philippines, and Zimbabwe.

Forestry/Fuelwood Research and Development Project. The goal of this project, being administered by S&T/FENR, is to meet basic needs of developing countries for fuelwood and other tree products; for improved land, water, and human resource management; and for increased employment and income. The purpose is to enhance forestry/fuelwood research and research capabilities through: a) improved formulation, planning, and management of forestry/fuelwood and agroforestry research; b) support and development of networks of scientists and institutions in less developed countries focused on the assessment, improvement, and management of fuelwood/multipurpose tree species; and c) enabling LDCs to address their critical forestry/fuelwood needs through better use of forestry and agriculture related research information.

Involved in this effort is the collection and conservation of germplasm of a large number of tropical tree species in two regional seed centers (Thailand and the Philippines) supported, in part, by the project. The intent is to preserve the germplasm of native species in tropical Asia, Africa, and Latin America for use in the improvement of fuelwood/multipurpose tree species over an extended period of time. The project will initially concentrate on the preservation of those species which are endangered by industrial logging, agricultural expansion and other causes. Part of the strategy for preservation of endangered species is their incorporation into established agroforestry systems within the three regions.

Tropical Forests Initiatives. Along with tropical coral reefs, humid tropical forests represent the greatest repository of biological diversity on earth. Consequently, meaningful efforts to conserve biological diversity must focus strongly on solving the continuing, if not accelerating, processes of tropical deforestation and conversion. The international donor and development assistance community is increasingly focusing attention on these issues. A recent report of the FAO-sponsored Committee on Forest Development in the Tropics and a tropical forest action plan developed by the World Resources Institute/World Bank/UNDP have provided a framework for future donor and assistance agency initiatives in this area. A.I.D. participated in a recent meeting at The Hague focusing on donor coordination in conducting forestry sector evaluations within tropical countries and other possible activities which reflect the FAO-WRI recommendations. A.I.D. will continue to be an active participant in this dialogue as well as in the revitalization of the U.S.G. Interagency Task Force on Tropical Forests co-sponsored with the Department of State.

2.1.2 U.S.A.I.D. Missions and Regional Programs

Belize. U.S.A.I.D./Belize, in conjunction with A.I.D.'s Science Advisor's Office, is cooperating in an inventory and genetic assessment of Pink Conch. The data gathered may serve for future commercial breeding of this species and government activities on reef and fisheries protection. The Mission in Belize also participated in a one-day workshop, funded and conducted by the Rare Animal Relief Effort, Inc. (RARE), on environmentally sound sustainable development.

Burma. U.S.A.I.D./Rangoon's Agricultural Research and Development Project is providing training and technical assistance for research on new and improved crop varieties and breeding materials.

Burundi. U.S.A.I.D./Bujumbura is providing support for Peace Corps Volunteer Wildlife Biologists working on inventories and studies of rare and endangered species in the Bururi and Romonge forests. These inventories and studies are being conducted in conjunction with ongoing or planned agroforestry projects aimed at preserving these valuable remnant forests through development of alternative sources of fuelwood, posts and other forest products for the use of local populations.

Cameroon. The Mission in Yaounde is sponsoring a project with emphasis on research on maize, rice, sorghum, millet and other cereals production with extension activities to transfer research results to farmers.

The Caribbean. A.I.D.'s Regional Development Office for the Caribbean (RDOC), in conjunction with a rural electrification project in Dominica, is providing assistance in upgrading Dominica's National Park Service. RDOC also provided a grant to the Caribbean Conservation Association for policy and institutional development. In addition, support was provided for training seminars on environmental impact assessment for personnel from various governments of the region. RDOC is also studying the technical and economic feasibility of King Crab mariculture in the region as well as developing an overall fisheries sector assessment for the Eastern Caribbean. The environmental assessment of a road project on St. Kitts in conjunction with a land-use management plan is also being supported by RDOC.

Central America. A.I.D.'s Regional Office for Central American Programs (ROCAP) is supporting a program on the utilization of fast growing tree species for restoring degraded areas and to promote the diversification and stability of agro-ecosystems. A regional agricultural higher education program is also being supported.

Costa Rica. U.S.A.I.D./San Jose has concurred in the Government of Costa Rica (GOCR) using PL-480 Title I generated local currency, which will assist in the establishment of a protected natural area corridor between the La Selva Research Station and Los Carrillo National Park. This new protected area will, in conjunction with the existing research station and national park, provide protection for a full cross-section of natural habitats from the coastal lowlands to the top of the coastal mountain range and will be a significant contribution to the systematic conservation of Costa Rica's indigenous biological diversity.

Through another PL-480 Title I project, the Mission has concurred with the GOCR in using local currency to provide support for strengthening and consolidating the management and utilization of the Cano Negro Wildlife Refuge. The program includes assistance in refuge management, facilities development for research, and training and planning assistance.

The Mission is also supporting a regional agricultural higher education project which will educate agricultural professionals on the efficient use of the humid tropics. The focus of the project is the proper management of lowland humid tropic ecosystems using those domesticated species of plants and animals that are agriculturally productive in this environment.

Dominican Republic. U.S.A.I.D./Santo Domingo has concurred with the Government of the Dominican Republic in using

local currency to support a Smithsonian Institution project to promote the utilization of an indigenous species of salt water crab for local and export markets.

East and Southern Africa. A.I.D.'s Regional Economic Development Service Office for East and Southern Africa (REDSO/ESA) is supporting a project to identify microbes found in African termites which can be used in the controlled production of ethanol and methane for energy production from raw biomass. Such biogeneration systems might have wide applicability in LDCs to reduce petroleum imports while making more efficient use of currently underutilized waste biomass. This could help alleviate increasing pressures on dwindling fuelwood supplies and lessen habitat destruction.

Another REDSO/ESA project is supporting the use of remote sensing data for plant, rangeland, forest, and water resource management, land-use planning, health and environmental protection, monitoring of marine resources, and disaster warning and relief.

Ecuador. U.S.A.I.D./Quito and the Bureau for Latin America and the Caribbean (LAC) are jointly providing a grant of \$150,000 to the Darwin Research Station, located on the Galapagos Islands of Ecuador, to fund scientific research and operating costs. The grant will be matched by an additional \$150,000 from the Government of Ecuador's (GOE) PL-480 local currencies as a contribution to the Research Station's endowment fund. These grants will assist the Center to serve as a major research facility for basic biological, ecological, and evolutionary studies of both marine and terrestrial living resources. The Nature Conservancy's International Program is currently building, through its Galapagos Campaign, an endowment for the long-term support of the Center. A.I.D. believes this is an outstanding example of both international and public/private sector collaboration on an important biological diversity research initiative.

The Mission in Quito has also provided financial assistance to the recently created Environment Division of the GOE for a study of environmental and natural resources legislation.

Egypt. U.S.A.I.D./Cairo has initiated a national agricultural research project to generate and transfer improved agricultural technologies with an emphasis on plant breeding/selection activities. In addition, assistance in establishing a national integrated pest management system will be provided as one part of this project.

Guinea-Bissau. U.S.A.I.D./Bissau is initiating a food crop protection project which will emphasize the use of varietal resistance, cultural and mechanical techniques and biological control measures as alternatives to reduce pesticide application for the protection of agricultural production in Guinea-Bissau.

Haiti. U.S.A.I.D./Port-au-Prince is supporting a project for the mariculture of the Queen Conch in its natural habitat in the Ft. Liberte region of Haiti. In addition, a Country Environmental Profile of Haiti was completed in FY 85.

Honduras. U.S.A.I.D./Tegucigalpa cooperated in the provision of a matching grant to the Honduran Ecology Association to continue the Association's activities in environmental education and to strengthen institutional capabilities in program management and development.

Jamaica. Although U.S.A.I.D./Kingston reports no new Mission initiatives on biological diversity during FY 85, they do advise that, as a result of the ongoing preparation of the Jamaica Country Environmental Profile, the Ministry of Agriculture has now appointed an Interim Environmental Advisory Committee. This illustrates the importance of CEPs in developing a policy dialogue and national policies on natural resources which may include biological diversity.

Jordan. U.S.A.I.D./Amman initiated the Highland Agricultural Development Project to provide research, extension and other inputs for improving rainfed crop production in the Jordan highlands. The Mission also sponsored a short-term technical training visit to the U.S. for the Director of the Royal Society for the Conservation of Nature (RSCN). The RSCN is responsible for the protection of wild species of plants and animals in Jordan. Training was provided in parks and reserve management.

Lesotho. U.S.A.I.D./Maseru is supporting an agricultural production and institutional support project with components on conservation education; rangeland studies; land-use assessments and planning; and forestry and agroforestry research and management.

Mexico. U.S.A.I.D./Mexico City is supporting development of the U.S. Conservation Foundation's State of the Environment Report for Mexico. The report will help determine the actual state of the environment in Mexico; evaluate the adequacy of available data for designing, implementing, and monitoring environmental programs, and identify policy options for planning purposes. U.S.A.I.D./Mexico City has also provided a matching grant for a program of forest management and

reforestation, soil conservation, and research and planning for the conservation and use of pine-oyamel forests. In addition, the Mission is supporting a forestry project that includes training activities in nursery establishment and management and forest germplasm collection, handling and storage.

Nepal. U.S.A.I.D./Kathmandu is supporting the establishment and development of the Institute of Renewable Natural Resources for research, training and educational programs. An agricultural research and production project assists the Government of Nepal in development of an agricultural research program that includes the collection, testing and archiving of germplasm for new or improved crops. In addition, the Mission is cooperating with a centrally funded (S&T/FENR, Environmental Planning and Management Program) study of the fire ecology of grassland communities in Chitwan National Park and the interrelationships with adjoining human settlements. The Mission is also cooperating with the development of a National Conservation Strategy centrally funded by S&T/FENR.

Pakistan. U.S.A.I.D./Islamabad has three agricultural initiatives which incorporate conservation components. The food security management project provides training, technical assistance, commodities, and operating costs for research, technology transfer and pesticide safety studies. Two other projects in agricultural research and technology involve comparative evaluation of various sources of crop germplasm over a range of environmental conditions. Education, technical assistance, training, institutional development, research, inventory, planning, and management activities are included in these projects.

Oman. The Omani-American Joint Commission for Economic and Technical Cooperation is providing technical assistance for preparation of a National Marine Resources Survey and Atlas of Coastal Resources. U.S.A.I.D. assistance will help to integrate environmental and natural resources management concerns into the planning and development of the coastal zone and adjacent marine environment of the Sultanate of Oman. Associated with this activity is the revision of a national sea turtle management plan for the Sultanate of Oman.

Panama. U.S.A.I.D./Panama City has a varied and active program in natural resource management which includes several ongoing projects in habitat protection (for watershed management) and natural resources education through local Private Voluntary Organizations (PVOs). In addition, the Mission has initiated a dialogue with the Government of Panama on the need for improving the legal and administrative framework for natural resources conservation, revisions to national forestry laws, the

establishment of a national environmental policy, and continued work on canal watershed management.

