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**United States
Department of
Agriculture**

Forest Service
and Office
of International
Cooperation and
Development

**United States
Agency for
International
Development**

PROGRESS REPORT OF THE FORESTRY SUPPORT PROGRAM (FSP) 1981-1985



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Forest Service



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Development

Washington, DC

The Forestry Support Program (FSP) is managed jointly by the U.S. Department of Agriculture's Forest Service (FS) and Office of International Cooperation and Development (OICD) with funds provided by the Agency for International Development's (AID) Bureau of Science and Technology (S&T) through its Office of Forestry, Environment, and Natural Resources (FNR).

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Preface

This progress report primarily examines the objectives, organization, and achievements of the Forestry Support Program (FSP) from the time it started in March 1981 until September 1985. Because FSP's activities during its first 2 years of operation were discussed in an earlier review by the Society of American Foresters, this report emphasizes activities from 1983 through 1985, a period in which the program was past the difficult startup phase and fully operational.

This document is, foremost, a report to the U.S. Agency for International Development (AID) about the accomplishments FSP has made in collaboration with the Department of Agriculture's Office of International Cooperation and Development (OICD). But in a broader sense, this report also provides the international forestry community with general information about FSP and AID's own worldwide forestry activities. The efforts of other countries and the various sectors of the international forestry community also are noted where linkages exist with FSP.

In accordance with eight basic FSP objectives, this report is organized into the following chapters: technical consultations; roster development and referrals; university liaison and institutional profiles; forestry program studies and technical reference services; forestry training; technical support to research; forestry-private enterprise initiative; and forestry-agriculture initiative. The implementation of these objectives contributes directly towards AID's Forestry Policy and Programs published in 1983 and AID's Forestry Sector Strategy of 1984.

List of Acronyms

AFR	AID Bureau for Africa
AID	Agency for International Development
ASEAN	Association of Southeast Asian Nations
CARE	Cooperation for American Relief Everywhere
CATIE	Tropical Center for Agricultural Research and Training
CDSS	Country Development Strategy Statement
C'LLSS	Interstate Committee for Drought Relief in the Sahel (translated)
DAF	Development Assistance Funds
ESA	East and Southern Africa (REDSO - Nairobi)
ESF	Economic Support Funds
FAO	Food and Agricultural Organization of the United Nations
FFP	Food for Peace
F/FRED	Forestry/Fuelwood Research and Development Project
FNR	AID Office of Forestry, Environment and Natural Resources
FRM	AID's Forest Resources Management Project (No. 936-5519)
FS	USDA Forest Service
FSP	Forestry Support Program
FVA	AID Bureau for Food and Voluntary Assistance
FWS	Fish and Wildlife Service
IIED	International Institute for Environment and Development
ISTF	International Society of Tropical Foresters
IUFRO	International Union of Forestry Research Organizations
LAC	AID Bureau for Latin America and the Caribbean
LDC's	Less Developed Countries
NAPFSC	National Association of Professional Forestry Schools and Colleges
NPS	National Park Service
NRDC	The Natural Resources Defense Council
OICD	USDA Office of International Cooperation and Development
OECD	Organization for Economic Cooperation and Development
OFDA	Office of Foreign Disaster Assistance
PASA	Participating Agency Service Agreement
PID	Project Identification Document
PIO/P	Project Implementation Order/Participant Training
PIO/T	Project Implementation Order/Technical Services
PP	Project Paper
PRE	AID Bureau for Private Enterprise
REDSO	Regional Economic Development Services Office
ROCAP	Regional Office for Central America Programs (Guatemala)
RSSA	Resource Support Services Agreement
SAF	Society of American Foresters
SCFER	Southeastern Center for Forest Economics Research
SDPT	Sahel Development Planning Team
SECID	Southeast Consortium for International Development
S&T	AID Bureau for Science and Technology
TNC	The Nature Conservancy International Program
UNDP	United Nations Development Program
USAID	United States Agency for International Development (also referred to as AID)
USDA	United States Department of Agriculture
WCA	West and Central Africa (REDSO--Abijan)

Chapter 1

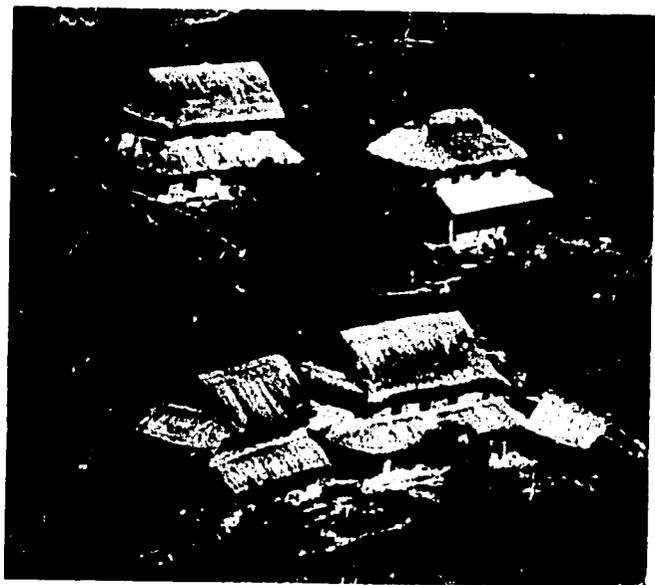
Background, Organization, and Objectives of the Forestry Support Program

AID's Establishment of the Forestry Support Program

As the lead agency for administering U.S. foreign aid, the Agency for International Development (AID) is currently supporting most of this Nation's international forestry work.

AID's predecessor agencies were significantly involved during the 1950's and 1960's in providing forestry assistance to developing countries. The United States provided assistance along traditional forestry lines by conducting timber volume inventories and constructing wood processing facilities; and by strengthening forestry schools, forestry research institutions, and government forest management organizations. These assistance programs required a cadre of several dozen U.S. forestry advisors who resided within the countries receiving assistance during this period. These U.S. forestry advisors were either employees of AID's predecessor agencies, serving as foreign service officers overseas, or they were consultants serving under the auspices of the foreign aid program.

By the early 1970's, however, the United States had shifted its foreign aid emphasis from the capital intensive and economic development programs that had tended to dominate earlier assistance efforts to programs designed to provide direct benefits to the rural poor of developing countries. As a result, U.S. forestry development assistance was greatly curtailed during the late 1960's and was effectively eliminated as a recognized and significant aspect of U.S. foreign assistance. Thereafter, forestry institutions of the U.S. Government and university community became disassociated from the U.S. foreign aid program, and specialized forestry staff positions associated with foreign aid were abolished.



AID's forestry program is oriented toward rural communities.

Stimulated by such events as the extended drought in the Sahel region of Africa, by changing petroleum market conditions in the early 1970's, and by increased global awareness of environmental degradation, AID began to recognize the importance of trees and other woody vegetation in sustaining resource productivity and in meeting the basic needs of the rural poor in developing countries.

Without significant numbers of foresters on its own staff, AID, from 1973 through 1978, nonetheless began to develop and implement an increasing number of forestry-related projects that responded to meeting energy needs, environmental degradation, and natural resource conservation requirements within broader agricultural, energy, and rural development assistance programs. AID developed fuelwood, dune stabilization, shelterbelt, watershed management, and community woodlot projects that primarily focused on meeting the needs of poor rural people living on marginal cropland and rangeland.



A woman and her son gather pine twigs on a plantation in Nepal. In developing countries, 70 to 90 percent of the rural population use wood for fuel.

By 1979, AID more formally recognized forestry-related development assistance as a valid aspect of U.S. foreign assistance and again began devoting modest staff resources to forestry. However, AID could not keep pace with the size and scope of its mounting international forestry efforts. In addition, it was becoming increasingly apparent both within and outside AID that the Agency would need to harness the resources and expertise of the broader U.S. and international forestry community for its programs to be fully effective. In light of AID's needs, its Bureau of Science and Technology approached the Office of International Cooperation and Development (OICD) within the U.S. Department of Agriculture (USDA) with the idea of establishing a staff in the Forest Service to meet these needs. With its wealth of forestry experience and its extensive ties with government, the private sector, international organizations, and universities, the Forest Service seemed the natural choice for this undertaking. In June 1980, AID's Forest Resources Management Project (No. 936-5519), which is authorized through 1989 for \$19.8 million, was established.

The Forestry Support Program (FSP), which began operation in March 1981, is funded under a Resource Support Services Agreement (RSSA) from AID's Office of Forestry, Environment, and Natural Resources in the Bureau for Science and Technology through the Forest Resources Management Project. The FSP is managed jointly by the Forest Service and the Office of International Cooperation and Development (OICD), both within the U.S. Department of Agriculture.

AID's Forest Resources Management Project also funds the Peace Corps' collaborative activities with AID in forestry and natural resources, and the Regional Forestry Advisors (currently stationed in Nairobi, Kenya; in San Jose, Costa Rica; and earlier in Jakarta, Indonesia). Figure 1-1 shows the anticipated distribution of funding for AID's Forest Resources Management Project (including FSP funding) for 1980 through 1989.

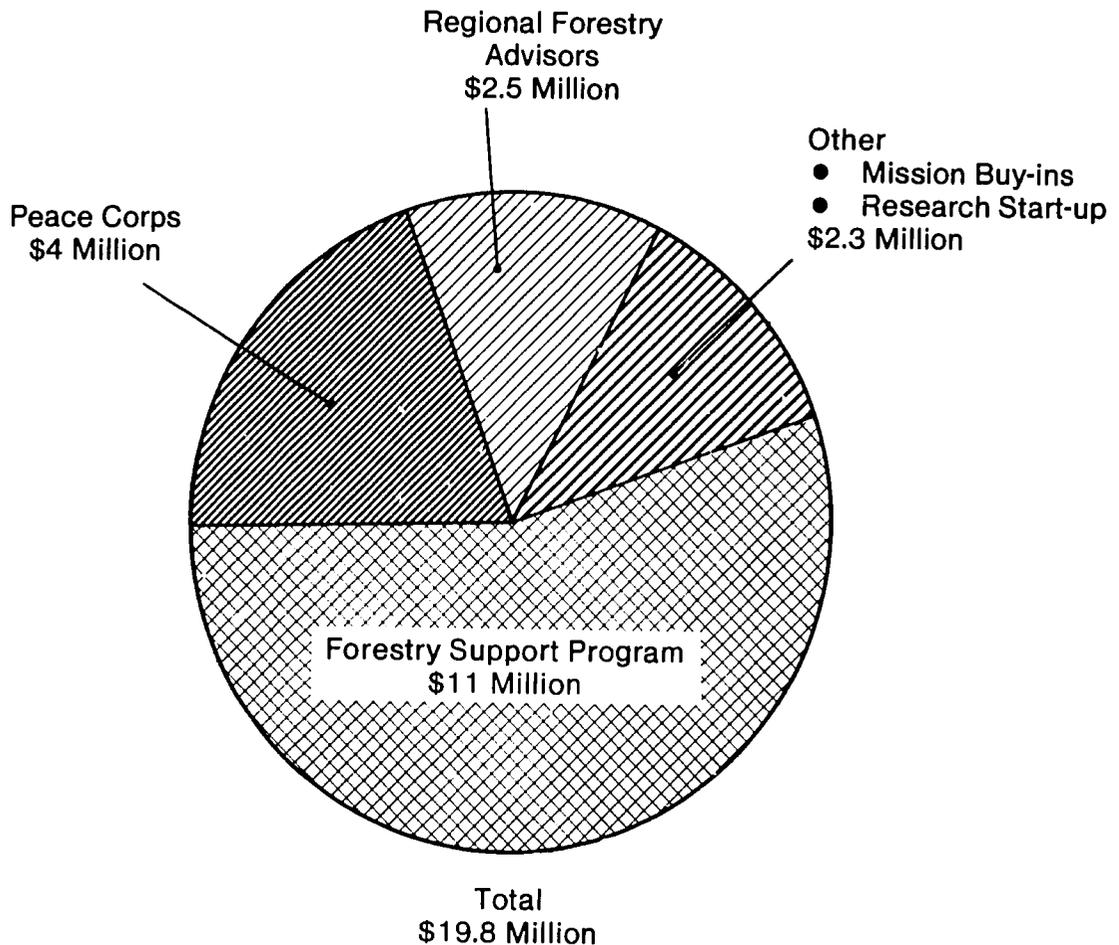
Objectives of the Forestry Support Program

FSP provides AID with technical assistance in identifying, designing, managing, and evaluating field projects, as well as in developing overall strategies in forestry and related areas. FSP also helps AID identify qualified staff and advisors for overseas assignments.

Review of FSP's compliance with the objectives that AID has set forth forms the basis of the remaining chapters of this report. The original program objectives established in 1981¹ continue today and are as follows:

¹Unless otherwise noted, all years cited in this report are fiscal years (October 1 through September 30).

Figure 1-1. AID's Forest Resources Management Project: Anticipated Distribution of Resources, 1980-1989



- Technical Consultations. "To provide AID's regional bureaus, regional offices, and field missions with technical advice on tropical forestry and natural resources, including advice on the design of projects."
- University Liaison and Institutional Profiles. "To identify and evaluate qualified forestry institutions that can take part in AID forestry projects."
- Roster Development and Referrals. "To manage a roster of forestry and natural resources experts that is used to identify qualified personnel for long- and short-term AID assignments."
- Forestry Program Studies and Technical Reference Services. "To provide technical forestry information to AID and Peace Corps staff and to facilitate the exchange of technical information among personnel working in these areas--especially personnel working overseas."

- Forestry Training. "To organize forestry training courses, develop training materials, advise forestry schools on curriculum design, and help AID design forestry projects with ample provisions for training."

As a result of needs that AID recognized subsequent to the establishment of the FSP, and in response to recommendations made by an independent review in 1982 by the Society of American Foresters, the program was amended in July 1983 to add the following three objectives:

- Technical Support to Research. "To provide AID with technical support in forestry research."
- Forestry-Private Enterprise Initiative. "To stimulate private forestry enterprise by identifying and developing markets for the forest products of AID-recipient countries."
- Forestry-Agriculture Initiative. "To promote linkages between agriculture and forestry in the tropics as part of



Trees and cows are compatible under managed conditions such as this pasture in Latin America. The FSP promotes such linkages between forestry and agriculture.

an effort to improve the effectiveness of AID's projects and land management practices."

In 1985, AID had an estimated annual expenditure of about \$132 million dedicated to 265 forestry and related environmental and natural resources projects in some 40 countries in Africa, Asia, Latin America, and the Caribbean. With an emphasis on "people-oriented" activities closely linked with agricultural programs, these projects fulfill AID's overall goal of providing bilateral assistance to meet basic human needs in such areas as food production and associated natural resources management. Forestry is an integral part of these activities, and the FSP, in turn, is helping AID effectively meet these needs.

Evolution of the FSP Staff

The FSP began with a staff of seven professional foresters--four of them located in Washington, D.C., and three Regional Forestry Advisors located overseas.² The Washington staff originally consisted of a Program Manager and three Regional Coordinators closely supporting the work of AID Regional bureaus and missions in Africa, Asia, and Latin America.

The overseas counterparts for the three Washington-based regional coordinators were AID's Regional Forestry Advisors based in Kenya, Costa Rica, and Indonesia. The Regional Forestry Advisor in Indonesia was based in Jakarta for 3 years beginning in 1982, but this position was discontinued in January 1985.

²Although the Regional Forestry Advisors are affiliated with and work closely with the FSP, these positions are filled by contract personnel who are responsible directly to the AID field offices to which they are assigned.

Mechanisms for continuation of the Latin America and Caribbean and Africa advisor positions beyond the initial 4 years of funding under the Forest Resources Management Project are under active review by the Regional Office for Central America Programs (ROCAP) and the Regional Economic Development Services Office--East and Southern Africa (REDSO-ESA). Working closely with their U.S.-based counterparts, the overseas advisors provide technical advice, guidance, and support to AID missions and host country personnel in their respective regions.

From 1983 to 1985, six new professional forestry positions were added to the FSP. These new staff positions reflect the evolution of the program to address specific technical issues such as training, private enterprise, and agriculture as it relates to forestry. To address the growing need for forestry training and related educational concerns in developing countries, a Training Coordinator and an International Forestry Seminar Director were added to the program. In addition, as part of a growing policy of emphasizing private-sector solutions to international forestry problems, the FSP created positions for a Forestry Enterprise Coordinator and a Market Development Specialist. Additional administrative and managerial assistance was brought to FSP through the recruitment of a Special Projects Coordinator. Finally, a Forestry-Agriculture Coordinator is under recruitment for late 1985 to provide agricultural expertise combined with a forestry perspective. During 1986, FSP expects to add a Forestry-Food Coordinator to work with AID's Food and Voluntary Assistance Bureau on forestry matters. Figure 1-2 is a current organization chart of the FSP. Appendix A contains a brief description of the various FSP professional forestry positions, and Appendix B provides profiles of current FSP profes-

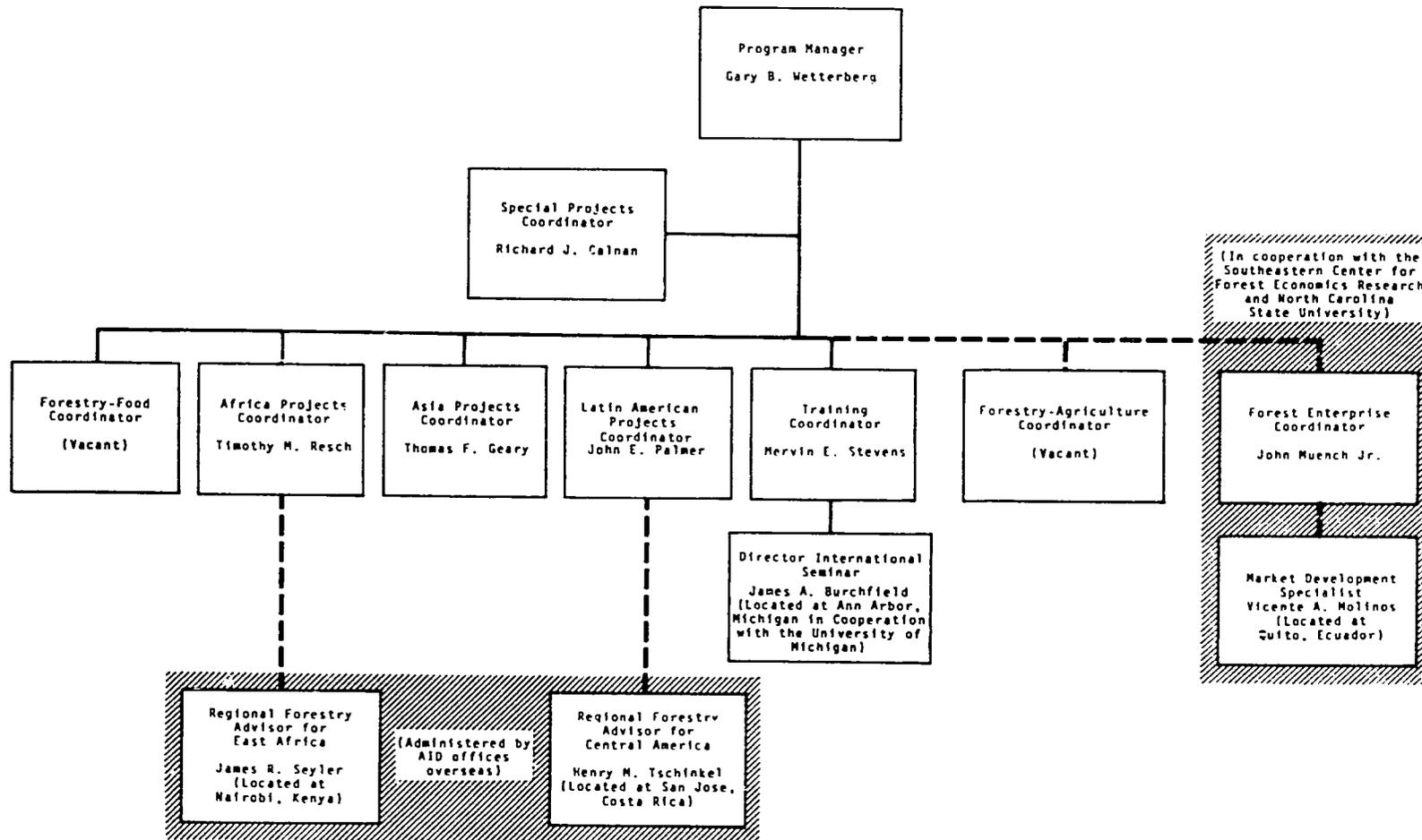
sional forestry staff and the associated AID Regional Forestry Advisors. In addition, the Washington Office includes two secretaries and a clerk typist.

The FSP is made up of seasoned professional foresters with extensive field and research experience, both domestic and foreign, and in both the public and private sectors. Several members have graduate degrees and most have worked on long-term forestry assignments in developing countries. The overseas experience continues to grow with the U.S. staff traveling regularly on consultations abroad. Collectively, the FSP staff can speak French, Spanish, German, Portuguese, Nepali, Arabic, and Swedish in addition to English.

The staff's breadth of experience is complemented by the diverse backgrounds of the many forestry advisors and other experts that the FSP retains (or refers to AID offices) to undertake projects. The result is a program with the balance of experience, education, and perspectives necessary to work effectively as a "broker" of international forestry resources and expertise to address problems in forestry and related areas.

AID missions operate with a high degree of independence under a strongly decentralized management structure. Consequently, the FSP staff has a valuable "inside-outsider's" perspective that enables FSP staff members to exchange knowledge gained in one AID mission with personnel working in another AID mission who may be engaged in similar activities. Frequent travel within and between regions for consultations and other activities also helps keep both domestic- and foreign-based staff conversant with the needs, conditions, and--equally important--the people working in these areas.

Figure 1-2. Organization Chart of the FSP Professional Forestry Staff



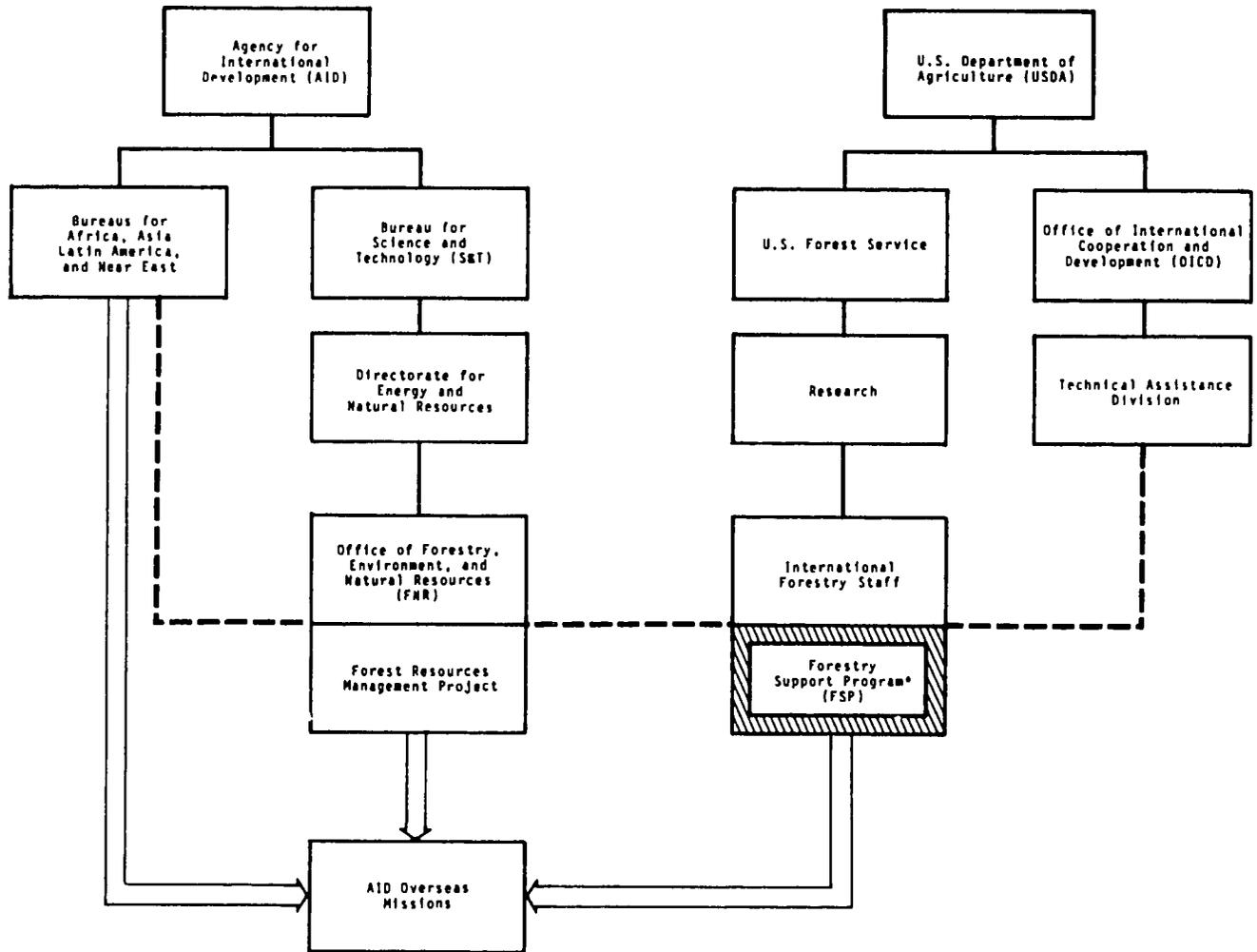
Organizational Linkages

While FSP is directly under the responsibility of the Director of the International Forestry Staff within the Forest Service, the program is organized as a cooperative effort between the funding agency (AID), the technical supporting agency (the USDA Forest Service), and the administrative agency (USDA Office of International Cooperation and Development.) Figure 1-3 shows FSP's principal organizational linkages.

The managers of the relevant offices from each of these three organizations meet

frequently on both a formal and informal basis to discuss specific activities, as well as the management, budget, and direction of the program. Moreover, the FSP Project Manager meets formally at least once each week with his AID counterparts to monitor and evaluate program activities. The staff also is in frequent contact with those institutions that are currently implementing FSP cooperative agreements (such as the Southeastern Center for Forest Economic Research, the Organization of Tropical Studies, the University of Michigan, and CARE).

Figure 1.3. Organizational Linkages of the Forestry Support Program



* The FSP is managed jointly by the USDA's Forest Service and Office of International Cooperation and Development with funds provided by AID's Bureau for Science and Technology.

Chapter 2 Technical Consultations

Analysis of Onsite Assistance

Providing AID's regional bureaus, regional offices, and field missions with technical advice on tropical forestry and natural resources, including advice on the design of projects, is the first objective that AID established for the Forestry Support Program. Consistent with this objective, FSP staff and other technical experts that it uses travel regularly on consultations to AID recipient countries throughout the tropical world, providing specialized technical advice and expertise. The technical skills most commonly requested are plantation practices, nursery establishment, arid zone forestry, agroforestry, watershed and range management, economics, and training. Occasionally, there are requests for ecologists, pathologists, remote sensing experts, and environmental interpretation specialists. There are few requests for experience in large-scale forest industries, outdoor recreation, or wildlife management. But this mix of skills requested may change, particularly as AID private enterprise projects become more involved with forestry, and as AID focuses efforts on biological diversity issues. Most assistance is provided in support of AID project design and evaluation. The FSP also frequently assists in conducting workshops, conferences, and symposiums.

The FSP provides both direct and indirect assistance by referring technical experts to AID in various ways: (1) by making its own staff available for overseas duty travel, (2) by securing in-kind contributions of staff time from the Forest Service, (3) by procuring the services of outside advisors through the Office of International Cooperation and Development, (4) by arranging for personnel from other USDA agencies, and (5) by identifying potential candidates to work directly with AID missions overseas. Roughly 90 percent of AID technical



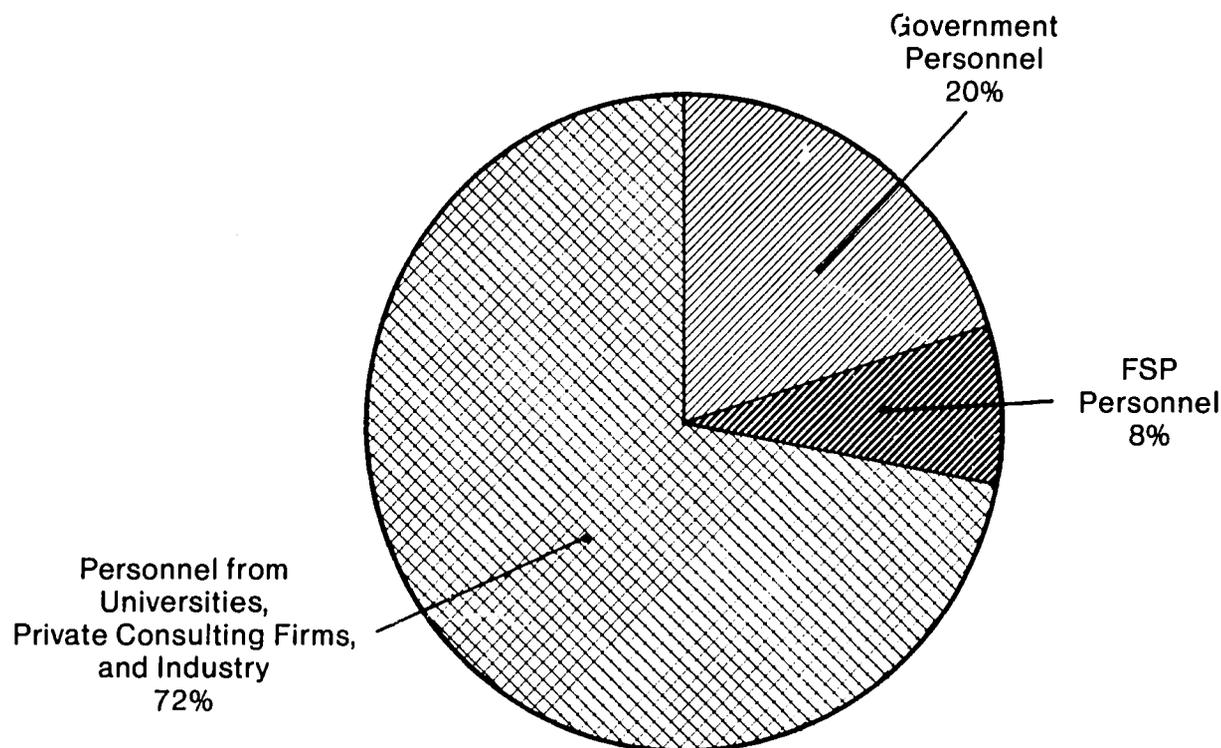
Technical consultations are a major FSP activity.

assistance requirements are contracted by AID missions and offices, and by host governments, with FSP involvement being limited to identifying qualified potential candidates for technical advisory work.

The FSP-supplied expert referrals to AID come from many sources. In 1983-85 the employment affiliations of advisor candidates were grouped as follows: individuals and contractors from universities, private consulting firms, and industry, 72 percent; government agencies, 20 percent; and FSP personnel, 8 percent. (See Figure 2-1.)

To secure these technical services, AID and AID contractors make requests to FSP through the appropriate regional bureaus or through AID's Bureau for Science and Technology. Every request for services in forestry and natural resources is honored if it falls under the FSP program objectives and if funding is available. While some of these requests come far in advance, others sometimes require assistance within 2 weeks. To fill these requests quickly and to ensure that the best available candidates are selected for consultations, FSP uses its roster of forestry expertise, which has proved

Figure 2-1. Distribution of Employment Affiliation of Expert Referrals Provided by FSP to AID, 1983-1985



critical to the program's success. (See Chapter 3 for a more detailed discussion of the FSP roster.)

Technical assistance assignments are generally of short duration. For instance, the average consultation during 1984 and 1985 lasted about 2 weeks, with some as short as 1 week and others as long as 4 months. Typically, these consultations focus on the needs of one particular country, although occasionally they include visits to as many as four or five countries. The average consultation requires only one person, but in special cases, such as AID project design, as many as five or more people are needed.

Highlights of Successful Consultations

The following are selected examples that illustrate the types of technical consultations the FSP provides. A broad summary of the geographical distribution of technical consultations provided by the FSP is shown in Figures 2-2, 2-3, and 2-4. Moreover, Appendix D provides a complete list of the technical consultations partially or completely funded by the FSP between 1983 and 1985. Appendix D does not include the large amount of technical assistance provided by personnel FSP identified whose activities were funded directly by AID missions or other sources.

Figure 2-2. Asia and Near East Geographical Distribution of Technical Consultations Provided by the FSP, 1983-1985

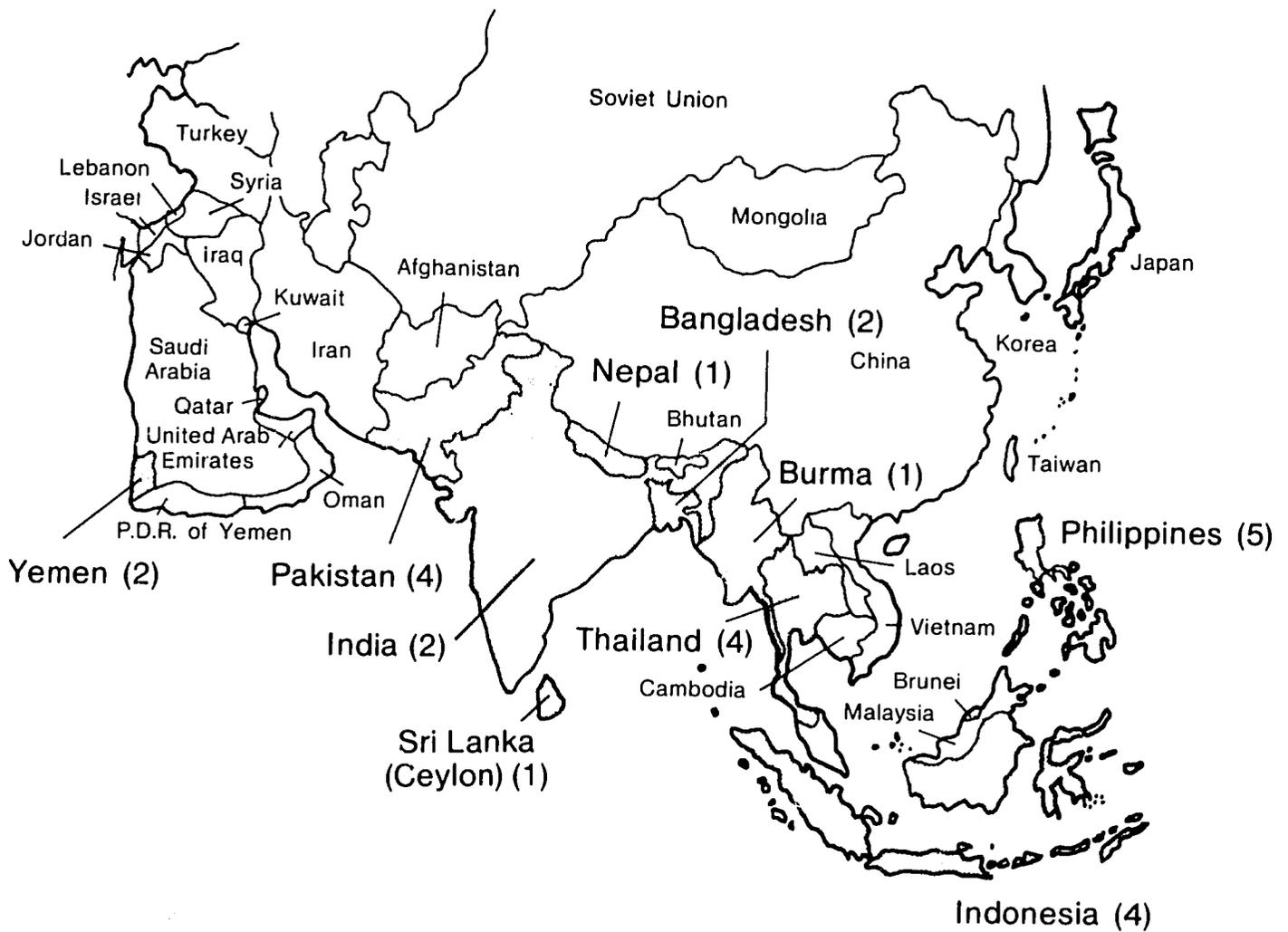


Figure 2-3. Africa Geographical Distribution of Technical Consultations Provided by the FSP, 1983-1985



Figure 2-4. Latin America and Caribbean Geographical Distribution of Technical Consultations Provided by the FSP, 1983-1985



The FSP's assistance to the design and implementation of the Ecuador Forestry Sector Development Project is a good example of FSP's support to AID in Latin America and the Caribbean. In 1981, the FSP Latin America Coordinator, along with AID Washington staff and an outside contractor, helped the AID Mission and the Government of Ecuador redraft the mission's Project Identification Document (PID) so that it focused on attainable and relevant forestry objectives in plantation management, humid tropical silviculture, and watershed planning. The FSP subsequently assisted AID in identifying and recruiting a team of eight forestry and natural resource specialists to help write the project paper, which was approved in 1982. The FSP then assisted AID in recruiting a long-term resident forestry advisor to help the Ecuadorian Government execute the project. During 1983 to 1985, the FSP provided technical assistance for project implementation in the form of information and short-term advisors, and it is currently working with the Office of International Cooperation and Development in securing all the technical assistance that will be needed over the 5-year life of the project.