Rwanda. U.S.A.I.D./Kigali is providing technical assistance and training for an environmental profile of Northern Rwanda which will include elements of natural resources inventory, education, policy development, and environmental planning and management.

Somalia. U.S.A.I.D./Mogadishu is developing a cooperative program to expand PVO development programs and enhance the capacity of indigenous PVOs, and local groups to participate in development programs. This will be accomplished through operational program grants and support, training, monitoring, and evaluation activities related to PVO programs. No grants have yet been made, but certain PVOs have expressed interest in wildlife conservation, nature reserve promotion, reforestation, and environmental education activities. In addition, U.S.A.I.D./Mogadishu recently developed a research proposal for a Fulbright Fellow in Biological Diversity to work with the ongoing Juba Development Analytical Study to examine the potential effects of the proposed Bardeere dam on biological diversity resources.

South Pacific. The Mission in Suva is providing support to the South Pacific Commission for research, training, planning and management activities which follow-up on previous grants for skipjack tuna and tuna-billfish resource assessments.

Thailand. During FY 1985, U.S.A.I.D./Bangkok and S&T/FENR supported a coastal resources management training of trainers workshop for curriculum development at the teachers college level and supported participation of a resource economist in another coastal resources management in-service training course. The Mission also supported an environmental assessment for a major regional industrial development program located in the eastern seaboard coastal zone, and the preparation of a Natural Resources Profile by the Thai Development Research Institute. In addition, A.I.D. funding was used to support the publication of a Thailand Marine Fisheries Assessment and translation and publication of the National Environment Board's Annual Environmental Report. Support was also provided for an assessment of issues and opportunities for foreign donor cooperation in the management of Thailand's parklands and wildlife and a small grant was provided to one of Thailand's newest environmental NGOs for an environmental awareness television campaign. An assessment of issues and priorities for pest and pesticide management in Thailand was also prepared. The Mission has contracted a long-term Natural Resources Advisor to provide technical support and coordination in managing this

growing program portfolio in environmental protection and natural resources management.

Zimbabwe. U.S.A.I.D./Harare provided partial funding of a workshop to develop a National Conservation Strategy for Zimbabwe. In addition, the Mission is supporting the development of mobile extension training units in each of Zimbabwe's eight provinces. These units will work to educate the rural population about the effects of environmental degradation and how to manage more effectively the country's natural resources.

2.2 Department of State

In FY 1985, the Department of State intensified its role in international conservation of biological diversity. At the meeting of the Governing Council of the United Nations Environment Program (UNEP) in Nairobi in May, the U.S. delegation stressed the need for a coherent and aggressive international strategy and plan of action on biological diversity, with the IUCN playing a lead role. The delegation also urged that biological diversity be selected as the theme for a future State of the Environment Report in 1986.

As previously noted, the Secretary of State and the Secretary of the Interior submitted in December 1984 a report, Conserving International Wildlife Resources: the United States Response. The report pointed out that the United States Government, as well as the private sector, plays a lead role in a very broad range of efforts, through a wide variety of mechanisms. State and other concerned agencies are now working toward implementation of the 60 recommendations and options suggested in the report, which include: improving authority, policy and organization for U.S.G. international wildlife conservation activities; enhancing collection, exchange, and use of information and research; improving interagency working relationships; and more effective assistance to conservation abroad, especially in developing awareness, knowledge, and capabilities in third world countries. Many of these recommendations mirror or reinforce those of the Strategy. Consequently, State and A.I.D. will work closely with the ITF at coordinating these efforts.

State also worked toward improving the coordination and effectiveness of international wildlife law enforcement operations of the U.S. Fish and Wildlife Service, U.S. Customs, and the Departments of Justice and Agriculture, intended to curtail illegal trafficking in wildlife and wildlife by-products. In support of these activities, the Department undertook to raise the awareness of U.S. Embassies to the issues and growing importance of international wildlife and biological

diversity conservation in foreign affairs. This is an ongoing, continuous process which includes providing missions abroad with a regular flow of information on pertinent laws and the interests of involved agencies and nongovernmental organizations.

Together with Interior, and in consultation with concerned state government and nongovernmental interests, the State Department evaluated the desirability of the United States becoming a Party to the Convention on Wetlands of International Importance Especially as Waterfowl Habitat. A positive decision was reached, and the Convention was signed in September 1985. It will be submitted to the Senate for advice and consent to the United States becoming a Party. U.S. adherence to the Wetlands Convention should stimulate more nations, particularly in the Western Hemisphere, to join and provide an effective vehicle for United States assistance to the conservation efforts in Latin America and the Caribbean, where more than half of our bird species migrate.

In 1985, the Department of State and A.I.D. actively joined the Department of the Treasury in reviewing Multilateral Development Bank (MBD) projects for their environmental implications, including their impact on biological diversity. The effort seeks to identify and mitigate environmentally harmful aspects of projects and, more generally, to influence bank management to assure that policies effectively promote integration of environmental/natural resource conservation issues into the project development process.

The U.S. Man and the Biosphere Program (MAB) is administered in the State Department, Bureau of Oceans and International Environmental and Scientific Affairs, Office of Food and Natural Resources (OES/FNR). 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. In 1985, NOAA provided a financial contribution to U.S. MAB for the first time, joining State, NASA, the National Park Service, and the U.S. Forest Service. Negotiations with the Smithsonian Institution began in 1985 to set up a U.S. MAB project directly related to biological diversity; the Smithsonian officially joined the MAB effort in December. Major research and other initiatives related to biological diversity funded in FY 1985 include research on island ecosystems and coastal erosion problems in the Caribbean; and tropical rain and dry forest research and information syntheses, including a symposium held in August 1985 to present the results of 22 MAB tropical forest projects funded at over \$1.5 million since 1978.

The U.S. Tropical Forest Task Force, co-chaired by State and the U.S. Forest Service, was revitalized in late 1985. It will concentrate on two activities in the near term:

1) development of a U.S.G. strategy for influencing and supporting the new FAO Action Plan for Tropical Forestry, which annexes the World Resources Institute's tropical forest action plan; and

2) preparation of a revised and updated U.S. policy and strategy report on tropical forests following up on the 1980 version.⁴

The State Department continued its active support of Department of Interior (FWS and National Park Service) programs to implement the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), as well as a wide variety of bilateral agreements with many countries including notably our neighbors Canada and Mexico, as well as Egypt, India, and Pakistan through P.L.-480-generated counterpart funds.

2.3 Department of Agriculture

In addition to the continuation of the various programs of the Department of Agriculture related to biological diversity conservation described in the Strategy, the Department initiated, during FY 1985, 14 individual small studies in the areas of forestry research (5), crop agriculture research (5) and wild plant research and management (4) that relate to biological diversity conservation.

Under the U.S.-India Science and Technology Initiative the genetic structure of selected native and introduced woody species are being studied. Such information is essential in the maintenance as well as restoration of natural populations.

The principal responsibility for international exchange of plant genetic resources resides in the U.S. Department of Agriculture. This program is a broadly based program involving

⁴The World's Tropical Forests: A Policy, Strategy, and Program for the United States. Report to the President by a U.S. Interagency Task Force on Tropical Forests. Department of State Publication 9117. International Organization and Conference Series 145. Department of State, Washington, D.C. 1980. 53 p.

most countries of the world. During the last year alone exchanges took place with over 40 countries. In the course of a number of these exchanges the U.S. was able to restore native germplasm in support of local agricultural development activities.

2.4 Department of Interior

2.4.1 National Park Service

During FY 1985, the National Park Service (NPS), through the Office of International Park Affairs, conducted and participated in a variety of activities responsive to the biological diversity issue. Prominent among these was a series of five workshops on park and protected area policy, planning, management, and socioeconomic impacts, conducted in collaboration with the Government of Sri Lanka and funded by U.S.A.I.D./Colombo. Other training efforts included one workshop on integrated management of coastal zones held at Mahidol University in Thailand (in collaboration with A.I.D./W and U.S.A.I.D./Bangkok). In further collaborative training initiatives with A.I.D., NPS will hold a regional training of trainers workshop on planning and management of development in the humid tropics this February in Costa Rica and 11 regional training of trainers workshops in the integrated management of arid and semi-arid lands in Africa in 1986 (8 in Zimbabwe, and 1 each in Lesotho and Zambia).

Technical assistance was provided by NPS to the Government of Morocco in identifying potential protected area sites and enhancing management of current sites; to the Government of Saudi Arabia for coastal resource management assistance; and to A.I.D./AFR in developing coastal resource management guidance for West African countries. NPS also provided technical assistance in identifying and categorizing recreational and protected areas resources in St. Lucia in collaboration with the Organization of American States (OAS). Further technical assistance was provided on park maintenance and management in Barbados, Dominica, and Grenada with partial support from A.I.D. In addition, NPS developed planning guidelines for the Association of Southeast Asian Nations' (ASEAN) Heritage Parks, and published The State of the World's Parks.⁵ Finally, in response to the need for integrating

⁵Machlis, G. E. and Tischnell, D. L. 1985. The State of the World's Parks: An International Assessment for Resource Management, Policy and Research. Westview Press, Boulder, Co. 131 p.

environmental education with the public school system in Thailand, NPS will support the development of a Thai language coastal ecology textbook in 1986 with the support of A.I.D./Washington.

In 1986, a new Western Hemisphere initiative will begin which will include support for the development of a Latin America Action Plan for protected areas in conjunction with the IUCN Commission on National Parks and Protected Areas; technical support at the Bariloche regional training center in Costa Rica and the Center for Research and Training in Tropical Agriculture's (CATIE) Mobile Protected Area Management Seminar; a protection plan for Rio Abiseo National Park in Peru; production of a handbook on protected area management in Latin America in Spanish; and support and coordination of a protected areas managers' network in South America.

2.4.2 U.S. Fish and Wildlife Service.

During FY 85 FWS, through its Office of International Affairs, was active in several initiatives related to biological diversity conservation. FWS supported the translation of the Wildlife Management Techniques Manual into Spanish and is assisting in the establishment of a professional wildlife management journal for Latin America. FWS also supported efforts to mark Purple Martins in Brazil as part of a public education campaign to demonstrate how martins and other migratory birds are a shared resource between Brazil and the U.S. In another educational effort, FWS is sponsoring filming of cranes in Pakistan as part of a conservation campaign. Workshops on the propagation of endangered native plants in Mexico and wildlife research techniques in Pakistan were also supported by FWS. Two separate but related programs on assessing the ecology and distribution of important vertebrate species were initiated in Pakistan and India. FWS is also providing technical training of an Egyptian wildlife official. These initiatives are in addition to the previously mentioned provision of an Advisor on Biological Diversity to A.I.D. and management of A.I.D./ANE's small grants project on biological diversity in the Near East.

2.5 Department of Commerce.

The Department of Commerce took several initiatives related to biological diversity during FY 1985. The National Oceanic and Atmospheric Administration (NOAA) undertook a marine environmental assessment to assist fisheries development and conservation in the Philippines. In addition, NOAA's Sanctuary Programs Division, in collaboration with the U.S. MAB program, the University of Michigan, and WWF-US, is sponsoring an International Marine Protected Area Management Seminar. The

seminar will provide government officials, managers and scientists both classroom and field work experience in all major facets of marine protected areas management from legal and economic aspects to research needs, resource management, and public use considerations.

The National Marine Fisheries Service (NMFS) took action to invoke various amendments (Pelly, Packwood-Magnuson) regarding the allocation of U.S. fisheries quotas to foreign fleets from countries identified as being in violation of International Whaling Commission (IWC) quotas. In 1985 the Soviet Union was determined to have exceeded its share of the IWC quota for Minke whales. Subsequently, fisheries allocations for the Soviet fleet in U.S. waters were reduced. Although this action may not have any direct bearing on conserving biological diversity in developing countries, it is an important indication of U.S. policy to strongly encourage the wise and sustainable use of an international biological resource.

2.6 Council on Environmental Quality

The Fifteenth Annual Report of the Council on Environmental Quality, Environmental Quality 1984, contains a history of American involvement in international wildlife conservation efforts, including efforts by private individuals and organizations, as well as formal involvement by the U.S.G. The report includes a section on "U.S. Activities Related to Conservation of Genetic Diversity," including both federal agency activities and private sector initiatives which have an important impact on international wildlife conservation and biological diversity. The report serves as useful background in understanding the development of the biological diversity issue and both the public and private U.S. response.

2.7 U.S. Information Agency

As part of the International Environmental Protection Act of 1983 (PL 98-164), five percent of the Pell amendment increases in exchange programs were mandated for environmental exchanges. The Strategy recommended that the U.S. Information Agency's (USIA) Fulbright Scholar, Student, and Humphrey programs should make every effort to include experts in natural resource management in these mandated increases. In FY 1984 USIA more than met this recommendation. They have done so again in FY 1985 and, for FY 1986, have allocated five academic Fulbright grants to be devoted to natural resources management.

2.8 Smithsonian Institution

In addition to its many long-standing programs and ongoing projects in research related to living resources, the

Smithsonian Institution has initiated an additional 12 research projects related to various facets of biological diversity during FY 85. These projects cover a wide spectrum of species, habitats and subject areas, ranging from studies of tropical forest diversity to a new collaborative program with the U.S. Man and the Biosphere Program on biological diversity.

2.9 National Science Foundation

National Science Foundation (NSF) sponsored research encompasses the bulk of U.S. Government supported basic research at colleges and universities in such key biological diversity related disciplines as ecology, systematics, and evolution. NSF supports numerous projects in these and related disciplines. Of special importance to the biological diversity issue are several projects described here, some continuing, which focus on plant systematics and ethnobotany. Although some of these projects do not represent new initiatives during FY 1985, they are described here because of their particular relevance to the biological diversity issue.

Projeto Flora Amazonica. This is a U.S./Brazilian binational inventory program on Brazilian Amazonia which began in 1977 and has continued under the joint funding of the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) and the National Science Foundation. The twenty expeditions between 1977 and 1983 have collected over 45,000 specimens of all major plant groups from the Amazonian region. Thirty-nine botanists from eighteen institutions in the United States have taken part. In 1985 the project was extended for a further three years and ten expeditions. Collecting will concentrate on areas which are poorly collected or in danger of deforestation. The project is a collaborative effort of the U.S. botanical community coordinated through the New York Botanical Garden, and the resulting specimens are distributed to major U.S. herbaria.

Phytolacca dodecandra (Endod). This species produces a series of chemicals in the berries that have been successfully used in Africa to control schistosomiasis. Several African nations are now growing test plantings of endod and use it on a self-help basis for the control of schistosomiasis. This project will examine P. dodecandra from natural populations, establish test plots and collect germplasm from throughout its range. An initial conference will be held in Swaziland to clearly communicate and coordinate the field collections and implementation of the test plots. The results from this study will find immediate application since the African nations are ready to begin plantations of endod selections, yet the variability of the germplasm is unknown.

Ethnobotany of the Amazonia Jivaro. One of the richest pharmacopeias still extant in the New World is that developed by the Jivaro Indians of the upper Amazon Basin. As plants are skillfully employed in their medical practices, a comprehensive field study of their folk medicines could provide a basis for the development of new uses in modern medicine and also serve as a repository for future generations of Jivaro who may need to revive disappearing folk medical practices in order to survive.

Endemism Speciation and Evolution of the Fauna of Lake Tanganyika, Africa. This project will investigate the evolutionary origins of the fauna of Lake Tanganyika. Over 300 species of animals occur only in Lake Tanganyika and appear to have evolved there. This lake and its unusual animal life have figured prominently in many of the controversies in evolutionary biology during the past 20 years, particularly with regard to the question of how new species develop. This project will provide important new field evidence for the portion of evolutionary biology dealing with the origin of new species.

The Second Conference on Conservation Biology. As the biological diversity of this planet is increasingly threatened by man's alteration of land and water resources, conservationists are seeking new approaches to understand and mitigate this trend. One new direction which is proving to be extremely promising is the field of conservation biology. Integrating information from ecology, population biology, biogeography, genetics, and other fields, conservation biology is providing managers of threatened resources with essential information on rarity, extinction, ecosystem processes, and minimum viable population sizes.

The Second Conference on Conservation biology allowed leading scientists working in the field of conservation biology to share their latest thoughts and results with each other and with resource managers and other members of the conservation community. Panels of resource managers from government and non-government organization evaluated the implications of this information and commented on future research needs. The proceedings of the Conference is in press.

3. FUTURE INITIATIVES

3.1 A.I.D.

A.I.D.'s Draft Action Plan provides a blueprint for future Agency initiatives on biological diversity, especially in

terms of a general integration of biological diversity conservation components into current and future development assistance programs. However, the following specific projects and activities are currently under development or consideration by A.I.D. and may be implemented before finalization of the Action Plan. Due to the current uncertainties of federal budget levels for FY 1986 and beyond, these initiatives should be viewed as tentative.

Biological Diversity Management. This project, within S&T/FENR, will provide technical assistance to the Central and Regional Bureaus and the Missions on implementation of the Strategy. This assistance will focus on integrating biological diversity conservation into ongoing and planned A.I.D. projects; review of A.I.D.'s environmental procedures guidance; technical assistance on development of specific biological diversity projects or project components, coordination of the Interagency Task Force and liaison with other donor agencies. A series of small demonstration case studies on the use of biological diversity data in development project planning and environmental review and a prototype training course for A.I.D. personnel are also anticipated.

Science Advisor's Program in Science and Technology Cooperation. The Program in Science and Technology Cooperation (PSTC), initiated in 1981, is a Congressionally-mandated activity of A.I.D.. It is an important instrument of A.I.D.'s policy to establish priorities for future programs in research and technology transfer. Specifically, it seeks to stimulate new and innovative research on problems that confront developing countries. The Program is administered by the Office of the Science Advisor (AID/SCI), and is currently implemented by a system of competitive research grants which undergo scientific peer review.

The Science Advisor's Office is currently working on the development of a module of the PSTC program to focus on biological diversity research needs as resources become available.

Bangladesh. U.S.A.I.D./Dhaka is planning a homestead agroforestry research and extension project which will employ a variety of activities such as research, extension, and support to enhance homestead production of fast growing multipurpose trees for fuelwood and fodder. Research carried out under this project may identify agroforestry practices which can stabilize the severely encroached sal forests of North Central Bangladesh and the badly degraded forests of Chittagong. This may help preserve some pockets of relatively undisturbed forests.

Belize. The Mission in Belize may provide support to an iguana domestication project for enhanced food resource utilization of indigenous species in the tropics.

Central America. A.I.D./ROCAP is planning a fragile lands protection and management project which would assist in protecting critical wildland areas in the region. Projects for enhancing the use of integrated pest management programs and the development of a regional agricultural research network that would include basic germplasm work are also being planned.

Kenya. The Mission in Nairobi is planning a national agricultural research project which will include a component on the collection, preservation and research on indigenous and exotic germplasm of economic importance.

Madagascar. As a result of a recent conservation symposium in Madagascar, U.S.A.I.D./Antananarivo, in collaboration with AFR, is examining the possibility of a country-wide forest resources inventory. Part of this potential initiative may include an assessment of the current state and management needs of Madagascar's designated forest and wildlife reserves.

Mali. U.S.A.I.D./Bamako is developing a Mali Forestry Support Project which, among other activities, will include work on natural forest management and related environmental resources activities.

Panama. The Natural Resources Management Project is intended to be a multifaceted program incorporating the restoration of degraded areas; establishment and maintenance of protection programs for high priority parks and reserves; establishment of a forest conservation program; development of natural resources conservation policies; creation of an environmental impact assessment capability; and support for indigenous conservation activities. The program will incorporate elements of policy dialogue, institution building and training, research and inventories, and resource management.

Peru. U.S.A.I.D./Lima is considering further work on research and initiatives related to the economic use of tropical plants.

Sri Lanka. In addition to Mission collaboration on the centrally funded Coastal Resources Management Project previously described and the development of a National Conservation Strategy, U.S.A.I.D./Colombo is formulating an agricultural planning and analysis project which will focus on land-use capability assessments and their use in national agricultural planning and management.

Tunisia. U.S.A.I.D./Tunis is developing a farm conservation and development project to provide conservation oriented extension education and technology transfer for the management of natural grazing systems in currently degraded hilly areas.

Zimbabwe. U.S.A.I.D./Harare is considering technical support for a national land-use planning initiative by the Government of Zimbabwe.

3.2 Other U.S.G. Agencies

Coordination of U.S.G. Efforts. At a January 10 meeting of the Interagency Task Force, representatives of the member agencies agreed that the ITF will continue as a means of further coordinating overall U.S.G. implementation of the Strategy. Meetings of both the technical and policy level representatives will be held in FY 1986 with an emphasis on identifying interagency initiatives for consideration in future budget cycles. In addition, several agencies (Department of the Treasury, Peace Corps, U.S. Information Agency, and the Overseas Private Investment Corporation) will be invited to join the ITF to further broaden and integrate the U.S.G. response to the biological diversity issue.

APPENDIX A

SUMMARY OF U.S. GOVERNMENT INITIATIVES ON BIOLOGICAL DIVERSITY CONSERVATION DURING FY 1985 AND THE FIRST QUARTER OF FY 1986

Following is a summary of new initiatives contributing to biological diversity conservation by U.S. Government agencies that are discussed in the text of this report. Initiatives are grouped into the seven major elements of the U.S. Strategy on the Conservation of Biological Diversity: An Interagency Task Report to Congress, e.g., policy dialogue, education and public awareness, institutions and training, research and inventories, research management, human population pressures, organizational coordination and NGO support. Projects or activities that touch upon several of these major elements are listed in a separate category: multi-faceted. Under each major element, initiatives are listed by lead or cooperating agency(ies), described by a brief title and, where applicable, show life of the project and funding.