Other examples of FSP assistance in the Latin America Caribbean Region that resulted in successfully designed and approved forestry projects are found in the Haiti Agroforestry Outreach Project, the Dominican Republic Forestry Management Project, and the Central America Regional Tropical Watershed Management Project. In the latter, the FSP Training Coordinator and four other FSP-identified advisors helped AID's Regional Office for Central America and Panama (ROCAP) design and draft the project paper. The resultant activity provides assistance to the Tropical Center for Agricultural Research and Training (CATIE) to strengthen watershed management, planning, and implementation capacities of national and regional organizations in Central America

and Panama through training, advisory, and support services. This is an important step toward improving the institutional capacity in Central America and Panama for managing the region's watershed resources.

A major FSP accomplishment in the Asia Region was assisting AID in redesigning the Association of Southeast Asian Countries' (ASEAN) Watershed Project. Previously, the project had been disapproved because of inappropriate design, but in 1983, the FSP Asia Coordinator, the Training Coordinator, and the Regional Forestry Advisor for Asia helped AID redraft the project paper. The project was subsequently approved and is now beginning to develop a watershed management research network throughout the ASEAN countries.

FSP also has made direct contributions to the evaluation of AID projects. For example, the FSP Africa Coordinator evaluated the technical accomplishments of AID's Senegal Fuelwood Production Project and, along with other team members, recommended against implementing its second phase. The results of that evaluation have caused AID to look more closely at techniques used to establish tree plantations throughout the Sahel region and to place greater importance than before on the role of natural savanna forests and individual private agroforestry approaches to meet the fuelwood needs of rural people.

Additional technical consultations are highlighted in Chapter 6, Forestry Training and in Chapter 7, Technical Support to Research.

Outlook

For a number of reasons, AID missions and bureaus are increasing their demand for the FSP's services in the form of both expert advisor referrals and direct



Besides preventing erosion, windbreaks can increase food production. These rows of 10-year-old Neem trees in Niger's Majjia Valley have increased the millet harvest in this field by 25 percent. As part of its consultations, the FSP cosponsored an evaluation of this joint CARE/Peace Corps/AID project.

advisory consultations. First, as a result of FSP's success in such referrals and consultations, FSP is becoming known as a dependable source of technical advice in areas ranging from project conceptualization, through implementation

and, increasingly, project evaluation. Second, the costs of such services are often shared by FSP, thus reducing costs to the missions or bureaus. Third, as AID adds to its forestry and natural resources staff within the field missions, there is an increasing awareness of forestry problems and opportunities. Because of the growing interest in private sector development, the FSP expects to receive an increasing number of requests for people with backgrounds in small-scale logging, sawmills, veneer and plywood mills, furniture plants, and other small-scale wood industries. Likewise, additional technical consultations are anticipated that concern the interrelationships between forestry and food assistance, between forestry and agriculture, and in the general area of biological diversity. Thus, the overall demand for technical referrals and consultations is expected to continue to grow in the future. FSP continues to diversify its roster to meet this demand through access to a broad range of forestry expertise found in universities, private industry, consulting firms, and other institutions.

Chapter 3

Roster Development and Referrals

Overview

The second FSP objective calls for managing a roster of forestry and natural resource experts that is used to identify qualified personnel for long- and short-term AID assignments. In accordance with this objective, the FSP maintains such a roster, which is fully automated and kept up-to-date. It is used to help AID and other allied support organizations find qualified candidates for forestry and natural resource assignments.

For AID's purposes, the roster is essential to ensuring quality recruitment in a field in which candidates with the requisite mixture of specialized forestry skills, tropical experience, and language ability--not to mention a willingness and ability to work in another country--are in short supply. (A discussion of FSP's efforts to increase the ranks of qualified international foresters can be found in Chapter 6.) Because AID typically has only a minimal staff to guide in-country foresters, locating candidates with specialized experience is often crucial, especially in the design or initial implementation stages of a project, or where there are specific technical problems.

Using the Roster in Recruitment Activities

During the early stages of the FSP program, the FSP staff visited and corresponded with many of the major forestry schools and forestry offices; the staff also attended professional meetings and conferences in the United States to inform participants about the program and its activities, including the development of the roster. The FSP later started to publicize the roster in the Commerce Business Daily, professional journals, government agencies, and industrial trade journals. As a result of

these combined efforts to increase the roster's visibility in the forestry community, it now has become well known in international forestry circles as a good starting point for anyone seeking international forestry employment opportunities associated with AID.

The automated roster is based on information compiled from a detailed, yet simple to complete, "roster code sheet" that applicants prepare with information about their general professional profiles, including technical specialty, experience, education, language skills, overseas experience, and availability (see Figure 3-1). Applicants also provide copies of their curricula vitae or resumes, which the FSP keeps on file for reference and referrals.

To find a qualified group of applicants for a given position, the FSP enters into the automated roster system the codes that correspond to the basic qualifications that the position requires. The list processing system then sorts all candidates by these codes and generates a list of applicants who potentially meet these criteria. The FSP staff then examines their resumes and begins the more detailed phase of the referral process, reviewing qualifications (sometimes after consulting independent experts in a given area), verifying availability, and checking references.

For non-USDA employees, the FSP works closely with the Office of International Cooperation and Development (OICD) to contract services. Federal procurement regulations, revised in 1985, require available candidates identified on the roster be ranked by a technical review panel that may consist of Forest Service, AID, OICD, or other officials. Recommendations are then forwarded to the requesting AID unit, which either concurs with a recommended candidate or requests

Figure 3-1. FSP Roster Code Sheet

U.S. Department of Agriculture, Forest Service Form Approved OMB NO. 077 - 001

NAME _____

CITIZENSHIP _____

YEAR OF BIRTH _____ WORK ADDRESS _____ HOME ADDRESS _____

DAILY SALARY _____ DATE OF RESUME _____ WORK PHONE _____ HOME PHONE _____

A	B	C	D	E	F	G	H	I	J	K		
GEN	TECH	EX LEVEL	EX AREA	LANG	DEVOR	EDUC	AVAIL	PR JOB	OVERSEAS EX		EDUCATION	
				FRENCH <u>1/</u>								
				SPANISH <u>1/</u>								
				OTHER <u>2/</u>								
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COMMENTS: 1/ insert number
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PRIVACY ACT STATEMENT

Public Law 97-98, Section 1458 to the U.S. Code authorizes collection of this information. The primary use of this information is by Management to facilitate consideration for Office of International Cooperation and Development assignments, both in the United States and overseas. Information may also be made available to other Federal agencies and international organizations involved with the recruitment of agricultural experts. Furnishing the information on this form is voluntary. If USDA Forest Service uses the information furnished on this form for purposes other than indicated above, it may provide you with an additional statement reflecting those purposes.

SIGNATURE (Sign the form in ink. A typed signature will NOT be accepted.) _____ DATE COMPLETED _____

Please send this form, with a resume or SF-171 to the following address:

Forestry Support Program, Room 1208 RPE, P.O. Box 2417, Washington, D.C. 20013 Tel. (703) 235-2432

further evaluation. OICD then handles all procurement of services to support the activity.

AID makes extensive use of the FSP's roster referral services. From 1983 through 1985, the FSP provided referrals in response to an estimated 200 requests, or about two requests per week. As a rule, the FSP provides referral services only to those organizations that are directly engaged in AID-funded work. This is consistent with both the FSP policy and Privacy Act (P.L. 97-98) restrictions on using the information from the roster for anything other than its original intent of helping AID recruitment. Indeed, the FSP is careful to protect the privacy of those on the roster by keeping its files securely locked and accessible only to the FSP staff.

While the roster is managed primarily for AID's use, the FSP will sometimes offer to help fill an especially difficult position for cooperating international development institutions such as the World Bank, the Inter-American Development Bank, the Organization of American States, and the Food and Agriculture Organization of the United Nations. In these cases, the FSP usually sends job announcements to qualified candidates identified from the roster, suggesting that, if interested, they contact the sponsoring agency directly. In rare cases, the candidate's name and address are sent directly to a requesting agency, but only with the candidate's permission. Each year, the FSP makes about 10 to 12 such recommendations. The FSP roster also can be tapped for universities, private firms, or other organizations that hold AID contracts or grants when requested by either the pertinent AID mission or one of AID's Washington bureaus.

The Development of the Roster

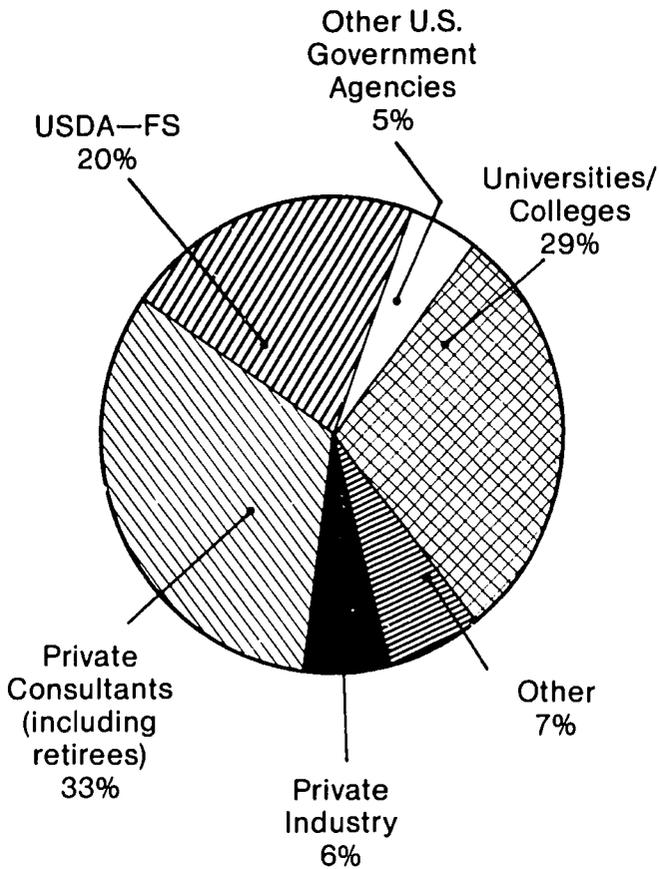
The roster has grown steadily since it was first established in 1981. At the end of 1983, the roster contained 1,586 experts, and by September 1985 it included some 2,500 names.

The professional forestry community is well represented in the roster. In 1985, the largest grouping of roster candidates were private consultants, including retirees. Other notable groups included forestry professionals from universities and colleges, U.S. Government agencies--especially the Forest Service--and private industry. The affiliation groupings are summarized in Figure 3-2.

The FSP has been successful in its efforts to encourage highly experienced, senior-level professionals to add their names to the roster. Of the 2,500 experts now on the roster, about 40 percent have experience equivalent to that of a GS-13 or full professor. The educational breakdown of roster applicants (Figure 3-3) shows that more than three-fourths have a masters or doctorate degree. About 5 percent have associate degrees, no degrees, or diplomas from schools in foreign countries whose curricula are not easily described in terms comparable to curricula in the United States.

More than 80 percent of the total number of roster applicants have overseas development experience, predominantly with Peace Corps, AID, and the Food and Agriculture Organization (FAO) of the United Nations. A number of applicants have a mixture of experience associated with the World Bank or a similar organization, consulting firms, country contractors, or private voluntary organizations. Although about 40 percent have worked in

Figure 3-2. Affiliation Groupings of the FSP Roster Applicants



Latin America, the foreign experience is well distributed globally. A precise breakdown by region and type of experience is difficult since the categories are sometimes not mutually exclusive; some roster applicants have worked in more than one region or with more than one organization. Figures 3-4 and 3-5, however, show a close approximation in the status of the current roster applicants.

The Maintenance of the Roster

For the roster to be useful, it must be kept current. Thus, a major FSP task in maintaining the roster is to remain in

contact with roster candidates and to periodically bring it up to date. In 1983, the FSP staff began contacting all applicants with whom little substantive contact had been made during the previous year and a half. The FSP asked them to update their profiles and provide a current resume. At that time, the FSP also began a major review and reorganization of the resume files. The FSP successfully completed these tasks by January 1984 and now conducts them yearly, sending all roster candidates a letter asking them to update their files if they wish to remain on the roster. When no response is forthcoming, the files are purged.

Figure 3-3. Educational Breakdown of the FSP Roster Applicants

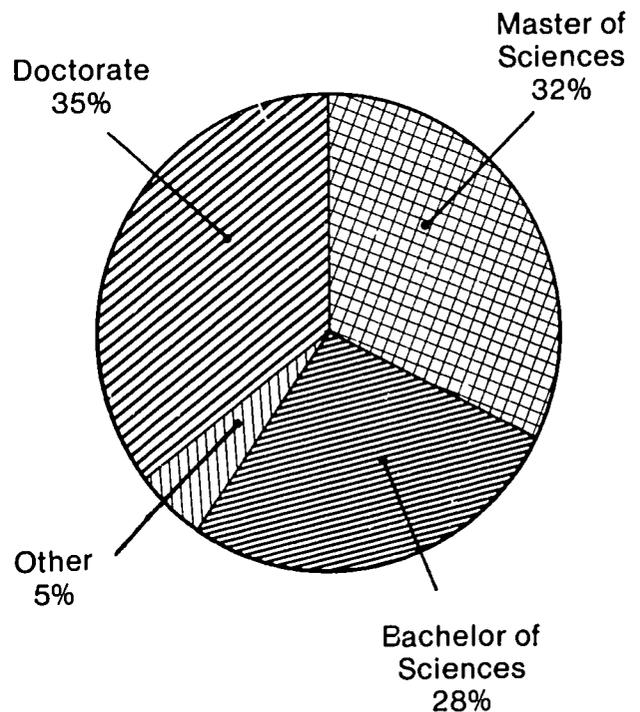
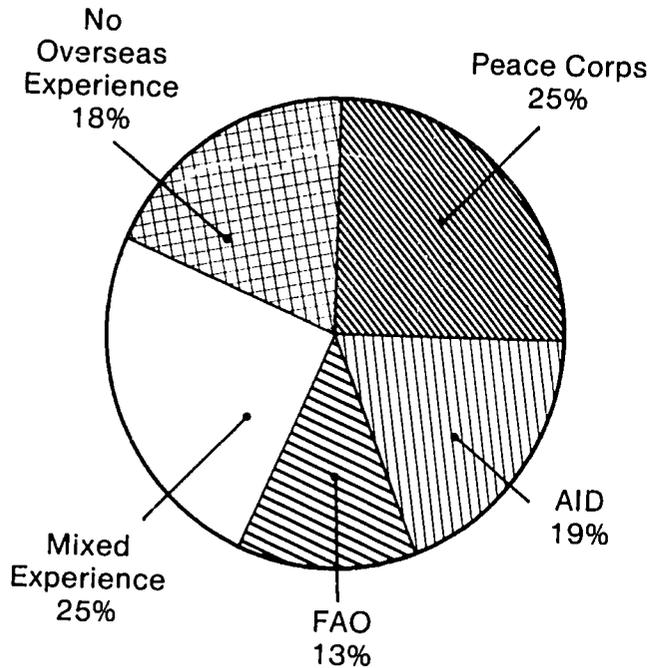


Figure 3-4. Forestry Support Program Roster Applicants' Types of Overseas Experience

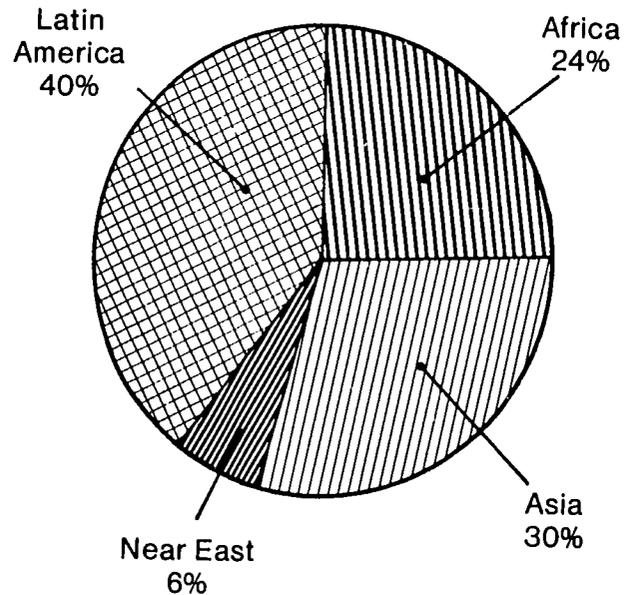


The roster has served as a model to other organizations seeking qualified technical personnel for overseas assignments. The FSP has demonstrated the roster to such organizations as the Department of Agriculture's Cooperative Extension Service and Office of International Cooperation and Development, the Society of American Foresters, the International Society of Tropical Foresters, the U.S. Fish and Wildlife Service, several private consulting firms, and numerous private voluntary organizations. The FSP also has explained the roster organization and management to the International Institute for Environment and Development, which implements AID's "Environmental Planning and Management Project" and has developed a roster of its own based on the FSP model.