The funding figures listed in the following table come from a variety of sources and may not be directly comparable from one agency to another. In some cases, the figures given are estimates of the cost of biological diversity components of much larger projects. In other cases, the figures may only represent part of the cost of a project or activity supported from sources other than the U.S.G. agency listed (e.g. other donor support is involved). Some agencies did not report duration and cost figures for relatively new activities. In still other cases, activities are considered part of current program and staff capabilities of the relevant agency.

To deal with this diversity of situations and still give some sense of U.S.G. expenditures for initiatives related to biological diversity conservation, the following system is employed. Funding figures without notation represent the actual or projected annual cost to the listed agency(ies) of the project/activity for the fiscal years indicated. Parenthetical notes below the funding figures are used to indicate pass through monies, (as with A.I.D. funds used to support NPS activities under contract between the agencies) or special sources of funding (e.g. PL-480 local currencies).

For those situations where annual funding figures are not given or where other information is necessary to interpret the

figures, the following notations are used:

Est. = Estimated cost of project or activity per annum.

OP = Overall project cost per annum, with biological diversity as a component at an unspecified level.

N/A = Not available from agency at this time.

I. Policy Dialogue

<u>Agency(ies)/Country(ies)</u>	<u>Project/Activity</u>	<u>Fiscal Year(s)</u>	<u>Funding¹</u>
<u>A.I.D.-FWS/</u> various	FWS Advisor to A.I.D. on Biological Diversity.	85-86	112,738 (A.I.D.)
_____/Asia Region	Biological Diversity Strategy for Asia.	85	N/A
_____/Caribbean Region	Grant to Caribbean Conservation Association.	85	9,000
_____/El Salvador, Haiti, Jamaica, Paraguay, Central America	Country Environmental Profiles.	Completed, underway or initiated in 85-86	750,000 Est. (overall)
_____/Nepal, Philip- pines, Sri Lanka, Zimbabwe	National Conservation Strategies.	Underway, initiated or being developed in 85-86	N/A
_____/Mexico	Conservation Foundation's State of the Environment Report to Mexico.	85/85	97,500
_____/Thailand	Natural Resources Profile.	85	80,000
_____/Thailand	Annual Environmental Report.	85	8,000
_____/Thailand	Assessment of Donor Coordination in Parks/Wildlife Management.	85	50,000
_____/Zimbabwe	National Conservation Strategy Workshop.	85	20,000

¹See explanation of funding information and notation on p. A2.

II. Education and Public Awareness

<u>Agency(ies)/Country(ies)</u>	<u>Project/Activity</u>	<u>Fiscal Year(s)</u>	<u>Funding¹</u>
A.I.D./Central America Region	Regional Agricultural Higher Education Project (CATIE).	85-95	700,000 OP (plus local currency)
_____/Zimbabwe	Mobile Extension Education Course on Natural Resources Management.	85-86	650,000 OP
FWS/Brazil	Purple Martin Campaign- Brazil.	85	2,600
_____/Pakistan	Conservation Film on Cranes in Pakistan.	85	17,500 (rupees)
_____/Thailand	Coastal Zone Ecology Public School Textbook.	86	5,000 (A.I.D.)
<u>U.S. Information Agency</u>	Fullbright Scholars in Environmental Disciplines.	Begin 85	N/A

III. Institutions and Training

A.I.D./Caribbean Region	Regional Environmental Impact Assessment Training.	85	10,000
_____/Ecuador	Grant to the Darwin Research Station.	86	150,000

¹See explanation of funding information and notation on p. A2.

III. Institutions and Training (continued)

<u>Agency(ies)/Country(ies)</u>	<u>Project/Activity</u>	<u>Fiscal Year(s)</u>	<u>Funding¹</u>
<u>A. I. D./Jordan</u>	Short-term Technical Training for Official of the Royal Society for the Conservation of Nature.	85	N/A
_____/Thailand	Coastal Resources Management Workshop.	85	10,000
_____/Thailand	Coastal Resources Management Workshop (provision of economic consultant).	85	24,950
<u>FWS/Mexico</u>	Workshop on Propagation of Endangered Native Plants in Mexico.	85	5,000
_____/Pakistan	Workshop on Wildlife Research Techniques (Pakistan).	85	35,000 (rupees)
_____/Egypt	Training of Egyptian Wildlife Official.	85/86	12,000 (pounds)
<u>NPS/Sri Lanka</u>	Parks and Protected Areas Workshops (5).	85	500,000 (A. I. D.)
_____/Thailand	Integrated Coastal Zone Management Workshops.	85	10,000 (A. I. D.)
_____/Lesotho, Malawi, Zambia, Zimbabwe	Integrated Arid and Semi-arid Lands Management Workshops (11).	85	20,000 (A. I. D.)

¹See explanation of funding information and notation on p. A2.

III. Institutions and Training (continued)

<u>Agency(ies)/Country(ies)</u>	<u>Project/Activity</u>	<u>Fiscal Year(s)</u>	<u>Funding¹</u>
<u>NPS/</u> various	Planning and Management of Development in the Humid Tropics Workshop (Costa Rica).	86	120,000 (A.I.D.)
<u>NOAA/</u> various	International Marine Protected Area Management Seminar.	86	Self supporting through registration fee

IV. Research and Inventories

<u>A.I.D./</u> various	Fisheries Stock Assessment Collaborative Research Support Program.	85-89	800,000
_____/various	Forestry/Fuelwood Research and Development.	85-94	1,770,000 OP
_____/Belize	Inventory and Genetic Assessment of Pink Conch in Belize.	85-86	92,278
_____/Burma	Burma Agricultural Research and Development Project.	85-88	750,000 OP
_____/Burundi	Wildlife Inventories of Bururi and Romonge Forests (with Peace Corps).	85-87	10,000 Est.

¹See explanation of funding information and notation on p. A2.

IV. Research and Inventories (continued)

<u>Agency(ies)/Country(ies)</u>	<u>Project/Activity</u>	<u>Fiscal Year(s)</u>	<u>Funding¹</u>
<u>A. I. D./Cameroon</u>	National Cereals Research and Extension Project.	85-89	100,000 Est.
<u>_____ /Caribbean</u>	King Crab Mariculture Assessment.	86-88	250,000
<u>_____ /Egypt</u>	National Agricultural Research.	85-92	16,250,000 OP
<u>_____ /East and Southern Africa</u>	African Termite Microbial Resources.	85-86	219,000
<u>_____ /East and Southern Africa</u>	Regional Remote Sensing.	86-90	250,000
<u>_____ /Nepal</u>	Fire Ecology in Chitwan National Park.	85-87	30,000
<u>_____ /Pakistan</u>	Agricultural Research and Technology.	85-90	1,000,000
<u>_____ /Pakistan</u>	Agricultural Network.	85-90	2,000,000
<u>FWS/various</u>	Spanish Translation of Wildlife Management Techniques Manual and Journal of Wildlife Management.	85	10,000
<u>_____ /India</u>	Surveys of Ecology and Distribution of Vertebrates in India.	Begin 85	7,500 rupees

¹See explanation of funding information and notation on p. A2.

IV. Research and Inventories (continued)

<u>Agency(ies)/Countries</u>	<u>Project/Activity</u>	<u>Fiscal Year(s)</u>	<u>Funding¹</u>
<u>FWS/Pakistan</u>	Survey of Ecology and Distribution of Terrestrial Vertebrates in Pakistan.	Begin 85	7,500 rupees
<u>USDA/various</u>	Fourteen small studies in forestry, crop and wild plant research.	N/A	N/A
<u>_____/40 countries</u>	Germplasm exchanges.	85	N/A
<u>Smithsonian/Panama</u>	Evolution of Terrestrial Vertebrates (Bocas del Toro Is.)	86-90	15-20,000 Est.
<u>Smithsonian Tropical Research Institute/Panama</u>	Null Models of Tropical Diversity.	Begin 85	N/A
<u>_____/Panama and Malaysia</u>	Structure and Dynamics of Old Growth Tropical Forests.	Begin 85	N/A
<u>_____/Panama</u>	Seedling Flora of Panamanian Tropical Moist Forest.	85-89	N/A
<u>Smithsonian-National Zoological Park/Nepal</u>	Smithsonian-Nepal Terai Ecological Project.	N/A	N/A (partial funding by A.I.D)

¹See explanation of funding information and notation on p. A2.

IV. Research and Inventories (continued)

<u>Agency(ies)/Countries</u>	<u>Project/Activity</u>	<u>Fiscal Year(s)</u>	<u>Funding¹</u>
<u>Smithsonian-National Zoological Park/South Asia Region</u>	Population Biology and Husbandry of Asiatic Elephants.	Pending Approval	N/A
_____/India	Survey of Large Mammals of the Eastern Ghats.	Pending Approval	N/A
_____/South Africa	Smithsonian-Kruger National Park Project on Vertebrate Reproduction Physiology.	86	N/A
_____/Venezuela	Study of Aquatic Beetles in the Llanos of Venezuela.	85	N/A
_____/Venezuela	Mating Behavior in the South American Snail Kite.	85	N/A
_____/Venezuela	Survey of Aculeate Hymenopters (Stinging Wasps) of Northern Venezuela.	85	N/A
_____/Venezuela	Nutritional Analyses of Red Howler Monkey Diets.	85	N/A
<u>Smithsonian-National Museum of Natural History/various</u>	MAB Project/Inventory and Study of Biological Diversity in Biosphere Reserves.	Begin 86	45-60,000 Est.

¹See explanation of funding information and notation on p. A2.

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IV. Research and Inventories (continued)

<u>Agency(ies)/Country(ies)</u>	<u>Project/Activity</u>	<u>Fiscal Year(s)</u>	<u>Funding¹</u>
<u>NSF/Africa Region</u>	Endod Germplasm Investigations.	85-86	90,000
<u>___/Brazil</u>	Projeto Flora Amazonica.	85-87	140,000
<u>___/Brazil</u>	Ethnobotany of the Amazonia Jivaro.	85-87	105,000
<u>___/Central Africa Region</u>	Evolution of the Fauna of Lake Tanganyika.	85-86	94,000
<u>___/various</u>	2nd Conference on Conservation Biology.	85	20,000

V. Resource Management

<u>A.I.D./West Africa Region</u>	Support to the Fisheries Committee of the Eastern and Central Atlantic.	85-88	320,000
<u>___/Caribbean Region</u>	Assistance to Dominican Park Service.	85-87	20,000
<u>___/Caribbean Region</u>	Fisheries Stock Assessment Eastern Caribbean.	85	57,000
<u>___/Central America Region</u>	Tree Crop Production.	85-91	2,600,000

¹See explanation of funding information and notation on p. A2.