Outlook

The roster continues to grow, both in terms of the number and quality of applicants. In 1985, the roster was being transferred from a word processing system on which it was originally established to a personal computer. When operational, this will enable speedier searches and increased capability to handle a variety of search criteria. While the number of names on the roster should exceed 2,500 by the end of 1985 and 3,000 by the end of 1986, the primary emphasis will continue to be to maintain pertinent and timely information on each qualified candidate.

Figure 3-5. Forestry Support Program Roster Applicants' Geographical Distribution of Overseas Experience



Chapter 4

University Liaison and Institutional Profiles

Overview

The third FSP objective is to identify and evaluate qualified forestry institutions that can take part in AID forestry projects. In response to this objective, FSP, from the outset of the program, has been working to establish strong ties with the forestry community in an effort to help AID bring its full resources and expertise to bear on AID forestry efforts. This has been part of a multifaceted strategy to improve forestry training and education both in the United States and overseas. It also has been part of an effort to encourage young foresters to consider international careers in what is still a small and highly specialized community. In a broader sense, however, it has been part of an effort to use the expertise and resources of the forestry community to provide needed services for AID recipient countries and to help guide planning for new projects. This is being accomplished informally through meetings and discussions and--as of 1985--formally through three cooperative agreements with forestry institutions.

To develop professional and institutional linkages, an effort has been made to systematically inventory the resources and personnel available in the university sector. This ongoing inventory basically consists of university liaison and institutional profiles, which are described in the following sections. A brief summary of other FSP liaison activities also is presented.

University Liaison

One of the FSP's main activities during 1981 and 1982 was informing the university forestry community about the FSP, AID's growing forestry portfolio, and the existence of the personnel roster. At the same time, FSP solicited ideas about how to involve the university com-



Participants at an ASEAN seminar in Washington, D.C., in June 1985 listen to a lecture on the management of watershed research.

munity in AID international forestry activities. The FSP staff started visiting many of the major forestry schools in the United States, and by 1985, had met with officials on the campuses of more than 30 of those schools accredited by the Society of American Foresters (SAF) as well as with officials in many nonaccredited schools. Additionally, FSP staff members have made a point of meeting frequently with faculty and students in forums such as national conventions and international congresses to discuss international forestry employment, research, and study opportunities.

Recent efforts have focused on establishing more formalized channels to bring the resources of the academic community to bear on international forestry activities. In July 1983, the FSP took an important step toward strengthening the U.S. forestry university community's awareness in forestry development overseas by establishing direct liaison with the then ad hoc International Affairs Committee of the National Association of Professional Forestry Schools and Colleges (NAPFSC). The FSP brought this five-member committee to Washington, D.C., for 2 days of meetings with AID, OICD, and the Forest Service to discuss how the forestry schools could support AID's work. The report that resulted

from that meeting, "Collaboration Between USAID and U.S. Forestry Schools," recommended that the schools actively participate in AID's forestry training activities, in forestry research in host countries, and in the design and implementation of AID forestry projects, especially those involving education, training, research, and extension activities.

In 1984, partly in response to this report, FSP instituted the following three formal agreements with academic forestry institutions: (1) the Organization for Tropical Studies and Duke University to develop agroforestry training materials, (2) the University of Michigan to conduct forest resource administration and management seminars, and (3) the Southeastern Center for Forest Economic Research (SCFER) and Duke University and North Carolina State University to assist with private enterprise initiatives.

Institutional Profiles

Foreign forestry students who choose to go outside their countries or regions for a forestry education frequently have difficulty finding accurate, up-to-date information about curricula in U.S. forestry schools. Information presented in a format by which the student can compare the various forestry schools also has been difficult for them to obtain.

After years of informal efforts to inform students and schools about courses and curricula, AID recognized the need for a publication that provides such academic profiles. In response to this need, FSP's institutional profiles were designed to make it easier for foreign students, and those who guide them (and indirectly for AID missions and projects), to find those educational programs in the United States that are most suited to their needs. In addition to the obvious value of the profiles to developing-

country foresters, they also are useful to domestic forestry students and others in the field. Moreover, the profiles assist AID policymakers to identify American forestry schools that might undertake AID contract work. Recognizing this, FSP has expanded these profiles beyond just universities by including information about consortia involved in international forestry activities (the Consortium for International Development, for example) and statistics on trends concerning international forestry activities at North American forestry schools, including forestry schools in Canada.

The profiles are designed to do the following:

- To match the educational needs of potential students with appropriate forestry institutions.
- To strengthen cooperative arrangements between foreign and U.S. forestry colleges and universities.
- To serve as references in developing forestry education and training activities, as well as in the design of new programs.
- To help various organizations and less developed countries upgrade their institutional capabilities through technical skills training and institutional training.

The preparation of these profiles has been a major activity. When this project first began in 1983, FSP training staff, together with an outside contractor, began systematically collecting and reviewing information about schools by requesting college catalogs and related course material from the approximately 100 institutions in the United States that provide forestry instruction at one level or another. While the contractor collected some of this information

through telephone inquiries, FSP staff also collected information during ongoing visits to the forestry faculties of various universities.

The material was collated and the profiles were completed in January 1984. The result, Profiles of U.S.A. Forestry Schools and Consortia, is a 300-page publication in a binder format that provides detailed information about 44 SAF-accredited forestry schools and 7 SAF candidate schools, as well as about 54 other schools that offer technical degrees or forestry instruction. The book also provides information about eight forestry consortia.

The response to the book has been excellent. Copies have been sent to all AID missions, and some missions have requested additional copies for their local counterparts in the country. Moreover, it has been accepted as a desk reference by the forestry schools, AID missions, and others working with forestry education. One spinoff from the profiling effort has been that International Institute for Environment and Development has decided to develop a set of similar profiles for schools that provide general natural resource programs.

Other FSP Liaison Activities

In addition to its university liaison activities, the FSP also works closely with a number of other organizations in the forestry and natural resources area, several of which are mentioned below. This highly productive liaison involves undertaking joint studies, sharing information, and attending workshops and conferences. All FSP staff members have been involved in these activities, resulting in both an increased understanding of worldwide forestry problems and in the transfer of technology.

FSP shares forestry information on project activities sponsored by the Forestry Department of the United Nation's Food and Agriculture Organization (FAO). The FSP has provided technical advice to potential employees on FAO projects and cooperated with FAO in multidonor activities, particularly international workshops of mutual interest, such as ones on watershed management training held in Kenya in 1983 for 17 African countries and in Nepal in 1985 for 12 Asian Pacific countries. FSP staff members also actively participated in FAO's 1985 Desertification Consultation in Mexico and its Forest Industry Consultation in Indonesia. Besides helping identify American expertise for FAO projects in such areas as training, land use, watershed management, and forestry development project management, FSP has helped American foresters better understand the FAO system and compete for FAO assignments by notifying them of job openings. Finally, within the USA, FSP has been a first source of contact for AID in receiving sometimes difficult-to-obtain FAO forestry documents.



The FSP works closely with other organizations in promoting sound land management practices such as this terraced site in the Himalayas.

Besides FAO, FSP has worked with the United Nations' Development Program (UNDP); its Environmental Program (UNEP); its Educational, Scientific and Cultural Organization (UNESCO); and its Industrial Development Organization (UNIDO) in exchanging forestry information and in providing funds to enable participants from less developing countries to attend workshops.

By sharing project information and experience, FSP also has established a collegial cooperative relationship with bilateral donors such as the Overseas Development Agency (ODA) of Great Britain, GTZ of the Federal Republic of Germany, the Canadian International Development Agency (CIDA), and the Japanese International Cooperation Agency (JICA). FSP also has cooperated with the World Bank and the Regional Development Banks in identifying potential consultants and in developing an informal communications network on forestry for developing countries.

Within the U.S. Government, FSP has coordinated activities with the Peace Corps, the Department of State, the Department of the Interior's National Park Service (NPS), and Fish and Wildlife Service (FWS), the U.S. Geological Survey, the Congressional Office of Technology Assessment, and the U.S. Department of Agriculture's Foreign Agriculture Service. FSP staff members have served on committees and panels and have helped write reports and prepare professional papers for representatives of U.S. Government agencies attending international forestry meetings. FSP also has been active in international forestry profes-

sional societies such as the Society of American Foresters (SAF), the International Society of Tropical Foresters (ISTF), and the International Union of Forest Research Organizations (IUFRO).

Giving guidance to private voluntary agencies on the environmental aspects of their AID-supported activities also has been part of FSP's endeavors. FSP has maintained contact with an AID-sponsored program parallel to the FSP roster, managed by the International Institute for Environment and Development (IIED) and the International Union for Conservation of Nature and Natural Resources (IUCN). FSP has also worked with the World Wildlife Fund-U.S. and initiated liaison with The Nature Conservancy International Program (TNC), the New York Botanical Garden, the Natural Resources Defense Council (NRDC), and other organizations.

Outlook

The institutional profiles are being updated in 1985 to incorporate new information from the forestry schools that may be obtained by FSP staff contacts. In addition, eventual work on a companion volume is anticipated that will profile selected foreign forestry institutions as part of a broader effort by FSP, on behalf of AID, to improve cooperative efforts in the future. Other FSP liaison with United Nations' organizations, U.S. Government agencies, multilateral development banks, bilateral donors, international forestry professional societies, and private voluntary organizations is expected to continue at a high level by all FSP staff members.

Chapter 5

Forestry Program Studies and Technical Reference Services

The fourth FSP objective calls for the FSP to provide technical forestry information to AID and Peace Corps staff and to facilitate the exchange of technical information among personnel working in this field--especially personnel working overseas. These efforts are discussed in the following sections on forestry program studies and technical reference services. The FSP exchanges technical forestry information among AID and Peace Corps staff through several other services also described in this chapter.

Forestry Program Studies

In accordance with the Research Support Services Agreement (RSSA) with AID, the FSP conducts studies of special relevance to AID's forestry and natural resource programs, as well as studies that may provide insight into programmatic direction for new areas of development assistance. The FSP also monitors the overall funding level and the scope of the various forestry projects within AID's portfolio. It consolidates the results of these reviews into status reports that are distributed throughout AID. These reports not only help policymakers monitor AID activities, but also help make the forestry community in the United States and overseas more aware of AID's collective resources and experience.

Since 1983, FSP has undertaken the following forestry program studies:

- Public Sector Forestry Projects Funded by the U.S. Agency for International Development. This 20-page study consists of an overview of AID forestry projects in the AID regions (Africa, Asia and the Near East, and Latin America and the Caribbean) followed by tables that list projects in each region. The report includes project title, number, and description, as well as information about the project status, project period, and costs (both

total project and forestry component costs).

- Research, Training, and Technical Assistance Components of AID Forestry Projects. Expanding on the public-sector forestry study described above, this draft report identifies research, training, and technical assistance components of AID's forestry projects. This study also is an outgrowth of AID's interest in keeping its staff up-to-date on the full range of the Agency's developmental efforts throughout the world.
- The AID Forestry Community. This report provides an overview of the AID forestry staff, which is supplemented by tables giving the name, title, location, office affiliation, and responsibility of each person in the AID forestry community, including subcontractors.
- Forestry-Related Implications of AID's Private Enterprise Initiative. This 17-page paper analyzes implications related to the timing of AID private enterprise initiatives, as well as the effects that various types of assistance, including credit projects, can have on forestry activities. The paper also provides funding levels of various projects and identifies some of the opportunities to stimulate international forestry development through AID's private enterprise initiatives.
- Food Aid and Forestry. This 87-page report describes the scope of the Agricultural Trade Development and Assistance Act (P.L. 480) and provides detailed descriptions of forestry projects funded under the act. The study includes extensive appendixes that list countries involved in these activities and provides specific information about the name, location, and nature of these projects, along

with information about their status and funding levels.

- Assessment of USAID's Forestry Activities in Institutional Mechanisms, Private Enterprise and Training, Education, and Research. This 46-page study by the Society of American Foresters describes the mechanisms by which AID interacts with national and international organizations in the process of implementing AID programs. The study considers existing and potential private enterprise activities related to AID's forestry programs, and covers existing and potential areas of cooperation between AID and U.S. educational institutions.
- Program Opportunities in Agriculture/Forestry. This evaluation of forestry-agriculture relationships, which was completed in January 1985, is designed to articulate the strategy by which AID may develop a comprehensive agriculture/forestry assistance program.
- An Assessment of the U.S. Agency for International Development's Forestry Program: Needs and Opportunities. This report was prepared by a select high-level panel of experts to assess AID's existing forestry program and make recommendations for future directions. The report also looks at AID's ongoing and planned forestry program strategies, as well as AID's internal and external links with other cooperating agencies and institutions. This assessment considers the role of forestry research and the strengthening of science and technology elements within the overall scope of U.S. development assistance programs.

Technical Reference Services

The FSP staff provides AID's forestry staff and consultants, especially those

working overseas, with a wide variety of technical information about forestry and related topics, as well as with periodic reports and news about program developments. These services are especially important for overseas staff as such information is often difficult to obtain or unavailable onsite in less developed countries.

Requests for technical references are handled on a systematic basis, with staff gathering the requested information and then sending it through those channels (mail, visitors, pouch) they deem to be the most efficient. Information requested has included a single publication, a translation, a bibliography, a literature search on a specific technical problem, or information on a specific tree species. Staff have obtained this information by either direct purchase or by requesting free copies. For instance, the AID Madagascar mission, which was looking for a good use for plantation thinnings, requested information on densified charcoal. An FSP staff member contacted the National Agriculture Library, which found a number of suitable articles on the problem that FSP carefully evaluated, then sent to the Madagascar mission.

Since 1983, there have been about 900 requests for information, or an average of 30 requests per month. Of these, 40 percent were filled with materials available in the FSP office, 20 percent were filled through contacts with libraries such as the National Agricultural Library and the library of the Institute of Tropical Forestry, and the rest were filled by the FSP staff and individual searches. FSP maintains in its offices a "distribution file" of materials that address those requests that occur the most frequently.

Other Services

FSP Periodic Reports. These four- or five-page status reports, which were initiated in 1983, are issued weekly. They cover current activities of the Washington-based FSP staff in the following basic areas: bureau support, mission support, worldwide support, liaison and visitors, miscellaneous, and new publications. Copies of the reports are sent to AID's Office of Forestry, Environment, and Natural Resources in the Bureau for Science and Technology, as well as to the various other AID bureaus and offices in Washington. They also are sent to the AID Regional Forestry Advisors, the Forest Service, the Peace Corps, OICD, IIED, and the international offices of the National Park Service and the Fish and Wildlife Service, among others.

The Quarterly News Memo. In addition to its other information channels, FSP communicates with a network of AID project staff and others interested in or associated with AID's forestry development program through its periodic news memoranda, which contain information about the FSP program, worldwide activities, and project forestry information (both AID projects and those undertaken by other donors and organizations). The memoranda, which normally consist of about 40 pages of information, also contain details about upcoming forestry meetings, current publications, and other newsworthy items.

FSP "Brown-Bag" Seminars. These seminars provide a no-cost forum for the Washington-based forestry/development community to discuss international forestry issues. Organized as time permits and as speakers are available, they typically are held at noon in Rosslyn, Virginia, with those in attendance bringing their own lunches. Beginning in 1983, 6 seminars were held, with participation ranging from 10 to 50 people.



"Brown Bag" seminars cover timely--and sometimes unusual--topics such as the damage that foraging goats can cause to trees in Africa.

In 1984, four seminars were held and in 1985 nine were scheduled, which indicates their high interest and success. Examples of subjects discussed in 1985 were:

- "Private Voluntary Organization Strategies for Peasant Tree Cropping in Haiti."
- "An Example of Community Forestry in Mexico's Natural Forests."
- "Development of the Private Forest Enterprise Sector and the Conservation Story of Southern Appalachia."
- "Technology Transfer to Developing Countries."

- "Followup to the U.S. Congress Office on Technology Assessment Report on Tropical Forests."
- "Neem: A Multipurpose Species."
- "Locally Produced Building Materials for Low-Cost Housing in Developing Countries."

These seminars have formed a continuing education program for Washington-based forestry and have helped investigators come in contact with others having common interests.

Outlook

Future forestry program studies will no doubt reflect a need to obtain more detail about specific subjects. At the same time, there will be a continuing effort to update reports such as The AID Forestry Community, Public Sector Forestry Projects Funded by the U.S. Agency for International Development, and the Profiles of Forestry Schools and Consortia. FSP currently is working with an ad hoc group in AID to develop a report on watershed management in AID programs. With the addition of the Forestry-Agriculture Coordinator, assessments on forestry linkages with agriculture can be anticipated. Private enterprise and Agricultural Trade Development and Assistance Act (P.L. 480) food program activities also will continue to receive attention.

The FSP's sharing of current research, retrieving of scarce documents, and quick and complete response to specific technical inquiries remain some of the FSP's most important--and fundamental--



Future forestry studies will share research such as this work on the development of fast-growing forest species.

activities. They also represent some of FSP's most requested and appreciated services, not only for foresters and their colleagues active in AID and Peace Corps projects overseas, but also for the Washington-based forestry community. The technical reference collection will be maintained and expanded, but will not become competitive with forestry libraries. It will mainly retain those reports and documents that usually are not obtained elsewhere, such as limited-edition consultant reports. FSP Periodic Reports also will continue to be distributed on a weekly basis, while the FSP News Memo will be distributed quarterly. In addition, FSP expects to sponsor at least twelve brown bag seminars in 1986.

Chapter 6 Forestry Training

Overview

The FSP provides forestry training in accordance with the program's fifth objective, which is to organize forestry training courses, develop training materials, advise forestry schools on curriculum design, and help AID design forestry projects with ample provisions for training and education. Development of human resources and organizational capabilities constitute one of the basic elements of AID's Forestry Policy. With the hiring of the FSP Training Coordinator in January 1983, training has received special emphasis. This is part of an overall effort of the program to promote close ties between the FSP and the university community, to promote various training courses deemed to have special value to AID programs, and to work with forestry and educational institutions in developing countries. The FSP has moved ahead with these activities through the following four-point strategy:

1. To provide advice on training needs during the design stage of new AID projects.
2. To develop forestry curriculum that can be used to educate forestry students living in countries where forestry literature may be unavailable or difficult to obtain.
3. To organize short courses in forestry and develop instructional materials on high-priority issues such as agroforestry, soil conservation techniques, and natural forest management.
4. To assist in sending developing-country foresters to important meetings and courses.

This training strategy is designed both to build a long-term infrastructure of qualified foresters within less developed countries (LDC's) and to make training--and the institutional coordination and capacity that comes from training--an integral part of all new forestry activities. The core of this strategy is to emphasize training and educational opportunities that strengthen the understanding and application of forest resource administration and management principles, policies, and practices; and that promote linkages between LDC and U.S. institutions and organizations. Each of these four strategy points is discussed below, as is as linkage support through twinning arrangements between LDC's and U.S. institutions.



The FSP promotes on-the-job training for projects such as this logging operation in Latin America.

Training Assistance in Forestry Projects

The first point of FSP's training strategy stems from a recognition that perhaps the most significant effect FSP can have on forestry training in AID countries is to ensure that adequate training (long- and short-term, professional, and technical) components are included in the design of future AID projects that involve forestry. Recognizing this need, FSP has provided technical assistance for the training components of several major forestry projects. Some examples include the Association of Southeast Asian Nations (ASEAN) Watershed Management Project, a research project designed to develop better watershed methods in the ASEAN countries of Indonesia, Malaysia, the Philippines, Singapore, and Thailand; the Regional Central America and Panama (ROCAP) Regional Watershed Management Project, and a project with similar objectives for Central America and Panama.

The training component of the ASEAN Watershed Management Project is ambitious. The project has both long- and short-term goals of sponsoring a variety of training activities designed to improve the professional qualifications of up to 520 Pacific-area participants in the watershed management network in positions ranging from senior policy-makers to technicians. Both AID and FSP staff believe this training is necessary for maintaining an effective research network in the region and, ultimately, for promoting the watershed goals and activities of the entire ASEAN region. These training activities will include symposiums, seminars, workshops, and formal academic degree programs. These activities also are designed to give those working in the region a common perspective on the program and its goals.

The training component of the ROCAP Regional Watershed Management Project is designed to expand and improve watershed management training capabilities at the Tropical Agricultural Research and Training Center (CATIE) in Turrialba, Costa Rica. The program also is designed to increase awareness and improve the technical capacity of both the CATIE staff and the various national staffs in the ROCAP region who must carry out watershed management activities. These training objectives will be accomplished through a comprehensive array of activities that include a degree program for 18 or more professionals and a nondegree program for up to 21 professionals, along with a number of short courses, workshops, and seminars that are expected to reach hundreds of other personnel in Central America. In addition, study tours in the United States and within the region will be conducted for another 18 people in the region. In all, about 900 people are scheduled to participate in a combination of training and educational activities.

Curriculum Design and Development

Consistent with the second point of its training strategy, the FSP, by using either its own staff or by hiring contractors through OICD, has advised developing-country forestry schools on curriculum design and development. This assistance is provided at the request of AID missions, which send FSP one or two inquiries per month requesting information on these topics.

There have been several highlights in this area. At the request of AID in Honduras in 1983, FSP provided a contractor to the Honduran National Forestry School (ESNACIFOR) to provide short-term advice about restructuring the school's curriculum for technician-level training.

AID also requested that a consultant be provided to advise Landivar University in Guatemala about developing an environmental sciences and academic program for a 4-year university degree in environmental sciences, with an emphasis on issues related to rural development, society, and agriculture.

In 1982, AID's Regional Forestry Adviser for Central America and Panama, proposed that a Spanish-language training manual on agroforestry be developed. Responding to his suggestion, the USDA Office of International Cooperation and Development and Duke University (on behalf of the Organization for Tropical Studies, Inc., a U.S.-based university consortium with field facilities in Costa Rica) agreed in 1984 to produce a Spanish-language, modular, agroforestry manual to be used both for self-guided study and for course work in Latin American forestry schools. This manual, which is being developed by two full-time instructional materials specialists working closely with CATIE, will be completed in March 1986 and distributed throughout the region. Plans to translate the manual into English and French using local country and regional examples of agroforestry practices will be considered at that time.

Organization of Short Courses

The third point of the FSP's four-point training strategy is to organize short courses in forestry and develop instructional materials on high-priority issues such as agroforestry, soil conservation techniques, and natural forest management. Accordingly, FSP funds have been made available for organizing and teaching short courses relevant to the needs of foresters in AID-recipient countries. In 1983, for instance, at CATIE in Costa Rica, AID's Bureau of Science and Technology, in consultation with AID's Latin American Bureau, approved funding for a short course on agroforestry in Spanish

for host country participants as part of an effort to broaden their ability to develop and manage mission programs. The course, which was conducted by CATIE staff in November 1983, was attended by approximately 25 personnel located throughout Latin America. It resulted in a noticeably greater awareness in the region about the usefulness of multipurpose trees in farming systems.

FSP also helped the ASEAN Watershed Management Project design a watershed research seminar managed by the University of Michigan for 15 participants from ASEAN countries. Follow-up coordination is now underway with the University of Arizona for a training course in hydrometeorological instrumentation for 15 technicians.

In May 1984, the FSP conceptualized and instituted a cooperative agreement between the Forest Service, the Office of International Cooperation and Development, and the University of Michigan for conducting educational programs on the resource administration and management of forest areas. Under terms of the 2-year agreement, a yearly 1-month International Training Seminar on Forest Resource Administration and Management is scheduled. The seminar is designed to teach senior forestry administrators and forest managers in developing countries about policy, administrative, and managerial concepts used in U.S. public and private forestry that may be applicable to forest management systems in other areas of the world. The inaugural 1984 seminar, which was attended by 23 senior-level foresters from 21 developing countries, started in Boston, Massachusetts, and traveled by bus and air down the eastern seaboard of the United States, visiting various sites before ending in Atlanta, Georgia. The overall themes of the seminar--social responsiveness and managerial efficiency and effectiveness--build upon course elements

that include resource policy and administration, coordination, organization and management, land use, community enhancement, and conflict management. A second seminar was held September 24 to October 22, 1985, and included most of the sites visited in 1984. It was attended by 28 foresters from 27 countries.

Over the last several years there have been preliminary discussions aimed at organizing training courses with the University of Arizona (Watershed Management for the Himalayas), the University of Tennessee (a Training and Institution Building Program for Erosion Control and Land Restoration in the Andean Region of South America), and Paul Smith's College (Training for Forestry Technician Educators from Developing Countries). These tentative courses are in different stages of development and represent possible future opportunities.

Taking advantage of his expertise in Watershed Management, the Training Coordinator has participated as a lecturer



FSP personnel with visiting foresters in the field in Maine during the First International Forestry Seminar.

in two Forest Watershed Management training courses--one in Kenya (1983) and the other in Nepal (1985). The organization of these short courses was in collaboration with the Food and Agriculture Organization, which received funding for these efforts from Finland. At these two courses, 66 people from 26 countries received an introduction to integrated land-use concepts and to agroforestry and conservation farming systems in watersheds where forests and other soil and water resources are being depleted.

Training Assistance to Developing-Country Foresters

As part of the final point of the four-point strategy to promote training activities and extend opportunities for professional development to foreign foresters, FSP advises missions and students in less developed countries who need training assistance about forthcoming training opportunities and seminars. Technical workshops and seminars with maximum training value are selected so as to implement FSP's broader technology transfer and research information dissemination objectives. In certain cases, when mission funds are not available, FSP provides modest support to enable LDC candidates to participate in priority international seminars, workshops, short courses, and other training activities, paying some part of the international travel costs, per diem, and course fees involved. Priority training opportunities are publicized by a combination of notices sent to the various AID missions and others as appropriate.

In 1983, 10 foresters from 9 countries were provided assistance to attend 2 meetings on general forestry and genetics. In 1984, under FSP sponsorship, 23 people attended courses on agroforestry, general forestry, and forestry administration and management. In 1985, 36

foresters and people in related fields working with forestry organizations were sponsored to attend 7 training or educational sessions on subjects ranging from general forestry to tree planting in semi-arid and arid regions. In 1984 and 1985, the FSP-sponsored participants were in addition to those attending the International Seminar on Forest Resource Administration and Management.

FSP-sponsored participant training has included sending an Indian working in Uganda to the International Union of Forestry Research Organizations (IUFRO) conference on forest products research in Madison, Wisconsin, in 1983. FSP assistance also made it possible in 1984 for researchers from Upper Volta and Madagascar to attend the IUFRO conference on forest tree improvement in Harare, Zimbabwe, and for a forester on the staff of the Malian Ministry of Rural Development to present a paper on strategies for forestry development in the semi-arid tropics at the Wageningen Symposium on reforestation held in the Netherlands. In 1983, the FSP sent five LDC graduate students engaged in forestry training in the United States to the national convention of the Society of American Foresters (SAF) in Portland, Oregon. In 1984, four other LDC students were given assistance to attend the annual SAF conference in Quebec, Canada, and in 1985 the FSP arranged for three students to contribute to the SAF meeting in Ft. Collins, Colorado. FSP also sponsored participation at the ninth World Forestry Congress in Mexico City by 17 individuals from 14 countries, most of whom had been recommended by their respective AID mission staff.

Institutional Linkage Support

A major void within the forestry sector has been the fostering of twinning

arrangements between LDC's and U.S. institutions. Therefore, in 1985 support was given to graduate research study to: (1) increase research on priority LDC forestry topics, (2) foster cooperative forestry research and technology transfer in LDC's, and (3) strengthen ties between U.S. and LDC universities.

This linkage was instituted on a trial basis through five awards for graduate research:

- Reforestation of Degraded Land and the Impact on Water Quality in the Wet Zone of Sri Lanka. James Smyle, University of Georgia, Principal Investigator.
- A method of Land Evaluation for Watershed Land Use Planning in the Tropics: A Case Study of Riam Kanan, Indonesia. Jim Schweithelm, East-West Center, Principal Investigator.
- Fuelwood Policies for Swaziland's Rural Development Areas Programme: A Comparison of Individual Farm and Community Approaches. James Allen, Cornell University, Principal Investigator.
- The Effect of Light Exposure Level on the Recruitment and Growth of Five Tropical Tree Species (Peru). Nora Devoe, Yale University, Principal Investigator.
- A Strategy for the Implementation of Erosion Control Practices to Enhance Watershed Development Projects in Ecuador. Robert Davis, University of Tennessee, Principal Investigator.

Outlook

FSP-funded training and education will stress the theme of forest resources administration and management and its

variations. Within this theme, there will be a concentration on strengthening the ongoing programs.

This will include supporting the annual International Seminar on Forest Resource Administration and Management at the University of Michigan and finalizing the Agroforestry Training Manual being developed with the Organization of Tropical Studies. Training activities will continue to include sending foreign forestry and natural resource professionals and students to seminars, conferences, and workshops; they also will include fielding of consultants for identifying train-

ing or project design needs. Assistance for research support and sabbaticals initiated on a trial basis as a separate program initiative will be limited as an adjunct to other FSP activities.

What has been learned in earlier activities, in turn, will suggest new programs. In consultation with AID bureau representatives, missions, universities, and other forestry professionals, the Training Coordinator will periodically refine the FSP Forestry Training Strategy to assure a relevant and active role in meeting the important forestry training objective of the FSP.

Chapter 7 Technical Support to Research

Overview

FSP's sixth objective of providing AID with technical support in forestry research is compatible with the recent growth of AID's forestry activities into areas where little technical information is yet available. More and more AID forestry projects are being designed that address difficult social needs of rural people, that integrate forestry and agricultural practices, and that require the development of multipurpose tree species for marginal lands. To provide needed new technical information for the projects and to provide background for AID research, FSP began between 1983 and 1985 to undertake technical studies and research initiatives, which are highlighted in this chapter. Early evidence of the influence of some of these technical studies and research initiatives on AID programs also is noted.



Tree management normally is difficult in high elevations, but it is especially difficult in Nepal, where little technical information is available.

Technical Studies

The following technical studies were conducted between 1983 and 1985:

- Review of CILSS Forestry Sector Program Analysis Papers. This 40-page, English-language report synthesizes the national forestry sector studies of 7 countries completed by the Club de Sahel and the Comité Permanent Interetats de Lutte Contre La Secheresse dans le Sahel (CILSS). The countries analyzed were Burkina Faso (Upper Volta), Cape Verde, The Gambia, Mali, Mauritania, Niger, and Senegal. The report distills the collective forestry experience from these seven sector studies and makes detailed recommendations on the strategy and approach that AID and other donor groups in the region can use to address various long-standing in-country problems that have rendered programs far less effective than they should have been. In addition, a 20-page appendix discusses the conditions in each of the 7 countries in the Sahel region.
- Government Incentives to Encourage Reforestation in the Private Sector of Panama. Three strategies are presented in this study: (1) policy reforms affecting timber concessions and timber cutting rights; (2) incentives that could be used to overcome the private sector's lack of knowledge about forest plantation investment opportunities; and (3) incentives that could be used to overcome the private sector's lack of financial interest and technical ability in this area.
- Management of the Natural Forests in the Sahel Region. This 78-page report assesses the potential of natural forest management in providing fuelwood and other forest products in the Sahel Region of Africa. It also discusses

forestry and environmental problems in the Sahel region, assesses work that has been done to address these problems, and discusses and recommends technical, economic, social, and administrative strategies being pursued to mitigate these problems. This report provides two appendixes, one listing recent and proposed forestry projects, and the other listing national forests and national parks in the Sahel.

While the original FSP objectives included provisions for research, the amended program objectives reemphasized the need for technical support to AID research in such areas as fuelwood, genetics of multipurpose trees, and studies of forestry research institutions in AID-recipient countries. The FSP provides technical assistance for forestry-related research efforts, as well as expert referrals for research expertise to the AID bureaus, missions, and regional offices. In Latin America and the Pacific, the FSP's emphasis has been on watershed management, whereas in the other regions the emphasis has been on strengthening the institutions doing research. The FSP helps develop research workshops and technical training opportunities that help to augment other resources that contribute to advancing research programs.

The FSP's most meaningful contribution perhaps has been in project design. For example, the principal thrust of both the ASEAN and ROCAP watershed management projects is developing an infrastructure to support research. FSP was strongly involved in designing both of these major efforts.

In 1984, AID authorized \$172,000 above the basic FSP funding levels to support the development and initial implementation of the Bureau for Science and Technology's Forestry/Fuelwood Research and



The FSP helps combat erosion problems such as the damage caused by overcultivation.

Development Project (F/FRED) within AID. Designed by the Bureau for Science and Technology, F/FRED will be a 10-year effort to improve forestry/fuelwood research capabilities in Asia, Latin America, and Africa. Under the additional authorization, OICD, with FSP recommendations, hired several consultants in 1983 and in 1984 to help assemble data in preparation for designing the project.

An example of an FSP-organized research workshop took place in Kenya in 1984. By providing necessary funding assistance and consultants to serve as advisors to workshop organizers, FSP was instrumental in helping the Kenyan Government convene a workshop on forestry research that has served as a first step toward setting national priorities for forestry research in that country. Results are discussed in a "Report on the Workshop for Strengthening Forestry Research in Kenya," and detailed in the 318-page publication "Proceedings

of the National Workshop on Strengthening Forestry Research in Kenya" (see Appendix C). Also, as discussed in Chapter 6, FSP led the organization of a month-long seminar held in the United States in June 1985 on Management of Watershed Research for ASEAN country scientists.

Arrangements are now well under way for FSP to provide financial and technical assistance for two small-scale applied research studies. The first study deals with the nutritional content of leafmeal made from trees in Indonesia. The study is associated with the Nitrogen-Fixing Forage Species Project being developed by the Indonesian Animal Productivity Research Laboratory at Bogor. FSP is providing about \$5,000 for this research, which will widen understanding about the use of trees within agriculture systems. The second study deals with the effectiveness of windbreaks in the Majjia Valley in Niger and is jointly funded by FSP, AID's Food for Peace and Voluntary Assistance Bureau, and CARE. The study is designed to determine appropriate silviculture techniques for managing windbreaks and determining the effectiveness of windbreaks in boosting crop yields. Findings from the study indicate millet crop yields are increased 25 percent using Neem tree windbreaks to protect against wind erosion.

Influence on AID Programs

The technical studies described in this chapter, which have been undertaken or influenced by FSP/OICD, have had and continue to have an important influence on AID's forestry program direction. The

CILSS Forestry Sector Program review led the way for a major review of African forestry project experience at a Yogo workshop by the Africa Bureau in 1984. The study of Natural Forest Management in the Sahel in 1983 greatly influenced the high profile of natural forest management opportunities in the Africa Bureau's revised forestry strategy. The study of Reforestation Incentives for Private Enterprise, done in 1983, led to the development of the Agency's first private reforestation incentives project component (approximately \$10 million) within Panama's Natural Resources Development project.

Outlook

A major focus in the future will be to gather information concerning forestry links between private enterprise initiatives (see chapter 8) and forestry/agricultural linkages. It is anticipated that FSP will undertake several studies on special problems that may confront AID, such as forestry to enhance agriculture watershed management as a common linkage to land-use planning. Also being considered is a comparative study of extension services' approaches for the transfer of forestry technology and the enlistment of popular participation in forestry projects in developing countries. FSP-initiated activities also will gather in one place a working set of the voluntary and technical papers that relate to AID programs from the 1985 Ninth World Forestry Congress and will assess the long-term impacts of the Chad Acacia albida reforestation project.

Chapter 8

Forestry-Private Enterprise Initiative

Role of Private Enterprise in World Forestry

The seventh FSP objective calls for stimulation of private forestry enterprise by identifying and developing markets for the forest products of AID-recipient countries. FSP's forestry private enterprise initiative is designed to help implement those provisions of AID's forestry strategy that call for increased private forestry sector involvement in development programs, while fostering environmentally sound forest resources management and conservation.

The program is designed to expand forest-based employment and income in AID's client countries through the mechanisms of private enterprise. Over a period of 4 to 5 years, the effort will furnish professional contacts, technical knowledge, and economic analysis to support the main goal of strengthening forestry and forest industries in low-income countries. Components include efforts to advance the marketing of forest products, develop and distribute investment profiles for forest industries, analyze government policies as they affect forest-based businesses, assist technology transfer for forest-based enterprises, and provide appropriate technical and managerial training for private enterprise forestry development. These efforts will be concentrated in one or two target countries of Latin America and the Caribbean Basin.