V. Resource Management (continued)

<u>Agency(ies)</u>	<u>Project/Activity</u>	<u>Fiscal Year(s)</u>	<u>Funding¹</u>
<u>A.I.D./Costa Rica</u>	Use of Local currency for Establishment of the La Selva/Los Carrillos Natural Area Corridor.	85	100,000
_____/Costa Rica	Use of Local Currency for Enhancing Management of Cano Negro Wildlife Refuge.	85-87	121,400
_____/Dominican Republic	Use of Local Currency to Promote Commercial Utilization of Indigenous Crab Species (in cooperation with the Smithsonian Institution).	N/A	200,000
_____/Guinea-Bissau	Food Crop Protection Project.	86-90	22,000
_____/Haiti	Mariculture of Queen Conch.	85-87	88,450
_____/Oman	Sea Turtle Management Plan.	86	2,000
_____/Pakistan	Food Security Management.	85-90	250,000
_____/Rwanda	Ruhengeri Resource Analysis and management.	85-86	350,000
_____/St. Kitts	Environmental Assessment (Road Project).	85-86	74,000

¹See explanation of funding information and notation on p. A2.

V. Resource Management (continued)

<u>Agency(ies)</u>	<u>Project/Activity</u>	<u>Fiscal Year(s)</u>	<u>Funding</u> ¹
<u>A.I.D./Thailand</u>	Eastern Seaboard Environmental Impact Assessment.	85	288,000
_____/Thailand	Thailand Marine Fisheries Assessment.	85	10,000
<u>State-Interior/</u> various	Accession to the Convention on Wetlands of International Importance.	In progress	N/A
<u>State/</u> various	Symposium on MAB Tropical Forest Research.	85	N/A
<u>NPS/Morocco</u>	Technical Assistance on Protected Areas.	86	50,000
_____/Africa	Technical Assistance on Coastal Resources Management for AID/AFR.	85	25,000 (A.I.D.)
_____/Saudi Arabia	Technical Assistance on Coastal Resources Management for Saudi Arabia (IUCN).	86	15,000
_____/Asia	Development of Planning Guidelines for ASEAN Heritage Parks (UNEP).	85	10,000
_____/Sri Lanka	NPS Advisor to Sri Lanka.	86-88	100,000 (A.I.D.)

¹See explanation of funding information and notation on p. A2.

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V. Resource Management (continued)

<u>Agency(ies)</u>	<u>Project/Activity</u>	<u>Fiscal Year(s)</u>	<u>Funding¹</u>
<u>NPS/Caribbean Region</u>	Technical Assistance on Parks/Protected Areas in St. Lucia, Barbados, Dominica and Grenada.	85	N/A
<u>_____/Latin America and the Caribbean Region</u>	Western Hemisphere Initiative.	86	250,000
<u>NOAA/Philippines</u>	Marine Environmental Assess- ment for Fisheries Development.	N/A	60,000

VI. Human Population Pressures
(no new initiatives reported)

VII. Organizational Coordination and NGO Support

<u>A.I.D./Somalia</u>	Partners in Development PVO Grants Program.	85-91	To be determined
<u>_____/Honduras</u>	Grant to the Honduran Ecological Association.	85	36,750
<u>State-Treasury- Interior-Justice- Agriculture/Various</u>	Coordination of Inter- national Wildlife Law Enforcement.	85	N/A

¹See explanation of funding information and notation on p. A2.

VII. Organizational Coordination and NGO Support (continued)

<u>Agency(ies)Country(ies)</u>	<u>Project/Activity</u>	<u>Fiscal Year(s)</u>	<u>Funding¹</u>
<u>State-A.I.D.- Treasury/</u> various	Environmental Review of Multilateral Development Bank Projects.	Ongoing	N/A
<u>State-USDA-A.I.D./</u> various	Revitalization of U.S. Tropical Forest Task Force.	Ongoing	N/A
<u>Multifaceted Projects</u> (Strategy elements to which projects respond are indicated by Roman numerals I-VII in parentheses.)			
<u>A.I.D./Sri Lanka, Ecuador</u>	Coastal Resource Management (I, II, III, IV, V).	85-89	650,000
<u>_____</u> - <u>FWS/Near East</u> Region	Biological Diversity Small Grants Program for the Near East (I,II, III, IV, V, VII).	Begin 86	66,000 A.I.D.
<u>_____</u> - <u>WWF/Latin</u> America and Africa Regions	Wildlands and Human Needs (II, III, IV, V, VII).	86-87	335,000 (A.I.D.)
<u>_____</u> /Lesotho	Agricultural Production and Institutional Support (II, III, IV, V).	85-91	N/A
<u>_____</u> /Nepal	Natural Resources Institute (III, IV, V).	87-95	1,200,000 OP

¹See explanation of funding information and notation on p. B2.

Multifaceted Projects (continued)
 (Strategy elements to which projects respond are indicated by Roman numerals I-VII in parentheses.)

<u>Agency(ies)/Country(ies)</u>	<u>Project/Activity</u>	<u>Fiscal Year(s)</u>	<u>Funding¹</u>
<u>A.I.D./South Pacific Region</u>	South Pacific Commission Multi-project support (III, IV, V).	85-89	80,000
<u>_____ /ASEAN</u>	Integrated Coastal Resources Management Project (ICLARM: III, V).	86-90	1,000,000

¹See explanation of funding information and notation on p. A2.

APPENDIX B

DRAFT A.I.D. ACTION PLAN
ON CONSERVING BIOLOGICAL DIVERSITY
IN DEVELOPING COUNTRIES

Prepared by
Bureau for Science and Technology
Office of Forestry, Environment, and Natural Resources

January 1986

INTRODUCTION

Biological Diversity refers to the number of species of microbes, plants and animals; the genetic variation within each species; and the variety and complexity of habitats and ecosystems. Scientists currently estimate that there are about 10 million species of microbes, plants and animals in existence. Insects and plants comprise the greatest number of species and , along with microbes, probably contain the greatest genetic variation within species. Humid tropical forests and marine corral reefs are the ecosystems that support the greatest number of species.

Biologists currently estimate that between 500,000 and 2,000,000 species--5-20% of all species on Earth--could become extinct by the year 2050, principally due to the loss of habitat. Although the loss of any single species may produce only trivial consequences for human welfare or survival, this projected mass extinction is cause for serious concern.

Of most immediate concern is the loss of biological diversity resources for agricultural, forest and range production. Modern agricultural production hinges heavily on the ability to manipulate the genetic makeup of species to develop strains or breeds suited to various environmental circumstances or resistant to various diseases, pests, and parasites. Forest and range production may become equally dependent on genetic improvement. Consequently, conservation of wild or semi-domesticated sources of germplasm for crop, tree and breed improvement is a strategic necessity for maintaining and improving food and fiber production.

Based on existing ethno-botanical and -zoological data, it is clear that the quality of life for rural people and their ability to earn adequate incomes are threatened by the rapid reduction in biological diversity. Rural people rely on a multitude of animal and plant species naturally occurring in their environment for food, fuel, medicine, construction materials and trade.

Further, human welfare would undoubtedly benefit from increasing the number of species utilized by man both for reasons of security and enrichment. The emergence of genetic engineering holds the promise that organisms might some day be specifically modified for man's needs. However, neither diversification of the resource base nor genetic engineering will be possible without conserving the raw material of species diversity and the genetic variation this contains.

Of nearly equal importance is the use of both wild and domesticated living resources in the production of medicines and industrial products. Roughly half of the world's pharmaceuticals are currently derived from plants, including wild or cultivated varieties. Microbial and animal resources also contribute. Preliminary research has indicated that roughly 10% of plant species tested provided extracts with some anti-cancer properties. Yet, only about 1% of plant species have been tested. Beyond the obvious necessities of food, clothing and shelter and the humanitarian benefits of pharmaceuticals, living resources provide major industrial commodities of significant economic value.

Finally, the influence of biological diversity on basic environmental parameters such as climate, rainfall patterns, and nutrient cycles is not fully understood. Although biological components are known essential features of these processes, the importance of diversity, per se, is yet to be fully determined. Nevertheless, society must be cognizant of the fact that some level of biological diversity may well prove critical to perpetuation of such general features of the human environment as current climatic zones, rainfall patterns, agricultural productivity, etc.

The linkages between biological diversity and natural resources are many in that processes leading to the destruction of natural resources, such as deforestation, also reduce the diversity of species in a country. However, this plan also addresses the particular actions needed to ensure the conservation of biological diversity over and above those necessary for sustainable resource use. Indeed, there can be occasions when the protection of biological diversity through in-situ or ex-situ methods is in conflict with natural resource management goals. An example might be the construction of dams in a previously undisturbed tropical forest in order to provide a regular source of water for irrigation.

THE INTERNATIONAL ENVIRONMENTAL PROTECTION ACT of 1983

Recognizing the importance of and threats to biological diversity, Congress passed the International Environmental Protection Act of 1983 (PL 98-164) adding Sec. 119 to the Foreign Assistance Act.

Sec. 119 of the Foreign Assistance Act:

1. Authorizes the President to furnish assistance to countries in protecting and maintaining wildlife habitats and in developing sound wildlife management and plant conservation programs (Sec. 119(b)).

2. Directs the Administrator of the Agency for International Development (AID) in consultation with the heads of other appropriate Government agencies, to develop a United States Strategy, including specific policies and programs, to protect and conserve biological diversity in developing countries (Sec. 119(c)).
3. Requires the President to report annually to Congress on the implementation of Sec. 119. (Sec. 119(d)).

THE U.S. STRATEGY ON THE CONSERVATION OF BIOLOGICAL DIVERSITY

In response to Sec. 119(d), AID took the lead in establishing an Interagency Task Force charged with reviewing the case for conserving biological diversity; surveying current U.S. Government agencies' activities and programs affecting biological diversity in developing countries; and formulating a comprehensive international biological diversity conservation strategy with specific recommendations for action. The result of this effort, the U.S. Strategy on the Conservation of Biological Diversity: An Interagency Task Force Report to Congress (hereafter the Strategy) was published in February of 1985.

During the course of its work a strong consensus emerged within the Task Force that in developing countries valuable and productive living resources are generally deteriorating. Because biological diversity is both a measure of economic potential as well as genetic wealth, such deterioration, where it is occurring, jeopardizes the very basis of sustained economic development. Consequently the major conclusion of the Task Force is that provisions for conserving biological diversity must be incorporated into development planning and a concern for biological diversity should be an integral part of all development programs.

The Strategy identifies 67 recommendations for action by the U.S. Government or other public or private institutions or organizations that would enhance the conservation of biological diversity in developing countries. These recommendations are grouped into seven major strategy elements:

- A. Continue an ongoing policy dialogue within federal agencies and with developing countries on international biological diversity, and help countries establish and implement national policies for conserving, managing, and developing genetic resources.

- B. Through education programs in developing countries increase public awareness of the need to conserve biological diversity.
- C. Strengthen developing-country conservation institutions and increase conservation training.
- D. Support research related to biodiversity conservation and inventories of species and ecosystems.
- E. Promote balanced resource management and the designation and maintenance of protected areas.
- F. Encourage developing countries to recognize the effects of and deal with human population pressures on natural resources.
- G. Increase coordination among development assistance agencies and support nongovernmental conservation organizations.

DRAFT AID ACTION PLAN ON CONSERVING BIOLOGICAL
DIVERSITY IN DEVELOPING COUNTRIES

The Strategy identified AID involvement for 33 of the 67 action recommendation spanning all seven major strategy elements. AID/W has reviewed these recommendations in light of current AID programs and resources and developed this Draft AID Action Plan on Conserving Biological Diversity in Developing Countries (hereafter the Draft Action Plan).

Current AID programs and activities touch upon many of the Strategy's recommendations. Furthermore, AID programs and activities often affect biological diversity directly or indirectly. Consequently, this Draft Action Plan emphasizes the incorporation of biological diversity conservation into ongoing AID programs and activities. For each of the seven major strategy elements, the action recommendations involving AID are re-stated. Where possible recommendations requiring essentially similar actions are grouped together. Specific actions implementing the recommendations are identified (*). Each action is assigned to one of two priority categories: (I) near-term or (II) long-term. Near-term actions are those that can be accomplished or initiated within the next two fiscal years (FY 1986-FY 1987) with available resources. Long-term priority is assigned to those actions crucial to strategy

implementation but that will require additional or redirected resources. It is important to note that many of these long-term actions can be achieved with very modest resources in the project design and implementation process. These actions should be taken as soon as resources are made available. Nevertheless, these actions will require time for proper planning and implementation. Further prioritization of actions by regions and countries and a final Agency action plan will be developed in consultation with the Regional Bureaus and USAID Missions.

Appendix I summarizes the various actions by priority category and identifies lead (underscored) and support offices. Missions are asked to review this Draft Action Plan and are encouraged to use it to help integrate biological diversity conservation into their programs in response to host country needs and priorities. Missions can call on the Bureau for Science and Technology, the Regional Bureaus and other relevant offices for technical assistance in implementing this plan.

A. POLICY DIALOGUE AND NATIONAL POLICIES

Conservation and development are closely interrelated. The conservation of natural resources is an essential requisite for ensuring future development in LDCs while development creates the capacity and motivation for continuing conservation efforts.

Policy changes needed to bring about appropriately managed systems must be discussed and established at the highest government levels. Dialogue is a most important process toward achieving those policies.

Recommendation 1. "The USG should utilize this strategy for assistance to LDCs in the conservation of natural resources. This Strategy should be considered in all discussions of country development assistance strategies and of projects that could potentially impact upon biological diversity."

Recommendation 2. "Consideration should be given to providing grant support to projects in LDCs which are judged by donor agencies as important for the conservation of critical biological diversity and other values, or for otherwise promoting this Strategy when an LDC is unable or unwilling to obtain loan financing."

Action(s)

* AID will review and revise as necessary its Policy Determination 6 on Environment and Development to incorporate the intent of Section 119 of the Foreign Assistance Act (FAA) and to promote the utilization of the Strategy in its dialogue with host countries on development assistance programs and natural resource management. The issue of grant support for LDC conservation projects will be addressed. Priority I

Recommendation 3. "USG agencies should continue to adopt Policies withholding support for certain types of projects that degrade or destroy fragile or protected lands.

Action(s)

* AID will review its environmental assessment guidelines and provide additional guidance as necessary to incorporate the intent of Section 119 of the FAA. Missions can currently utilize assistance from the Development Strategies for Fragile Lands Project (S&T/RD) for development of projects in moist tropical forests which may be potentially degrading. Other projects which may be of assistance to Missions in avoiding the degradation of natural systems will be identified. Priority I

Recommendation 5. "AID should work with other U.S. agencies to establish a system for identifying employees with experience and expertise appropriate for establishing a cadre of specialists that can assist AID in policy dialogue, analysis, and management for natural resources conservation and the protection of biological diversity."

Action(s)

* AID will consult with the U.S. Forest Service (FS), the Soil Conservation Service (SCS), the Departments of Interior and Commerce, the National Research Council (NRC), the International Institute for Environment and Development, (IIED), the International Union for the Conservation of Nature and Natural Resources (IUCN) and the Ecological Society of America (ESA) to determine the status, compatibility and means of coordination of current registers

of personnel with interest and expertise in international biological conservation. Options for developing a biological diversity register will be identified. Priority I

Recommendation 6. "AID should assist LDCs that wish to establish intra- and intergovernmental commissions to carry out planning, development, coordination, evaluation, and sustainability of natural resource management."

Action(s)

* Missions and Regional Offices are encouraged to identify, with host countries, opportunities to establish or enhance relevant intra- and intergovernmental commissions dealing with natural resource development and management in the context of existing or planned development projects. The Bureau for Africa's (AFR) interim support of the Fisheries Committee on the Eastern Central Atlantic (CECAF) is an example of how AID support can help intra-governmental efforts at sustainable development of a living resource with both positive economic and human welfare implications. Priority II

B. PUBLIC AWARENESS AND EDUCATION

Experience has shown that the capacity of governments to protect and manage indigenous biological resources cannot be strengthened solely through new legislation, regulation, or management by central agencies. Where absent, an appropriate policy framework is necessary as a first step. Just as essential are awareness and education programs which motivate and enable local people to undertake the monitoring and managing of natural resources in a manner that conserves biological diversity.

Effective conservation of biological diversity in developing countries thus relies on effective demonstration of practical economic benefits to governments, as well as to the local populations. Particular attention should be given to the linkage between protected area management and human needs in adjacent areas.

Recommendation 8. "AID Mission Environmental Officers should identify, encourage, and support promising LDC conservation education programs and activities."

Recommendation 9. " AID should be encouraged to program formal education assistance for conservation education curricula and teacher training programs in LDC educational institutions (e.g. Ministries of Education)."

Recommendation 11. "In cooperation with other U.S. Agencies, AID should ascertain which LDCs desire to have a conservation education/public awareness program and should then assist in designing, and implementing such programs through the domestic technical agencies and NGOs with expertise in these areas."

Action(s)

AID is already involved in environmental awareness and education efforts in several countries in Latin America, Africa and Asia.

* AID will review these and other education efforts with a view to (i) identifying successful past, present and ongoing activities and (ii) identifying opportunities for expanding these efforts. Guidance on assistance available for expanding efforts in accord with Recommendations 8, 9 and 11 will be provided to the Missions. Missions are encouraged to use this guidance to consult with host countries on opportunities to initiate or enhance environmental awareness and education efforts particularly in the context of ongoing or planned projects. Particular attention should be given to PVO co-financing programs at the Mission level. Priority II

C. INSTITUTIONS AND TRAINING

Governmental policies that can effect the change from natural to intensively managed ecosystems are intimately linked to the institutional, economic, and political structures of a nation. Many agencies are involved in the development and management of the various ecosystems and their resources, but a major problem is the lack of coordinated action among agencies.

Nearly one-half of all USAID Missions surveyed by the Task Force identified the need to develop and strengthen natural resource management institutions as a top priority, and as a basic requirement for integrated planning and management of renewable natural resources.

Training is also a key element in planning for and managing living natural resources. A wide variety of training methods and approaches are available.

Recommendation 13. "Development projects affecting renewable natural resources should include support for requisite natural resource management training. These projects can allow for assignment of students at training centers as part of the planning process directly associated with the specific project while providing examples of the range of natural resource conservation considerations involved in development."

Recommendation 14. "AID should develop regular workshops for all Mission staff prior to overseas assignment and periodically in the field to provide a working knowledge of the importance of biological diversity and resource conservation to sustainable development. These training programs should be incorporated into the overall AID Training Office program and should be conducted by AID environmental staff with assistance from appropriate technical agencies.

Recommendation 15. "Support of ongoing training efforts in LDC's for ex-situ and in-situ germplasm protection should be a continual effort".

Action(s)

AID is already substantially involved in a wide variety of training activities, both for host country and agency personnel, in various facets of natural resources management.

* AID will review these activities to identify existing training components and opportunities for additional efforts where biological diversity conservation can be addressed. In particular the importance of biological diversity for sector priorities in development as well as the ex-situ and in-situ means of germplasm protection will be stressed. AID/W will provide guidance to the Missions on incorporation of biological conservation training components as part of natural resource development projects. Missions are encouraged to use this guidance to consult with host countries and identify national needs and priorities in biological conservation training. Priority II

* In cooperation with the Bureau for Latin America and the Caribbean (LAC), RARE, Inc. is conducting Mission visits and workshops on biological diversity and conservation in Latin America and the Caribbean during the first quarter of FY 86. Based on this trial experience, proposals for expansion of the program to other regions and/or a pre-assignment training workshop for USAID Mission personnel will be developed. Priority I.

Recommendation 22. "Natural resource management agencies and private organizations in developing countries should be developed and/or strengthened to improve their capabilities to effectively plan and implement programs in natural resource management. Long-term support is needed for increasing the capacity of national service agencies in resource management...to:

- a. Inventory and monitor biological ecosystems....,
- b. Analyze, interpret, plan and predict long-term vs. short-term, and tangible vs. intangible benefits....,
- c. Provide services to resource users in effective management of land and water resources to prevent resource degradation."

Action(s)

A major need in integrating conservation into development planning is to develop institutions responsible for assessing, monitoring and advising on biological diversity resources. Such institutions should be integrated into host country governments and staffed by host country personnel. The Nature Conservancy's (TNC) International Program is currently developing such institutions--Conservation Data Centers--in cooperation with several governments in Central and South America and the Caribbean.

* AID will consult with TNC on their program to determine how AID can encourage host country governments to develop conservation data centers or similar institutions. Guidance on establishing conservation data centers will be provided to Missions. Missions are encouraged to consult with host countries on opportunities to develop conservation data centers as part of on-going or planned natural resource development and management projects. Priority II.

Recommendation 23. "Research institutions in developing countries which are concerned with natural resources and biological diversity should be developed and/or strengthened to provide the basic information necessary for effective decision making."

Action(s)

* AID is already substantially involved, through its support to the Consultative Group on International Agricultural Research (CGIAR) and the International Agricultural Research Centers (IARCs) in LDC agricultural research and in the collection of crop germplasm. The International Board on Plant Genetic Resources (IBPGR), one of the CGIAR institutions, is coordinating this effort and assisting national governments in training and the building of local germplasm collections. Missions are encouraged to investigate linkages with local IBPGR activities. AID is also developing a dialogue with various forestry and other natural resources research institutions (e.g. the International Union of Forest Research Organizations, the East-West Center) on LDC forestry and natural resource economics and planning. AID will employ these collaborative and consultative efforts to encourage a dialogue on strengthening both national and international research efforts on broader and more effective utilization of biological diversity in sustainable LDC agricultural and forestry systems. Priority I.

Recommendation 25. "A core group of AID professional staff should be trained in ecology and natural resources management, particularly at the regional support office and field Mission level. As AID continues to assume a major role in conservation activities, it requires adequate numbers of appropriately trained staff to work with and advise Missions."

Action(s)

* AID will review its personnel and training policies and guidelines and determine options for enhancement of natural resources and biological diversity expertise through both direct-hire personnel and in-service training. Priority I.

D. RESEARCH AND INVENTORIES

Until a better understanding of the existence and distribution of important habitats is obtained, priorities for protection and management are difficult to establish. Likewise, little is now known about the biota in many areas of the tropics that are destined for further development. Perhaps as few as one out of six species has been classified. A major research effort, based in respective developing countries, is needed to carry out such inventories and to establish ecosystem dynamics so that subsequent management strategies can be developed.