In addition, the initiative seeks to engage in a high level of information exchange (or "brokering") at a worldwide level. It apprises AID officials of the potential of the forestry sector in rural development. It furnishes information to the U.S. forest industries and service suppliers on potential trade and investment opportunities in AID's client countries. An additional flow of information



Private enterprise is a new forestry initiative that will foster operations such as this sawmill in Africa.

about the United States as an import market and source of technology is directed toward forest-based enterprises in these developing countries.

Korea and Singapore provide examples of fast-developing countries that have benefited from their vigorous private enterprise sectors. Their progress has been observed by AID, as well as by other developing countries, many of which are now seeking ways to encourage the private sector, including the private forestry sector. This also is being reflected in the design of AID projects. For example, FSP, at the request of AID's Panama Mission, obtained the services of a consultant to determine and recommend government incentives to encourage reforestation on private lands. As a result, the mission is now moving to implement a major new project to support reforestation incentive efforts. While this project is still very much in the preliminary

stage, the idea behind it is that growing timber and stabilizing watersheds can be most efficiently done by a mixture of government and private enterprise efforts and that tax or cost-sharing incentives will encourage the private sector to become involved by increasing the profit opportunities for private landowners.

With its emphasis on integrating the various sectors of the international forestry community, FSP shares AID's belief that private sector approaches can complement public sector programs by adding the motivation and efficiencies typically expected from the private sector. During 1984, FSP set in place mechanisms designed to help increase the involvement of the private forestry sector in AID activities. This process began in late 1983 under the amended FSP program, when AID, in accordance with its then recently articulated Forestry Sector Strategy, provided funding for FSP to encourage private sector solutions to some international forestry problems by identifying better markets for forest products in AID-recipient countries, and by improving utilization efficiency in the conversion of forest products.

Recent Private-Enterprise Activities

An initial outcome of the FSP's efforts to promote private sector involvement in international forestry was a February 1984 agreement between OICD, the Forest Service, and the Southeastern Center for Forest Economics Research (SCFER)¹ to perform cooperative research on the economic potential of the private forestry sector in developing countries, and to develop demonstration projects related to this research.

¹SCFER is a research consortium that consists of the U.S. Forest Service's Southeastern Forest and Range Experiment Station, North Carolina State University, and Duke University.

SCFER's involvement with AID began in July 1982, when the two organizations embarked upon a cooperative research study designed to produce ideas and recommendations on the design of private enterprise forestry projects in less

developed countries. As part of this study, AID and SCFER sponsored a November 1982 workshop in Raleigh, North Carolina, at which a number of nationally recognized authorities from government, the private sector, and the university community discussed various issues associated with private sector development in less developed countries. In addition, those at the workshop developed concepts for potential programs and demonstration projects related to such development.

As an outgrowth of these efforts, SCFER has now established the groundwork for research and field outreach activities and is implementing them by creating two positions (see chapter 1): a Washington-based Forest Enterprise Coordinator and a Market Development Specialist based in Quito, Ecuador, who works primarily in Latin America developing internal and external markets for the forestry products of AID-recipient Latin countries. Since these two positions were filled in the fall of 1984, the Forest Enterprise Coordinator and Market Development Specialist have been working closely to identify forestry business opportunities, particularly those in Latin America. The FSP roster of consultants is being expanded to include more forest industry experts. In addition, the Market Development Specialist visited several Latin American countries in the process of selecting a location for demonstration activities that would assist local wood products industries in conjunction with AID mission private enterprise projects. In his role as an information broker, the Forest Enterprise Coordinator is being consulted more and more by AID bureaus, the forest industry, consultants, and



Charcoal production is a big local business throughout the developing world.

others who need up-to-date information and assistance.

As part of SCFER's 5-year program of research, the consortium plans to evaluate the following for selected developing countries:

- The economic effects of forestry incentives programs.
- The effects of timber concessions policies on the forest industry.
- The effects of tax structures on forest resources.
- The effects of trade policies and incentives on the import and export of forest products.

One research activity that SCFER already is undertaking is a case study of successful incentives programs for the reforestation of private lands in Chile and Brazil. The results will be used to suggest policies aimed at stimulating private forestry investment in other countries where such investment has been

insufficient to keep up with timber harvesting and timberland clearing. In addition, SCFER plans to perform economic research on the supply of and demand for particle board, as well as to assess the economic effect of price and income on the demand for wood products used for housing in less developed countries.

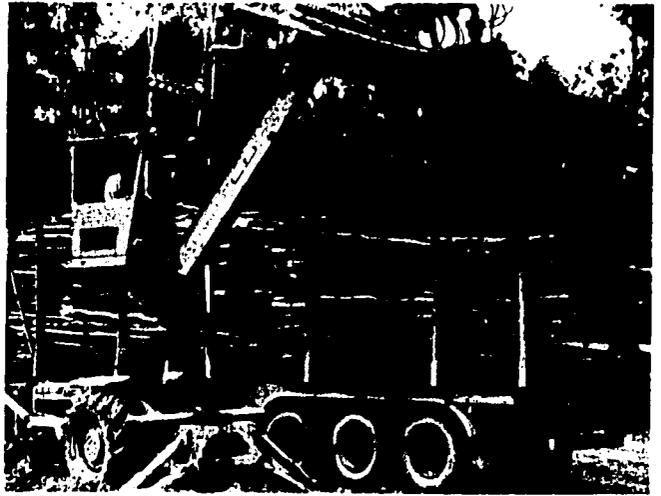
Besides these research topics, SCFER will develop additional research themes and projects based on field results from its demonstration initiative and from ideas solicited from Latin American governments and the Latin American forest industry, as well as from the U.S. forestry community. To guide these efforts, the forestry enterprise initiative will seek advice from a four-person panel drawn from industry, the university community, and other nongovernment organizations. This panel will meet annually to provide advice on research and development and to recommend program priorities. The panel also will assist in the selection of qualified personnel and organizations necessary to carry out research. It is expected that the work of the Forest Enterprise Coordinator and the Market Demonstration Specialist also will enable them to identify research opportunities.

The private enterprise program in FSP is still too new to yield reportable accomplishments. However, strong expressions of interest from AID Bureaus promise to provide the active cooperation that the program will need to be a success.

Outlook

As a new activity, the forestry private enterprise initiative will have to become better known and achieve some successes for it to become as well accepted in AID programs as other FSP functions. Thus, the task presently facing FSP is to make known the availability of its private

enterprise expertise and to begin the task of influencing the development and execution of AID private enterprise programs. Once the Forest Enterprise Coordinator becomes widely recognized as a source of information and research results become available--and once the efforts of the Market Development Specialist begin to show the strong economic income and employment potential of the Latin American forestry sector--FSP is confident that AID project planners and managers will make increasing use of FSP's private enterprise capabilities.



One of FSP's future tasks will be to encourage private enterprise development that is environmentally nondestructive.

Chapter 9

Forestry-Agriculture Initiative

The eighth FSP objective is to promote linkages between agriculture and forestry in the tropics as part of an effort to improve the effectiveness of AID's projects and land management practices in less developed countries. This objective is a result of a growing recognition among foresters and agronomists that severe localized shortages of firewood and other tree products, as well as the effects of upland deforestation (such as erosion, siltation, and soil impoverishment), are serious interrelated problems confronting both forestry and agriculture. Projects that combine both fields of expertise hold part of the key to such basic needs as crop production, fuelwood, and shelter. With world population expected to increase by 4.1 billion to 6.1 billion in the next 20 years and with forests declining at the rate of 11-million hectares per year, foresters and agriculturists alike recognize the need for mutually supportive solutions.

With its longstanding concerns about boosting food production in developing nations, AID has fully recognized the need for direct and meaningful cooperation and, in 1983, under the amended FSP project document, AID provided funding for FSP staff to increase its involvement with agriculture and forestry activities within AID's assistance programs. FSP's agriculture-forestry initiative is designed to augment efforts to implement AID's forestry strategy elements, which call for building and strengthening mutually supportive relationships between forestry and agriculture in client countries. This initiative will explore the potential of agricultural programs to help LDC's develop their forest and renewable natural resources management institutions and to stabilize and conserve their forests and other elements of the natural resource base. The program also will provide insight that will better enable AID to encourage LDC's to



The FSP will continue to contribute to agricultural efforts that are linked with sound forestry practices.

approach the conversion of forest land to agriculture in ways that ensure sustainable production systems, full consideration of forest-based economic development opportunities and options, and the most appropriate forest land-use choices in relation to soil characteristics and land capability. Moreover, the initiative will seek agroforestry and conventional agricultural cropping solutions as alternatives to destructive forms of slash-and-burn agriculture, thereby promoting efficient utilization of timber as forest land is converted to agriculture.

In 1983, FSP took a first step toward this goal through its training program by formalizing an agreement with the Organization of Tropical Studies (OTS)

at Duke University to produce an agroforestry manual in Spanish in cooperation with CATIE, an agricultural center in Costa Rica that already offers a trimester program on agroforestry as part of its graduate program. Agroforestry combines agricultural or livestock production with tree crop production using local management practices that suit the social or cultural characteristics of the local people, economy, and environment. Agroforestry includes such practices as "live fences," forestland grazing, trees intermixed with food crops, or shade trees for coffee growing. OTS's agroforestry manual, which is designed for Spanish-speaking university students, instructors, and professionals as part of self-study, regular, or short courses, will include a collection of selected examples of practical exercises, class study topics, an instructors' guide, and key references. The manual should be completed by March 1986.

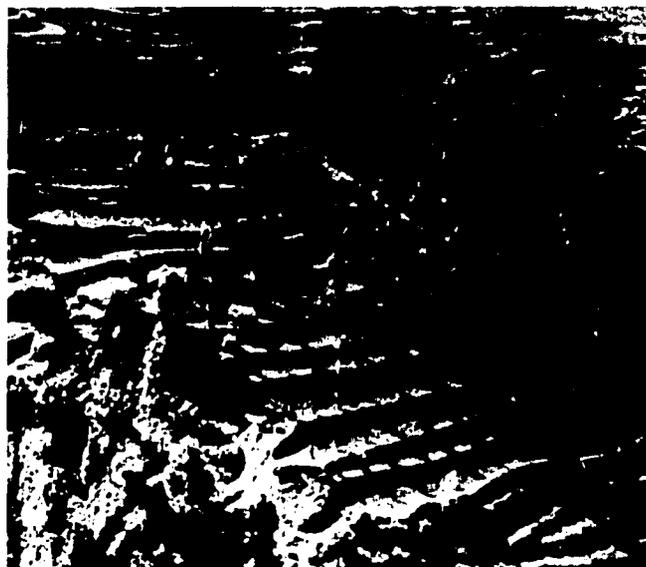
Even though the Forestry/Agriculture Coordinator is not joining FSP until late 1985, various staff members have been involved in additional related activities. Among FSP efforts that have dealt with forestry/agriculture interrelationships, the Asia Near East Coordinator helped design the Bangladesh Homestead Agroforestry Research and Extension Project. In other efforts, the Africa Coordinator participated in evaluating the Majjia Valley windbreaks established by CARE and the Government of Niger; and the Latin America Coordinator actively participated in an Agroforestry Workshop in Haiti.

Outlook

The FSP anticipates raising AID attention to agriculture and forestry interrelationships in the future as the Forestry/

Agriculture Coordinator attempts to influence the design and execution of AID-financed agriculture and forestry projects worldwide. Initially, this will require a review of the overall status of AID's portfolio of programs and projects that link forestry and agriculture. The FSP also will closely work with AID to identify the need for training courses for foreign nationals dealing with forestry/agriculture linkages. One need might be a unit on management, as well as harvesting and timber utilization techniques for agronomists and others involved in managing forestry/agriculture projects in developing countries.

While the FSP will not be directly executing forestry/agriculture projects, it would expect to influence such activities as planting of selected trees and shrubs on agricultural lands to reduce runoff, windspeed, and temperature within fields; recycling soil nutrients and stabilizing or increasing crop yields



One of FSP's main objectives will be to encourage better agricultural practices through improved forestry management, as with the use of bunds for growing trees in this terraced environment.

through green mulching, canopy shade, and windbreaks; and providing food and fodder reserves, or increasing the availability of fuelwood. Among other varied subject areas that FSP's forestry/agriculture initiative may explore in the future are appropriate agricultural policies and land use determinations, land capability

analyses in advance of agricultural expansion and colonization in tropical forest areas, land and tree tenure issues, forested range lands management, upland watershed linkages to irrigation, and recuperation of abandoned agricultural lands.

Appendix A

Descriptions of the Basic FSP Positions

Program Manager

The Program Manager shall:

- (1) Manage all FSP activities and services;
- (2) Provide technical professional support for Regional Forestry Advisors;
- (3) Supervise activities of the Regional Coordinators, the Special Projects Coordinator, the Training Coordinator, and other administrative and professional staff personnel;
- (4) Direct International Experts Roster and network development, updating, referrals, services, and management;
- (5) Coordinate and cooperate closely with AID through the AID liaison official;
- (6) Plan and arrange special studies, management investigations, commercial profiles, continuing investigations, and private enterprise and market development demonstration activities;
- (7) Manage short-term expert services funds and delivery of services to LDC's through AID channels.

Training Coordinator

The Training Coordinator shall:

- (1) Develop the information necessary to establish and maintain an up-to-date roster of training opportunities;
- (2) Work in liaison with FSP and AID foresters to identify opportunities for graduate students and university sabbatical placements in LDC's; and to help develop needed training materials and courses, as well as to prepare administrative actions necessary for arranging or contracting their activities;

(3) Review curriculum packages prepared for FSP and otherwise coordinate the successful final production of such packages, assuring that contractors meet deadline and quality control requirements;

(4) Make contacts with training or other institutes regarding cooperative ventures, including the use of consultants;

(5) Arrange for writing, printing, or other preparation necessary for the production of training materials;

(6) Conduct the administrative, reconnaissance, and liaison activities necessary to set up institutional and contractual arrangements for providing training activities in selected LDC's;

(7) Participate in or evaluate selected training courses or workshops as the FSP Manager considers necessary;

(8) Work in cooperation with the S&T/FNR and other parts of AID to improve institutional delivery capability by mobilizing a combination of universities, forestry technical schools, and consultants for more effective and timely implementation of local technical and professional forestry training components in Mission forestry projects, as well as for the delivery of organized forestry education and training advisory services.

Regional Coordinators (Africa, Asia and Near East, Latin America and Caribbean)

The Regional Coordinators shall:

(1) Work under supervision of the Program Manager in close cooperation and liaison with Regional Bureau Technical offices and forestry specialists;

(2) Work on both Experts Roster and network development design, updating,

servicing, and managing, with an emphasis on regional aspects of these activities;

(3) Work to define network parameters, referral procedures, and services to meet Agency, Regional Bureau, and Mission needs, including research, education and training, and private enterprise requirements;

(4) Identify cooperators and offer professional support and service to LDC's through Regional Forestry Advisors, other field cooperators, and Missions;

(5) Coordinate the Regional Bureau's forestry expert referral and special studies activities.

Special Projects Coordinator

The Special Projects Coordinator shall:

(1) Maintain experts and training roster entries and retrieve roster information;

(2) Handle routine communications and inquiries from professionals who want to be included on the roster;

(3) Encode and enter new roster information;

(4) Provide administrative support for FSP staff, including budget tracking for project activities and short-term consultant travel and technical assistance activities;

(5) Help with administrative arrangements for training activities, special consultant studies, and continuing investigations.

International Seminar Director

The Seminar Director shall:

(1) Administer and manage an annual month-long International Seminar on

Forest Resource Administration and Management;

(2) Plan for all aspects of the Seminar, including curriculum development, budget supervision, recruitment and selection of participants, coordination with U.S. agencies and those of other countries, and guidance and management of staff assigned to support the Seminar;

(3) Serve as a member of the University of Michigan faculty and participate in course instruction;

(4) Provides backstopping to AID's training and education efforts;

(5) Update the Profiles of U.S. Forestry Schools and Consortia and add forestry schools in less developed countries to the list.

Forest Enterprise Coordinator

The Forest Enterprise Coordinator shall:

(1) Provide technical advice and backstopping for all forestry-related private enterprise and commercial forest development project activities;

(2) Provide special backstopping support to FSP's forest policy market development demonstration activities and to its demonstration forester;

(3) Perform communication and liaison functions with OPIC, Department of Commerce, Trade and Development Program, USDA Foreign Agricultural Service (FAS), S&T/MD, and AID Private Enterprise Bureau;

(4) Work closely with other FSP staff to ensure attention to technical and institutional aspects of commercial/industrial forestry within all normal FSP functions, including institutional profiles, Experts Roster development and

maintenance, training support, expert referrals, and delivery of technical assistance;

(5) Open and maintain lines of communication and a basis for cooperation directed at improved Agency utilization of U.S. private forestry institutional capabilities between AID and National Forest Products Association (NFPA), the Association of Consulting Foresters (ACF), and other private commercial forestry organizations and firms;

(6) Arrange for preparation of a series of brief Commercial Forestry Profiles and Forestry Market Outlook Analyses for selected AID client countries that will improve understanding of current forestry sector contributions to rural and national economic development and of the sector's future opportunities and potential;

(7) Commission a series of articles for publication and wide dissemination in forest industry trade publications that will highlight the advantages and mutual benefits gained by both U.S. and LDC participants from varied forms of involvement in LDC's, ranging from production management, technical assistance consulting services, and technology transfer to production contracts and direct investment;

(8) Make direct contact with representatives of both large- and medium-scale U.S. firms with successful development experiences to promote and encourage continued and greater forestry involvement, to utilize the people and experiences gained elsewhere, and to document successful case histories for wide distribution;

(9) Encourage and help to make supportive arrangements for otherwise entirely privately financed U.S.-industry-to-LDC industry contacts, especially between

medium-scale industries in LDC's and representatives of similar U.S. firms.