Research and evaluations of the overall distribution of valuable individual species (plants, animals, and microbes) for their potential usefulness in terms of agricultural productivity, medicines, or in the generation of foreign exchange are also necessary.

Another major gap in scientific information is of traditional multispecies agricultural systems. This area of study takes on greater importance because human populations living and relying on traditional systems are among the first elements to be disrupted through increased population pressures and development efforts.

Recommendation 27. "U.S. representatives to various donor agencies and international organizations such as UNDP and FAO should encourage reprogramming for research and testing of the utilization of currently unused, native species of trees/shrubs. AID should also give greater attention to support for research and testing in this area."

Recommendation 29. "As it plans new agricultural projects, AID should encourage host governments to carefully evaluate the comparative potential of traditional systems and the more intensive, high-yield agricultural systems. AID Missions should incorporate requisite project design funding for such comparisons when appropriate for agricultural projects."

Recommendation 31. "Opportunities to develop commercial markets in native species on a sustained-yield basis should be explored (e.g., capybara as a food source in Brazil...). Small scale subsistence economies based on local wildlands/products are also a possibility. This should be explored by AID Mission staff in consultation with host country wildlife and agriculture experts and technical experts from USG agencies and NGOs."

Action(s)

AID is already involved in supporting work on the identification, assessment and/or development of new agricultural, forestry or other living resource products or production systems. Examples include support to the NRC's, Board of Science and Technology for International Development (BOSTID) sponsored program on neglected genetic resources; the Office of Forestry, Environment and Natural Resources (S&T/FENR), Forestry Fuelwood Research and Development project; the Science Advisors (SCI) project on biological and nutritional studies of Philippine indigenous food and forage legumes; USAID Mission-sponsored ethnobotanical studies on the Eastern slope of the Ecuadorian Andes; and AID support of butterfly and crocodile commercial farming in Papua, New Guinea.

Action(s)

- * To the extent feasible, Recommendations 27 and 29 will be incorporated into the revision of PD#6 (see Action(s) under Recs. 1 and 2); in AID's Agricultural Development Policy and Strategy; and in Country Development Strategy Statements for the agricultural sector. Priority I
- * SCI's FY 1986 biological diversity research grants program will solicit innovative proposals on terrestrial and aquatic ecosystems and on plant, animal and microbial resources of potential or recognized economic development value. Priority I.
- * AID will continue to explore, at the Central Bureau and Mission level, opportunities to develop new or enhance commercial markets for native species on a sustained yield basis. Priority I.
- * In addition, AID will solicit proposals for an overview report on the technical/economic potentials and constraints in commercial development of underutilized biological resources. Priority I.

Recommendation 32. "In cooperation with other U.S. agencies and appropriate international organizations such as IUCN, UNEP, and WWF, AID should carry out a cooperative evaluation of the adequacy of coverage and the quality of protection provided for biological diversity in existing parks and protected areas, beginning within the Neotropics."

Action(s)

The Office of Technology Assessment (OTA) is currently preparing a report to Congress on technologies to maintain biological diversity. The report is scheduled for transmittal to Congress in 1986. Because the report will include reviews of topics relative to Recommendation 32, AID will defer major action on this recommendation until such action can benefit from the information in OTA's report. In the interim the following action will be taken.

* AID/W will provide Missions guidance on the status of and/or possibilities for Biosphere Reserves, World Heritage Sites and Wetlands of International Importance in host countries. Priority I

Recommendation 34. "Increased support should be provided for research on affordable energy conservation in LDCs."

Note: AID, through S&T/EY, and S&T/FENR and other offices and the Regional Bureaus is already engaged in substantial research efforts to both assess and develop affordable energy substitutes and energy conservation measures.

Recommendation 35. "Research and monitoring programs need to be developed that will provide information on management for increased productivity of nonprotected terrestrial and marine areas already in use and/or degraded, such as croplands, rangelands, timberlands, and coastal areas, including mangroves.... Investigation of new land uses is particularly important in returning degraded lands to productive use. Research direction should be provided by the ... individual countries...(and)... should be carried out in-country with support from AID and USDA, (utilizing) expertise and training supplied by various U.S. agencies"

AID, through S&T/AGR, has supported substantial research efforts on soil conservation and sustainable agricultural land use.

Action(s)

* AID will review its portfolio of projects related to the redevelopment and rehabilitation of currently used areas to

identify opportunities for increasing research and monitoring programs for restoring productivity. Missions are encouraged to discuss opportunities with host countries for incorporation of such research and monitoring programs in the context of ongoing or planned natural resource re-development and rehabilitation projects. Priority II.

Recommendation 37. "The distribution of critical and/or threatened habitats should be established to identify priority areas that need to be inventoried.... The USG should support an expansion of biological inventories and related studies and should encourage the combining of regional studies by U.S. agencies and international organizations.... Host country participation is ...critical...."

Action(s)

* AID will consult with, e.g., International Board on Plant Genetic Resources (IBPGR), TNC's International Program and the IUCN's Conservation Monitoring Center to explore (i) possible collaboration in fostering conservation data centers in host countries desiring, but currently lacking, such facilities (see Action(s) under Rec. 27); and (ii) enhancing the utility and utilization of the IUCN's Conservation Monitoring Center in AID and host country development project planning and design. Proposals with options will be prepared. Priority I

E. RESOURCE MANAGEMENT

An effective development strategy requires sound planning and management for sustained natural resource use. Many developing countries lack sufficient information on the natural resource base to implement development interventions proposed by assistance agencies.

Rehabilitation is often necessary to restore productivity and reduce pressure on remaining natural areas. In planning for restoration, attention needs to be given to learning which species and species complexes are likely to be successful. The introduction of non-native (exotic) species must be carefully weighed, since these may overwhelm the communities they invade, thus diminishing rather than restoring biological diversity.

The accelerated extinctions of species projected in the coming decades will be largely human-generated. As human populations grow and development activities expand, wild areas and habitats of many animals and native plants may disappear. Greater attention is needed in the management of existing protected areas, and for the establishment of additional ones.

Recommendation 38. "USG agencies should exercise leadership in influencing the international donor community and organizations such as UNDP and FAO to give greater attention to the potential of projects that support the use of native species and systems over projects that use exotic species and monocultures to rehabilitate or reclaim habitats."

Note: This recommendation requires further consideration. A position paper will be prepared.

Recommendation 42. "The USDA, AID and other appropriate agencies should examine options for broader use of PL-480 generated funds in support of programs conserving biological diversity, including establishment and management of parks and other protected areas."

Action(s)

* AID will consult with USDA, the U.S. Fish and Wildlife Service, (FWS), National Park Service (NPS) and other appropriate agencies to identify options, priorities and constraints for broader use of PL-480 funds to support biological diversity conservation programs. A report on these consultations will be included in AID's FY 87 report to Congress on Section 119 activities. Priority I

Recommendation 46. "AID's environmental assessment program should continue to help in determining land use capability and best use of specific lands, and should begin during the earliest stages of project design."

Action(s)

* (see Actions(s) under Recommendation 3). I

Recommendation 49. "AID should establish a core resource staff, either within the Agency or through cooperative arrangements with the Department of Interior and Commerce, U.S. university and NGO communities, that can provide its Regional Bureaus and Missions with direct planning assistance on biological diversity."

Action(s)

Many of the actions called for in Recommendations 5, 14, 25 and 49 are analogous to functions performed by the U.S. Forest Service's Forestry Support Group for AID's forestry program and activities. Thus, this group could serve as a model and partial source for the organization and implementation of similar activities in the area of biological diversity conservation.

* AID will consult with USDA, FWS, NPS and the National Marine Fisheries Service (NMFS) and appropriate NGOs and develop options for the development of a natural resources/biological diversity support group. Priority I.

Recommendation 52. "The USG and appropriate international conservation organizations should continue to assist developing countries to prepare national and regional plans, environmental profiles and conservation strategies. This assistance will enable countries to determine for themselves what is to be done to achieve sustainable development and to help development assistance agencies incorporate specific assistance programs for natural resources conservation in their annual plans."

Action(s)

AID has been and is substantially involved in providing such assistance via the development of Country Environmental Profiles (CEPs-14 completed or underway; 4 planned), Natural Resource Sector Assessments (NRSAs-2) and the support of National Conservation Strategies (NCSs-3 completed or underway).

* Missions are encouraged to consult with host countries to determine those desiring but not currently having CEPs or NCSs. AID/W will look favorably on requests from Missions to build in costs of CEPs, and NCSs, as part of ongoing or planned agricultural, forestry or natural resources development projects. Priority II.

Recommendation 53. "Natural resource agencies in LDCs should be encouraged and supported in the strengthening and maintenance of existing protected areas, such as forest reserves, wildlife refuges, national parks, biosphere reserves, and marine sanctuaries as well as establishing additional protected areas that represent a complete range of biogeographic provinces worldwide."

Action(s)

AID is already involved in providing technical assistance for protected areas establishment and management in several countries. In many LDC's, protected areas already exist but resources are often not available for adequate management. AID recognizes that the systematic conservation of biological diversity may well require the establishment of additional protected area and enhanced management of current areas.

* AID will review its programs and resources to determine what role the Agency may play in assisting host countries with protected areas planning, establishment and management in the context of ongoing or planned development projects. Guidance on this action will be provided to the Missions. Missions are encouraged to consult with host countries on their needs and priorities in this area. Priority II.

* AID/W will explore the possibility of establishing modest regional conservation assistance projects that can respond to individual country requests for assistance in planning, establishment or management of protected areas. Priority II.

Recommendation 56. "The USG should provide assistance to LDCs in efforts to assess threatened and endangered plant species, and working toward a national system of protected areas. As USAID Missions in Tunisia, India, Jamaica, and elsewhere have noted, there is need for adequate training and institutional strengthening for management agencies.... These efforts should be focused (on) assisting LDCs in: inventories and mapping of plant communities; research and monitoring of dynamic ecological processes; education and training; information management; integrated land use policy and planning; environmental impact assessment; and establishment of conservation priorities."

Action(s)

* AID/W will consult with FWS, NPS, and NMFS on assistance available to LDCs on Recommendation 56. Guidance on assistance available on endangered species and protected areas management from these agencies will be provided to the Missions. Priority II.

F. HUMAN POPULATION PRESSURES

The need to conserve biological diversity is a crucial dimension of the struggle for equitable economic development. Conservation is both a matter of investment and insurance. The presence of sustainable, highly productive agricultural, forestry, and fisheries systems helps maintain diversity by reducing pressures for opening of new areas to development.

In most of the world's developing countries, increasing human population pressures on natural resources are perhaps the primary hindrance to effective conservation. As rapidly increasing numbers of people strive to obtain sufficient food for themselves and their livestock as well as adequate supplies of energy, they are forced further into ecologically sensitive areas. Efforts to strengthen policy dialogue, institutions, and training focused on natural resources conservation will be greatly diluted without effective family planning.