Market Development Specialist

The Market Development Specialist shall:

(1) Work closely with the Forest Enterprise Coordinator to ensure that demonstration activities fit in both with the realities of the forest resource situation and with ongoing AID private enterprise efforts;

(2) Work primarily in the Caribbean and Latin America;

(3) Identify promising regional markets and support commercial efforts to develop those markets;

(4) Develop support in other forestry sectors, especially the university sector, and to work closely with SCFER to relate FSP activities to SCFER's broader research-demonstration activities.

Forestry-Agriculture Coordinator

The Coordinator shall:

(1) Bring technical knowledge, leadership, and organizational skills to the assistance of AID central and regional bureaus and field offices in planning and developing programs and projects that link forestry with agriculture;

(2) Initiate and direct, in collaboration with AID, technical and policy studies on the relationship of forestry to agriculture in tropical countries;

(3) Identify needs for, and help develop, training courses and materials on the forestry-agriculture linkage.

Forestry-Food Coordinator

The Forestry-Food Coordinator shall:

(1) Provide technical advice to AID's food-assisted forestry projects;

(2) Establish appropriate linkages with organizations such as the World Food Program;

(3) Coordinate closely through the AID S&T/FNR office with the FVA Bureau and

Regional Bureaus to provide technical advice to P.L. 480 projects that deal with forestry, windbreaks, dune stabilization, reforestation, agroforestry, soil conservation, and watershed management.

This position, to be cost shared between AID and the Forest Service, is expected to be filled by mid-1986.

Appendix B

Profiles of FSP Professional Forestry Staff

Gary B. Wetterberg, the FSP Program Manager, served for 6 years as the Western Hemisphere Program Coordinator for the National Park Service. For nearly a decade, Dr. Wetterberg has worked in Latin America in various capacities, starting with a 2-year (1967-69) assignment with a Peace Corps forestry project in Chile. Through an FAO regional project, he later helped draft Colombia's National Environment and Natural Resources Law, and he has served as an FAO instructor for wildland management training courses in Peru, Paraguay, and Ecuador. As a Senior FAO Advisor to the Brazilian Forestry Development Institute, he coordinated initial preparation of Brazil's Park System Plan. Dr. Wetterberg represented the National Park Service on assignments in Portugal, India, Japan, Pakistan, Indonesia, and Spain. Previous Forest Service work in the United States has included 2 years of research with the Pacific Northwest Forest Range and Experiment Station, as well as seasonal positions on National Forests in Colorado (Routt), California (San Bernardino), and Wyoming (Shoshone). A native of Colorado, Dr. Wetterberg has traveled extensively throughout the world. He holds B.S. and M.S. degrees in forestry from Colorado State University, as well as M.F.R. and Ph.D. degrees in forestry from the University of Washington. Languages: conversationally fluent in Spanish and Portuguese.

Mervin E. Stevens, the Training Coordinator, is a forester with specialties in soil science and watershed management. His 26 years of USDA Forest Service experience include 10 years of international work with long-term overseas assignments with AID or FAO in Viet Nam, Nepal, and Italy. These assignments have taken him into Central America, Asia, and Africa. His U.S. experience spans the whole range of ecosystems in

the northern half of the United States, including Alaska (and maritime Canada). During his career, he has served both as a forester and soil scientist and, before going overseas, was assistant director for watershed management in the Eastern Region of the U.S. Forest Service. A forestry graduate of Paul Smith's College, Mr. Stevens, who served as Acting FSP Program Manager for nearly 1 year, holds B.S.F. and M.S.F. degrees in forestry from the University of Montana. He also has done post graduate work at Iowa State and Colorado State Universities. He is the author or co-author of more than 30 professional papers on subjects ranging from ecology to management to training. His activities with the Society of American Foresters include serving as chairman for forest ecology and biology on the Forest Science and Technology Board and as chairman of the Task Force on International Forestry.

Timothy M. Resch, the Projects Coordinator for Africa, has 15 years of forestry experience, including 8 years of international work. In addition to the last 4 years in his present position and 3-1/2 years in Morocco with the Peace Corps as a research forester, Mr. Resch has worked for 7 years with the USDA Forest Service and the South Dakota State Forestry Division. This has included various forestry research and management positions with work in such areas as shelterbelt management, community forestry, silviculture, pest management, and timber harvesting. Mr. Resch holds an M.S. in forestry from Colorado State University, with an emphasis on arid and semi-arid zones and artificial regeneration, and also holds a B.S. in forestry from the University of Minnesota. Languages: good French and fair-to-good Arabic, depending on the dialect.

Thomas F. Geary, the Projects Coordinator for Asia, has 21 years of experience (including 14 years of research project leadership) in physiology, genetics, silviculture, and pathology of tropical and subtropical forest trees. Dr. Geary has worked professionally in Asia, Africa, the Mediterranean, the Caribbean, Latin America, and the Middle East. Dr. Geary has a B.S. in botany from the University of Rhode Island and a Ph.D. in forest pathology from the University of Wisconsin. Languages: good Spanish, as well as some French, Portuguese, and German.

John E. Palmer, the Projects Coordinator for Latin America and the Caribbean, has 10 years of professional forestry experience, including more than 3 years of international work. He has broad experience with the Peace Corps and the USDA Forest Service, as well as with private industry, in such areas as timber management planning, silviculture, and communications. Mr. Palmer has a B.S. in forestry from Humboldt State University. Languages: good Spanish.

Richard J. Calnan, the Special Projects Coordinator, has 9 years of professional forestry experience, including 3 years of international work in nurseries, plantations, and erosion control in Nepal and Colombia. Before joining FSP, he spent 5 years with the USDA Forest Service at both the District and Forest levels in California and Kentucky in land management planning and program analysis. Mr. Calnan has a B.S.F. in forestry from the University of New Hampshire and has 1 year of graduate training in forest economics from the University of California at Berkeley. Languages: good Nepali, fair French.

James A. Burchfield, Seminar Coordinator for the International Seminar on Forest Resource Administration and Management, has 7 years of professional forestry experience. In addition to having worked as a Peace Corps volunteer in Guatemala for 3-1/2 years, he has also worked in Ecuador, Jamaica, and the Dominican Republic, promoting AID/Peace Corps collaboration. Mr. Burchfield has a B.S. in forestry from the University of Michigan and an M.S. in silviculture from the University of Washington. Moreover, he has substantial training and experience in modern beekeeping technologies. Languages: very good Spanish.

John ("Jack") Muench, Jr., the Forest Enterprise Coordinator, has extensive experience in the private sector, having worked for 19 years with the National Forest Products Association (NFPA) in Washington, D.C., where, until recently, he served as Assistant Vice President and Director of Economics. With NFPA, Dr. Muench prepared material on proposed legislation and industry economic issues for congressional hearings, journals, newspapers, radio, and television. In addition, he provided periodic forecasts of wood products, helped develop NFPA's International Trade Department, and served as a member of the 1983 U.S. delegation to the Timber Committee of the Economic Commission for Europe. Dr. Muench received his undergraduate and masters degrees in forestry from Pennsylvania State University, where he later served from 1957 to 1965 as an assistant professor. His doctorate in forestry economics is from Duke University.

Vicente A. Molinos, the Market Development Specialist, whose areas of competence include forestry planning,

engineering, and marketing, has spent most of his 15-year career in the private sector. He has worked as a planner with such organizations as Container Corporation of America and International Paper Company, as well as with the Jari Project in Brazil and a wood products company in Chile. Mr. Molinos has extensive market development experience, having initiated and managed programs to export forest products from both the southern and western United States, as well as from such Latin American nations as Chile, Brazil, and Colombia. Mr. Molinos' undergraduate forestry education is from the University of Santiago (Chile), and he holds an M.S. from the University of California, where he studied under a Fulbright Scholarship and specialized in wood technology and business. Languages: native speaker in English and Spanish, with translational abilities in French and Portuguese.

Associated AID Regional Forestry Advisors

James R. Seyler, the AID Regional Forestry Adviser for East Africa, is stationed in Nairobi, Kenya. He was Associate Director for the Peace Corps in the Upper Volta, and he previously spent 5 years in Upper Volta and the Central African Republic with the Peace Corps staff. Mr. Seyler served as a forester in French Guiana and as a Peace Corps Volunteer in Cameroon. In addition, he has U.S. forestry experience, having worked as a forester in Pennsylvania after completing his B.S. in forestry at Pennsylvania State University. Mr. Seyler also has taken additional specialized courses in tropical silviculture in Puerto Rico. Languages: very good French; good knowledge of some West African languages.

Heinrich M. Tschinkel, stationed in San Jose, Costa Rica, as the Regional Forestry Advisor for Central America, spent 5 years as the FAO Project Manager for the Integrated Watershed Management project in Honduras. Earlier, within FAO, he spent 15 years working on assignments in Tunisia, Costa Rica, and Colombia. Dr. Tschinkel also taught forestry with the Interamerican Institute of Agricultural Sciences (IICA) in Costa Rica. He has a B.S. in botany from Duke and an M.S. in forestry from the University of California at Berkeley. Dr. Tschinkel studied forest soil science as a Fulbright Scholar at Ludwig Maximilian University in Munich, and he completed his doctorate (cum laude) in forest soil science at the University of Hamburg in Germany. Languages: fluent German, good French, very good Spanish, and fair Swedish.

Deanna G. Donovan, the Regional Forestry Adviser for Asia stationed in Jakarta, Indonesia, has served as a private consultant, working on topics of forestry economics, fuelwood use, and social forestry. She has worked for 4 years in Nepal with the Institute of Current World Affairs and is familiar with many Asian countries. She has taught and done research at the University of California and conducted energy research at the East-West Center in Hawaii. She has a masters degree in natural resources from California in 1975 and an undergraduate degree in economics, with emphasis on development. She is in the doctoral program at Oxford, England. Languages: good French, some Spanish, Nepali. (The Jakarta position was phased out in February 1985.)

Appendix C

Reports Produced or Directly Influenced by the Forestry Support Program as of September 1985

Armstrong, George. 1984. Report on Private and Public Sector Enterprises, 154 pp.

This report has four sections: (1) information on personnel and current activities in industry, trade, and market-oriented agencies, as well as forest industry-oriented trade associations and professional organizations; (2) an information base and suggested mechanisms for encouraging market development by private enterprise in AID client countries in Latin America and the Caribbean; (3) recommendations to FSP on appropriate industry and private sector candidates; and (4) a plan of action for undertaking a series of studies and analyses of government sector/private enterprise cooperation activities with potential for advancing forest-based economic development in less developed countries.

Armstrong, George. 1984. The Changing Relationship of Forestry and Agriculture in Burma. 21 pp.

Summary of critical resource needs of hill and valley agriculturists and description of pressures placed on forests in meeting those needs. Includes recommendations for actions to ameliorate these problems.

Armstrong, George. 1983. Report on Workshop for Strengthening Forestry Research in Kenya. 32 pp.

Procedures and deliberations resulting from a workshop held in Eldoret, Kenya, from November 1-4, 1983, that was designed to assist the Government of Kenya strengthen its forestry research program.

ASEAN Watershed Project. 1983. Project Paper. 108 pp.

A 5-year plan describing a forestry research network among Association of Southeast Asian Nations (ASEAN).

This project incorporates research, training, and technical assistance, with an emphasis on watershed management.

Blumgart, John. 1984. Forestry and Forestry Research in the Sahel: An Overview. 27 pp.

A background document to support the Fuelwood Research Implementation Plan. Examines the status of fuelwood production research in the Sahel region of West Africa.

Bromley, Daniel. 1982. Economic Issues in Forestry As a Development Program in Asia. 21 pp.

Examines the economic issues involved with forestry projects, especially as they pertain to the developing countries of Asia.

Bromley, Daniel W. and Mitchell, Donald. 1985. Agriculture/Forestry Opportunities for the Agency for International Development. 68 pp.

An examination of existing agriculture/forestry linkages within AID, as well as a proposed program to improve linkages designed to provide missions and less developed countries with technical assistance and research and training, as well as institutional assistance in agro-forestry.

Clement, Peg. 1984. Food Aid and Forestry--PL-480-supported Forestry Projects World-Wide. 87 pp.

An inventory of forestry projects worldwide supported by U.S. government food aid programs. Specific projects or activities are discussed by country and summarized according to Title I/III concessional sales and the Title II Food-for-Work Program, including U.S. commitments to the World Food Program and research grants.

Donovan, D. G. 1984. Overview of Forestry Research in Indonesia. 56 pp.

A description of ongoing research programs in forestry in Indonesia, plus an assessment of future research needs.

Donovan, D. G. 1985. End of Tour Report: Asian Regional Forestry Advisor, 1982-1985. 99 pp.

A summary of the accomplishments of the Asia Regional Forestry Advisor during the period from 1982 to 1985.

Durst, Patrick. 1983. Forestry-related Implications of AID's Private Enterprise Initiative. 17 pp.

Lists 105 private enterprise projects with components that have a direct or indirect impact on forestry and wood-using businesses.

Forestry Support Program. 1982. A Draft Survey of Information Available to Consultants Working in Tropical Forestry Projects. 20 pp.

Paper presented at the Society of American Foresters Annual Convention, World Forestry Committee, Cincinnati, Ohio, in September 1982.

This working draft is presented in four sections: (1) a "walking tour" of Washington area libraries for the visiting consultant and others; (2) a list of information and documentation services; (3) other items of possible interest in the Washington area; and (4) "If on your way to Latin America..."

Forestry Support Program. 1983. Collaboration Between AID and U.S. Forestry Schools. 18 pp.

Reports on the discussion that took place in August 1983 on identifying specific mechanisms for strengthening collaboration between AID, FSP, and the various forestry schools and colleges.

Forestry Support Program. 1983. The AID Forestry Community. 10 pp.

This tally of the AID forestry community covers degreed foresters and closely related natural resources specialists working almost entirely on forestry activities. The list includes AID employees, both in the USA and overseas, as well as contractors and host country nationals serving on AID staff.

Jackson, J. K.; Taylor, G. F.; and Conde-Wane, C. 1983. Management of the Natural Forest in the Sahel Region. 91 pp.

A state-of-the-art description of the management of the natural forest in the Sahel Region of West Africa. Condition of natural forest lands both under government management and in the "commons" is discussed, followed by an assessment of inventory techniques, products and markets, management plans, fire protection, livestock use, and trespass in that forest. Six species

agglomerations with special management consideration are examined, as are the economic, social, legal, administrative, and research considerations of management. The report also covers possibilities for the future of natural forest management in the Sahel and makes a list of recommendations for improved management and research in the region.

Kelly, Richard T. 1984. Profiles of J.S.A. Forestry Schools and Consortia. 314 pp.

Provides concise information about forestry educational programs and courses offered by U.S. forestry schools and colleges (in binder format).

Kernan, H. S. and Resch, T. M. 1984. Forestry for Chad and the USAID Role: Report of the Forestry Assistance Team, August 20--September 29, 1984. 23 pp. (Rapport disponible aussi en Francais.)

Impeded by Chad's 20 years of civil war, the Forestry Assistance Team provided a review and analysis of the forestry situation in Chad, along with recommendations for the Government of Chad and the AID mission regarding the forestry sector in that country.

Kunkle, S. K. 1981. Improving Linkages of Forestry Professionals with USAID's Forestry Programs--The U.S. Connection. 8 pp.

Paper presented at the Society of American Foresters National Convention by the Joint Technical Session of the International Forestry Working Group, the World Forestry Committee, and the

International Society of Tropical Foresters.

This paper discusses the new interest in world forestry problems and briefly looks at efforts being made to involve U.S. foresters in these activities.

Laarman, Jan G. 1983. Government Incentives To Encourage Reforestation in the Private Sector of Panama. 51 pp.

This study concentrates on incentives to encourage the private sector to promote the establishment of industrial forest plantations. Three strategies are presented: (1) policy reforms affecting timber concessions and timber cutting rights; (2) incentives that could be used to overcome the private sector's lack of knowledge about forest plantation investment opportunities; and (3) incentives that could be used to overcome the private sector's lack of financial interest and technical ability in this area.

Laarman, Jan G. and Dutrow, George F. 1984. Private Enterprise Initiatives for International Forestry Development. 66 pp.

A collection of 12 papers discussing ways in which AID can promote indigenous private enterprise in the forest-based sectors of developing countries. These papers include discussions of private sector incentives, the role of the public sector, and possibilities for joint enterprises. They also outline needs for private enterprise, management training, international trade, and technology transfer; describe the methodology of wood products assessments; and analyze financial incentives programs.

Lueschner, W. A.; Adams, R. E.; and Stevens, M. E. 1984. The Interfacing of Forestry into Nepal's Development Planning. 18 pp.

Presented at 13th Annual Conference on South Asia, November, 1984.

Report on how forestry activities were incorporated into Nepal's development planning. The paper points out that foresters, in collaboration with local people, have agreed to a plan of action, have adapted that plan to local policies, and are enacting sound forest management laws.

Lundberg, Paul A. 1983. Public Sector Forestry Projects Funded by the U.S. Agency for International Development. 20 pp.

An overview of forestry project activity funded by AID, along with a list and brief description of projects by region and country. The report is limited to public sector projects and does not try to cover support to private forest enterprises or centrally funded research and support projects.

Lundberg, Paul A. 1985. Research, Training, and Technical Assistance Components of AID Forestry Projects. (In draft)

An internal document still in draft form that should be updated and completed before 1986.

Poulton, C. E. 1982. Effective Resource Inventory in the Sahel: Planning, Implementation, and Utilization. 49 pp.

An issue paper prepared for a Sahel Resource Inventory and Mapping Workshop and elaborated on such issues

as: (1) low level of information use; (2) inadequate project follow-through; (3) inadequate host country involvement; (4) levels of inventory necessary; (5) donor coordination; (6) selection of appropriate technologies; and (7) comparability of products and effective utilization.

Qureshi, Ata H. 1982. Bilateral and Multilateral Donor Assistance to Pakistan and Its Nationally Supported Developmental Programs in the Forestry Sector. 102 pp.

Produced as a support document for designing AID's Pakistan Forestry Planning and Development Project. It covers continuing and planned bilateral and multilateral forestry projects, AID's Bureau for Private Enterprise Private Sector Mobilization Project, and Pakistan's domestic forestry development programs. In addition, it provides a description of the organization of forestry efforts in Pakistan, as well as a description of Pakistan's forests and information about the country's important forest trees.