Recommendation 60. "The U.S. should help leaders and opinion-makers of developing countries understand the potential impact of rapid population growth on national development goals.... AID and host country project planners should ensure that social, cultural, and population dynamics factors are considered in all projects."

Action(s)

* AID has long been involved in a concerted and continuing policy dialogue on population issues. This dialogue will be continued and, where feasible, enhanced by incorporating biological diversity considerations among other natural resource considerations in the population issue. Priority I.

Recommendation 61. "The U.S. should continue its commitment to provide technical and material assistance to family planning programs in developing countries. This assistance must continue to focus primarily on the provision of voluntary family planning services, through both public and private efforts. Complementary efforts must be continued to improve the health and nutritional status of women and children so that morbidity and mortality rates fall... AID and private voluntary organizations should be encouraged and supported to expand their family planning programs."

Action(s)

* AID already provides substantial technical and material assistance to voluntary family planning programs. This will be maintained or enhanced as budget and policy considerations permit. Priority I.

G. ORGANIZATIONAL COORDINATION AND NGO SUPPORT

Consistency among the USG, PVOs, NGOs, and international organizations in the formulation and implementation of development strategies has a major influence on leadership in developing countries.

The capability of nations to effectively manage their own biological resources is strengthened when governmental and nongovernmental institutions as well as international organizations focus their limited financial and technical resources.

Nongovernmental organizations are often the most effective mechanism in LDCs for improving the management of biological resources at the local level. Where nongovernmental organizations exist that are effective at local levels, the U.S. and host countries should move to strengthen and expand upon that effectiveness

Recommendations 62. "The U.S. should enhance capabilities and build on established mechanisms among donors to:

--provide a forum among development assistance agencies and bilateral and multilateral donors (banks) for more effective communications and cooperation among participants in

developing policies, programs and projects for the conservation of biological diversity.

--identify opportunities for pooling human and financial resources from conservation, research and development sectors.

--coordinate the use of U.S. technological capabilities to promote conservation of biological diversity and integrated development in LDCs through coordinated program planning and development among U.S. agencies that have technical expertise and programs to assist development agencies.

--plan and coordinate bilateral and multilateral support for research, demonstration and training activities, with attention to integrating conservation of diversity into rural development programs."

Action(s)

* AID will assure that the principal development assistance agencies and bi-and multilateral donors (banks) are aware of the U.S. Strategy on the Conservation of Biological Diversity and this AID Action Plan for Strategy implementation. Priority I.

* AID will continue the Interagency Task Force (ITF) on Biological Diversity as a means of coordinating overall USG implementation of the Strategy. Representatives of the principal development assistance agencies and bi-and multilateral donors may be invited, periodically, to attend ITF meetings in an observational capacity. Priority I.

* In addition, AID will employ other existing forums for informing the development assistance/donor community of AID/USG policy, direction and activities on biological diversity conservation e.g., the Development Assistance Committee - DAC- of the OECD. Priority I.

* AID will also use these means to identify opportunities for collaboration with other development assistance/donor agencies on biological diversity conservation. Priority I.

Recommendation 66. "The many U.S. private and voluntary organizations operating in developing countries, such as CODEL, VITA and the WWF-U.S., should continue to increase and coordinate their efforts aimed at training and research in natural resource management and make every effort to exchange information between organizations."

Recommendation 67. "AID should expand support for low cost conservation projects implemented by LDC Private Voluntary Organizations, drawing on positive experiences gained through support of such organizations in Ecuador, Costa Rica, Panama and Indonesia."

Action(s)

AID is already supporting US and LDC NGO/PVO programs on biological diversity conservation. The Bureau for Asia and the Near East (ANE) through a cooperative agreement with FWS will provide matching funds for NGO/PVO conservation projects in Egypt, India and Pakistan. In addition the office of Private Voluntary Cooperation (FVA/PVC) is cooperating with the World Wildlife Fund-U.S. (WWF-U.S.) on a program to develop a set of field projects in selected countries in Latin America & Africa linking conservation with human development needs in and adjacent to protected areas. Such programs can serve as models for other Missions and Bureaus in AID.

* AID will consider support for proposed projects by U.S. and LDC NGOs/PVOs which (i) are responsive to action recommendations in the Strategy; (ii) acceptable to host countries; (iii) geared toward building host country human and institutional capabilities; and (iv) are cost effective relative to alternative government initiatives. Priority II.

In addition to these recommendations for action by AID contained in the Strategy, additional recommendations for action by the USG were noted. AID will review these recommendations to determine what, if any, role the Agency may play in their implementation. This review and any new AID Action Plan items that may be identified will be included in the FY 86 report to Congress.

In addition, AID will reconvene the Interagency Task Force on Biological Diversity (at least once annually) to inform other agencies of this Action Plan; our progress in Strategy implementation; and to discuss their corresponding efforts. Progress by all relevant parties will be incorporated in the annual report to Congress.

Appendix A. Prioritization of AID Actions to Implement the
U.S. Strategy on the Conservation of Biological Diversity

Priority I. Near-term actions (to be completed or initiated within
the next two years with available resources).

<u>Recommendation(s)</u>	<u>Action(s)</u>	<u>Lead and Support Offices</u>
1 & 2	Review and revise as necessary Policy Determination 6 on the Environment and Development.	<u>PPC</u> , <u>Env. Coord.</u> , S&T, AFR, ANE, LAC, GC
3	Review and revise as necessary AID environmental assessment guidelines.	<u>Env. Coord.</u> , PPC, S&T, AFR, ANE, LAC, GC
5	Develop options for a register of personnel with biological diversity expertise.	<u>Env. Coord.</u> , S&T
13, 14, 15	Develop options for Mission or pre-assignment workshops for Mission personnel on biological diversity conservation.	<u>S&T/FENR</u> , M/PM, IT, AFR, ANE, LAC,
23	Initiate a dialogue on Strengthening LDC national and international research on broader, more effective utilization of biological diversity in sustainable agricultural and forestry systems.	<u>S&T/AGR</u> , <u>FENR</u>
25	Review personnel and training policies and guidelines to determine options for enhancing natural resources management backgrounds through direct-hire personnel and/or in-service training.	<u>S&T</u> , M/PM, AFR, ANE, LAC

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Appendix A. (Cont.)

<u>Recommendation(s)</u>	Priority I <u>Action(s)</u>	<u>Lead and Support Offices</u>
27, 29, 31	<p>Incorporate, as feasible, Rec. 27 and 29 with the revision of AID's Policy Determination on the Environment and Development, the Agricultural Development Policy and Strategy and the Country Development Strategy Statements for the agricultural sector.</p> <p>Develop a biological diversity component for the Science Advisors research grants program.</p> <p>Explore opportunities for commercial development of currently unutilized native species on a sustained-yield basis.</p> <p>Prepare an overview report on the technical/economic potentials and constraint for commercial development of new biological resources.</p>	<p><u>PPC, S&T/AGR, Missions, Env. Coord., FENR, AFR, ANE, LAC</u></p>
32	<p>Provide Missions guidance on the status of and possibilities for Biosphere Reserves, World Heritage Sites and Wetlands of International Importance in host countries.</p>	<u>S&T/FENR</u>
37	<p>Develop proposals for collaboration between AID and, e.g. the International Board on Plant Genetic Resources, the Nature Conservancy's International Program and the IUCN's Conservation Monitoring Center on the development of national conservation data centers and linkage into a global conservation data center.</p>	<u>S&T/FENR, AGR, PPC, AFR, ANE, LAC</u>

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Appendix A. (cont.)

Priority I

Recommendation(s)

Action(s)

Lead and Support Offices

42	Prepare report on options priorities and constraints for broader use of PL-480 funds in conservation programs.	PPC, FVA/PVC, GC, LEG coordinate with USDA and USDI.
46	(see Actions under Rec. 3)	
49	Develop options for a natural resources/biological diversity support group.	<u>S&T/FENR</u> , AGR, PPC
60 & 61	Continue present efforts on population issues.	<u>S&T/POP</u> , Missions
62	Inform the principal development assistance agencies and bi- and multilateral donors, of the <u>U.S. Strategy on the Conservation of Biological Diversity</u> .	<u>PPC/Env. Coord.</u>
	Continue the Interagency Task Force on Biological Diversity.	<u>S&T</u>
	Employ other fora (Development Assistance Committee of the OECD) for informing the development assistance Community of USG/AID policy direction and activities on biological diversity conservation.	<u>PPC</u> , <u>Env. Coord.</u>
	Identify opportunities for collaboration with other donor agencies.	<u>PPC</u> , <u>Env. Coord.</u> , S&T

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Appendix A. (cont.)

Priority II. Long-term actions requiring additional or redirected resources.

<u>Recommendation(s)</u>	<u>Action(s)</u>	<u>Lead and Support Offices</u>
6	Where appropriate and feasible assist development of intra- and intergovernmental commissions dealing with natural resource management and development.	AFR, ANE, LAC, Regional Offices, Missions.
8, 9, 11	Provide guidance to Missions on enhancing environmental awareness and education activities. Encourage Missions to consult with host countries to identify opportunities.	S&T/FENR, ED, FVA/PVC, AFR, ANE, LAC, Missions
13, 14, 15	Provide guidance to Missions on enhancing biological diversity conservation training components of development projects. Encourage Missions to consult with host countries to identify needs and priorities.	S&T/AGR, FENR, IT, AFR, ANE, LAC, Missions
22	Provide guidance to Missions on strengthening developing country natural resource management agencies. Encourage Missions to consult with host countries to identify types of useful assistance.	S&T, PPC, AFR, ANE, LAC, Missions
35	Determine opportunities for increasing research on restoring productivity of degraded areas. Encourage Missions to consult with host countries to identify opportunities.	S&T/AGR, FENR, RD, AFR, ANE, LAC Missions

Appendix A (cont.)

Priority II

Recommendation(s)

Action(s)

Lead and Support Offices

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|---------|--|---|
| 52 | Missions are encouraged to incorporate the costs of Country Environmental Profiles and National Conservation Strategies as part of ongoing or planned agricultural, forestry or natural resource development projects or through allocation of PD&S Funds. | Missions, <u>AFR</u> , <u>ANE</u> , <u>LAC</u> , PPC, <u>S&T/FENR</u> |
| 53 | Provide guidance to Missions on enhancing support for planning, establishment and management of protected areas in the context of development projects. Encourage Missions to consult with host countries on needs and priorities. | <u>Missions</u> , <u>PPC</u> , <u>S&T/FENR</u> |
| 56 | Explore options for developing Regional conservation support projects. | <u>S&T/FENR</u> , <u>AFR</u> , <u>ANE</u> , <u>LAC</u> |
| 66 & 67 | Consult with FWS, NPS, NMFS, FS on assistance available to LDC's on endangered species and protected areas management. Provide guidance to Missions. | <u>S&T/FENR</u> |
| | Consider support for U.S. and LDC NGO/PVO projects on biological diversity conservation. | Central and Regional Bureaus and the Missions |

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