Resch, T. M. 1981. Somalia, Forestry and Natural Resources Sector Analysis. 14 pp.

A background document that later became the model for Somalia's first country development strategy statement (CDSS) after the AID program began in 1981.

Resch, T. M. 1984. The Forestry Support Program: Where It's Been, Where It's Going, and How It Can Help You. 17 pp.

This paper, presented at the AID Africa Bureau Forestry Program Evaluation Workshop, Lome, Togo, May 7-11, 1984, details the history and future of the Forestry Support Program's activities

in Africa in support of AID's forestry efforts there. It also describes the support services that the Forestry Support Program provides.

Rose, D. W. 1984. Survey of Data Base Activities and Several European Agencies--Recommendations and Strategies for AID's F/FRED Project. 25 pp.

Reports on Forestry Sector data base activities of the Overseas Development Administration (ODA), Great Britain; the Commonwealth Forestry Institute (CFI), Oxford, England; Loughgell Research Station and others, Ireland; FAO, Rome, Italy; and Gesellschaft fur Technische Zusammenarbeit (GTZ), West Germany.

SDPT/FORESTRY SUPPORT PROGRAM. 1982. Sahel Resource Inventory and Mapping Coordination Workshop: Workshop Recommendations, Bamako, Mali, May 20-24, 1982. 29 pp.

Workshop recommendations and a summary of papers presented.

Sherwin, Jennifer. 1984. The Job Seekers Guide to Opportunities in Natural Resource Management for the Developing World. (Undertaken in cooperation with the International Institute for Environment and Development.) 51 pp.

A catalog of government agencies, private voluntary organizations, consulting firms, forest industry, and universities with a history of hiring people for international natural resource management positions. In addition to a special section discussing 17 foundations offering fellowship opportunities, the catalog also con-

tains an annotated bibliography that lists publications to assist in job hunting in international natural resource management.

Society of American Foresters. 1984. Assessment of USAID's Forestry Activities in Institutional Mechanisms, Private Enterprise, and Training, Education, and Research. 46 pp., plus appendixes.

A study of mechanisms that AID uses to interact with national and international organizations in implementing its programs. The report also covers existing and potential private-enterprise activities related to AID's forestry programs, as well as existing and potential linkages between AID and U.S. educational institutions.

Stevens, M. E. 1983. Do We Need to Teach Tropical Forestry in the Tropics? (Presented at Society of American Foresters National Convention.) 4 pp.

Tropical forestry courses taught in a temperate climate do not prepare the young professional for work in tropical or subtropical developing countries; to work in the tropics, forestry students must do at least part of their training in the tropics.

Stevens, M. E. 1983. Training Strategy: Regional Tropical Watershed Management Project (ROCAP). 34 pp., plus appendix.

A degree and nondegree training agenda was designed for the Central American countries and Panama Region to help solve the common deficiencies restricting the abilities of national governments to properly manage their watersheds.

USAID. 1982. Forestry Sector Development Project for Ecuador. 65 pp. with appendixes

A proposed project to enhance public and private sector institutional capacity to rationally use Ecuador's forest resources and to protect the country's remaining natural forests and watersheds. The report also describes a combination of research, demonstration, and training components.

USAID and The Government of Kenya. 1983. Proceedings of the National Workshop on Strengthening Forestry Research in Kenya. 210 pp.

A collection of papers presented at a short course on forestry research networking and training that was held in Eldoret, Kenya, November 1-4, 1983. The proceedings include the recommendations on steps to be taken to improve forest research institutions and forestry research networks in Kenya.

Weber, F. 1984. Nursery Production of Tree Seedlings in Yemen (YAR). 29 pp.

Response to a request by the Government of the Yemen Arab Republic for guidance on how to increase production of forest tree seedlings raised in government nurseries. The report concentrates on streamlining management, with an emphasis on low production costs. It also includes information on nursery location, species selection, and tree improvement.

Weber, F. 1982. Review of CILSS Forestry Sector Program Analysis Papers. 62 pp.

An assessment of a series of forestry sector analysis papers on West African countries in the Sahel, with a discussion of the relative success--or failure--of a large variety of forestry intervention in the region.

Weber, F. 1984. Yemen (YAR) Forestry Sector Programming: Issues, Constraints, and Potential. 14 pp.

The status of forests in the Yemen Arab Republic is described and basic program considerations (with an emphasis on conservation of soil, water, and vegetation) are given that must be taken into account if these efforts are to make a lasting contribution. The report also outlines a strategy for AID forestry assistance in Yemen.

Yavorsky, J. M. 1983. Development of Forestry Education in Honduras. 12 pp., plus appendixes.

A long-term strategy for supporting the Honduran National Forestry Sciences School as a regional technical school. The paper makes specific recommendations for immediate and continued support by national agencies and international donors to meet the regional needs for forestry technicians, as well as the short-term training needs of working professionals and technicians.

Youngs, Robert L.; Borlaug, N. E.; Butterfield, S. E.; Gregerson, H. M.; Johnson, N. E.; and Wadsworth, F. H. 1985. An Assessment of the USAID Forestry Program: Needs and Opportunities. 32 pp.

An overall assessment of AID's forestry program and a list of recommendations for changes that would allow forestry to make a greater contribution to the economic and social development of less developed countries.

Zimmerman, R. 1984. Discussion Paper for the Workshop on Natural Resource Interactions in Eastern and Southern Africa Held in Nairobi, Kenya, April 2-4, 1984, in Cooperation with AID/REDSO/ESA. 52 pp.

A discussion paper done in preparation for a workshop concerning the interrelationships between forestry, agriculture, and the environment.

Appendix D

FSP Overseas Technical Consultations by Region from FY 1983 to FY 1985

AFRICA

<u>FY 1983 CONSULTATIONS</u>				
<u>COUNTRY</u>	<u>DATES</u>	<u>NAME</u>	<u>AFFILIATION</u>	<u>PURPOSE OF TRIP</u>
Gambia	10/18-10/23	Fred Weber	Contractor	Review of CILSS Forestry Sector Program analysis papers.
Kenya	1/10-1/29	Mervin Stevens	FSP	FAO/Assistance in conducting Watershed Management Training Course.
Kenya	6/28-7-22	George Armstrong	Contractor	Provide advice on a workshop for strengthening forest research in Kenya.
Mali, Niger, Burkina Faso, Senegal	2/20-3/31	James K. Jackson	Contractor	Assess status of national forest management in the Sahel, make recommendations for management, and identify research needs.
Senegal	1/24-2/5	Timothy Resch	FSP	Evaluate the Senegal Fuelwood Production Project.
Uganda	6/26-7/10	Muhammed Chaudry	OICD	Attend an International Union of Forestry Research Organizations (IUFRO) meeting on forest products research.
<u>FY 1984 CONSULTATIONS</u>				
Chad	8/13-9/30	Henry Kernan	Contractor	Provide advice on AID's strategy for forestry programs in Chad.
Chad	9/6-9/30	Timothy Resch	FSP	Provide advice on AID's strategy for forestry programs in Chad.
Kenya	3/14-4/16	Robert Zimmerman	Contractor	Provide advice on natural resource interactions in East Africa.
Kenya	10/20-11/6	Roger Bay	USFS	Participate in a workshop to identify forestry research priorities in Kenya.
Kenya	10/24-11/19	George Armstrong	Contractor	Participate in a workshop to identify forestry research priorities.
Morocco	5/12-6/1	Timothy Resch	FSP	Evaluate Forestry Activities Assisted by the Food for Peace Program (PL-480).

*This table does not include the numerous technical assistance trips made by personnel identified by FSP but funded by other sources (AID missions and bureaus).

APPENDIX D (continued)

AFRICA (Continued)

<u>COUNTRY</u>	<u>DATES</u>	<u>NAME</u>	<u>AFFILIATION</u>	<u>PURPOSE OF TRIP</u>
Togo	5/3-5/12	Timothy Resch	FSP	Present paper and participate in forestry program evaluation workshop for Africa.
Togo	5/5-5/12	John Heermans	Contractor	Provide advice on forestry program evaluation workshop for Africa.
Togo	5/5-5/12	Fred Weber	Contractor	Provide advice on forestry program evaluation workshop for Africa.
Zimbabwe	3/30-4/28	Gene Namkoong	USFS	Provide advice on forest genetics research.
<u>FY 1985 CONSULTATIONS</u>				
Gambia	7/25-8/9	Timothy Resch	FSP	Evaluate the Gambia Forestry Project.
Kenya, Rwanda, Ivory Coast, Niger	4/29-5/17	Timothy Resch	FSP	Assess status of AID Forestry Activities in Africa.
Niger	2/18-3/5	Timothy Resch	FSP	Assess status of CARE/FVA/FSP funded evaluation study of the Majjia Valley windbreaks establishment and make recommendations for completion.
Senegal	8/19-9/1	T. Geary, C. Hodges	FSP/USFS	Investigation of Casaurina Dieback.
Somalia	3/24-4/11	Timothy Resch	FSP	Evaluate the CDA Refugee Forestry Project.
Somalia	9/9-9/20	M. McGahey	Contractor	Evaluate AID forestry projects.

APPENDIX D (continued)

ASIA

<u>COUNTRY</u>	<u>DATES</u>	<u>NAME</u>	<u>AFFILIATION</u>	<u>PURPOSE OF TRIP</u>
<u>FY 1983 CONSULTATIONS</u>				
Indonesia	4/4-4/9	Thomas F. Geary	FSP	Meet with the regional forestry advisor on the design of the ASEAN project.
Pakistan	3/18-5/8	Paul Duffy	USFS	Participate in the design of the Pakistan Forestry Planning and Development project.
Pakistan	5/20-6/5	Mervin Stevens	FSP	FAO Design of Extension Forestry Project.
Philippines	3/1-4/4	Thomas F. Geary	FSP	Assist in the design of the Association of Southeast Asian Nations (ASEAN) Watershed project.
<u>FY 1984 CONSULTATIONS</u>				
Burma	9/19-10/19	George Armstrong	Contractor	Agriculture Sector Strategy Review Team.
Egypt	12/4-12/11	Thomas Geary	USFS	Facilitate technical exchange between Israel and Egypt.
Indonesia, Bangladesh, Thailand, Philippines	2/8-4/3	Thomas F. Geary	FSP	Acted as regional forestry advisor while the regular advisor was on leave.
Indonesia, Thailand	4/28-5/29	Franklin Bonner	USFS	Teach a course on forest tree seed physiology.
Indonesia	10/22-11/4	Thomas F. Geary	FSP	Assist in design of Upland Agriculture and Conservation Project.
Pakistan	8/1-11/9	Albert L. Merkel	Contractor	Assist AID mission in implementing the Pakistan Forestry Planning and Development Project.
Pakistan	12/16-12/21	Thomas Geary	FSP	Assist AID in preparing a Request for Proposal for Forestry Planning and Development.
Philippines	10/9-10/21	Thomas F. Geary	FSP	Attend the first ASEAN forestry conference.
Philippines	11/5-11/9	Thomas F. Geary	FSP	Attend the ASEAN forestry program steering committee meeting.
Sri Lanka, India, Thailand	7/7-8/3	Max McFadden	USFS	Attend an IUFRO conference regarding the Forestry/Fuelwood Research and Development Project (F/FRED).

APPENDIX D (continued)

ASIA (continued)

<u>COUNTRY</u>	<u>DATES</u>	<u>NAME</u>	<u>AFFILIATION</u>	<u>PURPOSE OF TRIP</u>
Thailand	4/13-4/21	Max McFadden	USFS	Attend a meeting of Asia regional mission representatives regarding F/P&ED.
Yemen	5/18-6/18	Weber	Contractor	Assess status forest nursery management and tree seedling production.
Yemen	12/11-12/15	Thomas Geary	FSP	Assess needs for forestry assistance.
<u>FY 1985 CONSULTATIONS</u>				
Bangladesh	1/30-2/21	Thomas Geary	FSP	Project Design Team for Homestead Agroforestry Research and Extension Project.
India, Nepal	5/16-5/31	Mervin Stevens	FSP	To teach at UN/FAO workshop on watershed management.
Philippines	4/23-4/25	P. K. Nair	ICRAF	To participate in Asia Regional Agriculture and Rural Development Conference.

APPENDIX D (continued)

LATIN AMERICA

<u>COUNTRY</u>	<u>DATES</u>	<u>NAME</u>	<u>AFFILIATION</u>	<u>PURPOSE OF TRIP</u>
<u>FY 1983 CONSULTATIONS</u>				
Costa Rica	4/4-4/8	John Palmer	FSP	Attend a seminar on AID's natural resource management projects.
Dominican Republic	3/1-3/15	Les Whitmore	USFS	Write National Reforestation Plan.
Haiti, Dominican Republic	4/29-5/10	David A. Harcharik	FSP	Assist AID and the German Democratic Republic with a draft of the project identification document of the new Forestry Sector Development Project.
Haiti	9/23-10/6	David A. Harcharik	FSP	Advise AID grantees on agroforestry technology and review progress to date.
Honduras	9/11-9/24	John Palmer	FSP	Assist with AID's forestry sector development strategy.
Honduras	9/11-10/4	John Yavorsky	Contractor	Evaluate the regional role of the Honduran National Forestry school (ESNACIFOR) and the potential for donor support.
Honduras	10/27-11/27	Ronald F. Billings	Texas	Assist the Honduran forest service in combatting an insect epidemic.
Panama	8/3-8/5	Jan Laarman	Contractor	Evaluate reforestation incentive mechanisms.
<u>FY 1984 CONSULTATIONS</u>				
Costa Rica	1/24-1/28	Mervin E. Stevens	FSP	Discuss agroforestry guidelines.
Costa Rica	4/3-4/7	David A. Harcharik	FSP	Help AID and the Tropical Agricultural Research and Training Center (CATIE) identify new fuelwood research initiative.
Costa Rica	4/23-5/5	John Palmer	FSP	Attend an AID agroforestry course conducted by CATIE in Turrialba, Costa Rica.
Costa Rica	6/3-6/23	Frank Wadsworth	USFS	Assist in the evaluation of CATIE.
Dominican Republic	4/23-5/12	David A. Harcharik	FSP	Assist AID with the development of the Project Paper for the Forestry Sector Development Project.
Dominican Republic	11/30-12/10	John Palmer	FSP	Assist in designing a Peace Corps in-service agroforestry training course.
Ecuador	11/13-11/23	John Palmer	FSP	Assist in developing a cooperative arrangement for short-term technical assistance.

APPENDIX D (continued)

LATIN AMERICA (Continued)

<u>COUNTRY</u>	<u>DATES</u>	<u>NAME</u>	<u>AFFILIATION</u>	<u>PURPOSE OF TRIP</u>
Guatemala	3/17-9/21	Howard Daugherty	Contractor	Review the environmental profile of Guatemala and assist the local university in designing a natural resources management curriculum.
Honduras, Costa Rica	1/19-2/4	John Palmer	FSP	Assist in writing a project identification document for the forestry sector development project.
Honduras	3/19-4/13	George Armstrong	Contractor	Evaluate the Regional Central America and Panama (ROCAP)/CATIE Fuelwood Project.
Honduras	7/24-8/8	John Palmer	FSP	Assist in designing a Peace Corps in-service agroforestry training course and review draft support documents of the forestry project paper.
Jamaica	3/25-3/31	John Palmer	FSP	Assist in evaluating the feasibility of using bagasse and wood for electricity production.
Panama, Costa Rica	4/1-4/7	Max McFadden	USFS	Consultation with organization that will have possible F/FRED linkages.
St. Kitts	9/4-9/13	John Thames	Contractor	Assist in designing a natural resource management project paper.
St. Vincent, Barbados	3/20-3/27	Mervin E. Stevens	FSP	Attend a Caribbean foresters meeting on watershed Management.

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Bolivia	6/3-6/14	P. Waldo, P. Perez	SCS	Review soil management program in Tarija region.
Costa Rica, Panama	1/14-2/9	Vicente Molinos	SCFER	Forestry Private Enterprise Initiative Market Development Demonstration Project.
Costa Rica	1/31-2/5	Mervin Stevens	FSP	Participate in technical review of CATIE's Agroforestry Instructional Materials.
Costa Rica	5/13-5/18	Dietmar Rose	Contractor	Data Base Management System.
Dominican Republic	1/12-1/24	Robert Spivey	USFS	To advise AID and the Government of the Dominican Republic on Forest Policy and Administration.
Dominican Republic, Haiti	4/7-4/25	Vicente Molinos	SCFER	Forestry Private Enterprise Initiative Market Development Demonstration Project.
Ecuador	6/16-6/23	Muench, Molinos	SCFER	Forestry Private Enterprise Initiative Market Development Demonstration Project.

APPENDIX D (continued)

LATIN AMERICA (Continued)

<u>COUNTRY</u>	<u>DATES</u>	<u>NAME</u>	<u>AFFILIATION</u>	<u>PURPOSE OF TRIP</u>
Ecuador	6/16-6/23	G. Wetterberg	FSP	Forestry Private Enterprise Initiative Market Development Demonstration Project.
Ecuador	8/10-10/30	Earl Alexander	USFS	Watershed Management Planning Team.
Ecuador	10/29-11/24	Vicente Molinos	SCFER	Forestry Private Enterprise Initiative Market Development Demonstration Project.
Haiti	2/17-3/1	Ron Billings	Texas	Bark Beetle Epidemic.
Haiti	8/4-8/17	John Palmer	FSP	Participate in Agroforestry Workshop and review Seed Collection Program.
Honduras	6/15-7/15	Bernhard Ebel	USFS	Honduran National Forestry Science School.
Mexico	1/28-2/1	John Palmer	FSP	U.S.-Mexico cooperation on reforestation.
Mexico	5/6-5/11	John Palmer	FSP	U.S.-Mexico cooperation on reforestation.
Mexico	6/16-6/28	Timothy Resch	FSP	Participate in the UN/FAO consultation on the role of forestry in combatting desertification.
Mexico	10/3-10/10	John Palmer	FSP	Participate in the North American Forestry Study Group.
Panama	11/8-12/8	G. Cintron-Molero	Contractor	Advise RENARE on mangrove management.
Peru	1/9-1/23	J. Perkins	USFS	To develop training program on fire control.
Peru	4/17-5/25	J. Perkins	USFS	To teach fire control course.