USDA Forest Service International Programs

International Forestry Timeline

Conservation is clearly a world necessity...:"

Gifford Pinchot 1940 Proceedings of the Eighth American Scientific Congress, Vol. V Agriculture and Conservation, Department of State 1942:27

LIEUT. COL. GRAVES IN FRANC

The Chief Forester of the United States went abroad shortly after this country entered the war to organize the work the American foresters were to do in helping to get out the timber needed for war purposes.

A fullwood crew of Company A, 555rd Engineers, Service Battalion, assigned to the Wortumier Estate.

ORIGIN STORY: INTERNATIONAL ROOTS OF THE AGENCY

The Forest Service has been involved in international activities since 1903 with the founding of the Luquillo Forest, now the Caribbean National Forest in Puerto Rico. The Forest Products Lab in Madison, Wisconsin, began a program of tropical wood research in 1910, and the McSweeney-McNary Act of 1928 authorized the establishment of a forest experiment station, now the International Institute for Tropical Forestry, in Rio Piedras, Puerto Rico.

General Overview of International Forestry (IF)

1905-1932 IF focused on the US and World consumption and management of forest resources (economics of forestry) and concern about a potential timber famine.
1905-1945 focus of IF was on tropical forest research and concomitant sharing of information across national boundaries as foresters searched elsewhere for marketable timber.
Post WW II focus of IF broadened to include technical assistance through the FAO and the IUFRO.
1960 – 1990 Working in international forestry through trilateral agreements with USAID and the Peace Corps in the early 1960s, through various administrations and world disasters and global emergencies.
1991- International Forestry was elevated to the status of a Deputy Chief under Jeff Sirmon. Increased attention to Tropical Forestry and loss of forest resources in tropical countries such a Indonesia, Brazil, and Mexico, as well as Latin America in general, Asia and central Africa. As a result of the collapse of the Soviet Union, additional resources were directed to Russia. More focus on global ecosystems. (In the New Clinton Administration there were no funds for "Forests for the Future" in the Forest Service budget. The pressures to control Federal spending were so great that new initiatives in the international arena had little chance of success. Furthermore, the record Midwest floods and the increased funding needs to implement the President's Pacific Northwest Forest Plan took much higher priority in the Interior)(Jeff Sirmon 1993 interview).
1997 IF organization shifted to Staff position reporting to the Chief.
2000 + As a result in climate change and global warming, increased emphasis on global disaster assistance and support. Additional focus on preserving biodiversity.
2010 + focus on landscape (in lieu of individual local projects)
2010 + TO BE UPDATED!

Current Areas of Focus: Climate Change – Illegal logging – Disaster Assistance – Migratory Species – Urban Outreach
Current Geographical Areas of Focus: African/Middle East – Asia Pacific – Latin America/Caribbean/Canada – Russia/Europe/Eurasia

1900 – 1939

1898 Spain cedes the Philippines to the United States.

1900 George Patrick Ahern organized and became director of Philippine Bureau of Forestry (at the suggestion of Pinchot). The Crown forests included 40-60 million acres of forested lands that were managed by the Inspeccion de Montes. Ahern's principal aims were: (Utilization of a Tropical Forest by George Ahern, Special Report of the Forestry Bureau, Philippine Islands, July 30, 1901, 1-16, 48-54.

1.) Carry on research into the nature of woods, their occurrences, and their commercial characteristics.
2.) Take a forest inventory in order to develop plans for the tracts.
3.) Introduce and encourage modern logging and milling methods.
4.) Make plans for the local use of the forests.

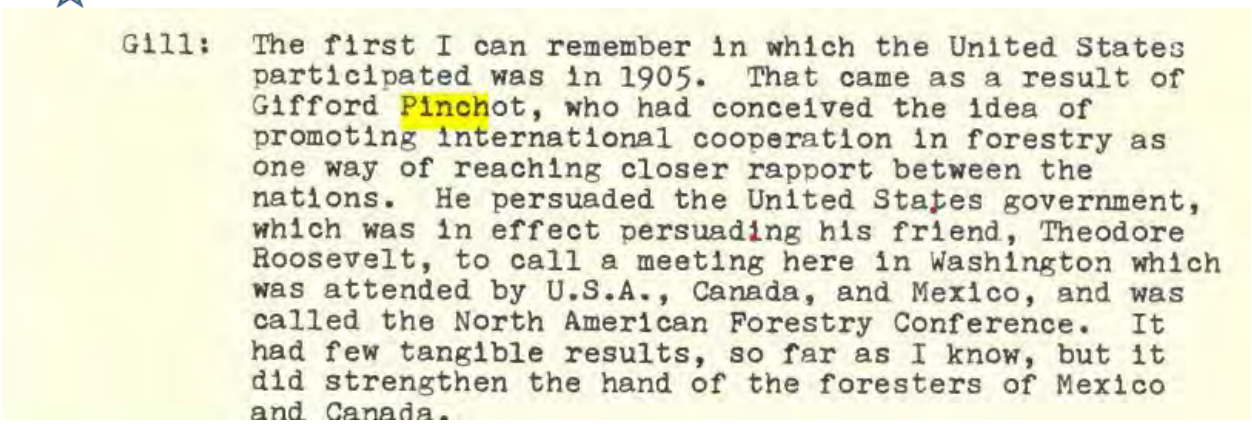
5.) Carry on a program of forestry education and propaganda.

1902

- Bernard E. Fernow publishes ECONOMICS OF FORESTERY: a Reference Book for Students of Political Economy and Professional and Lay Students of Forestry, with a brief overview of international forestry conditions, policy, management, harvesting and reforestation practices, including European, Asian and African countries and colonies. (New York, T.Y. Crowell & co.).
- Pinchot set sail for Philippine trip as requested by George Ahern; "Then we will show you more kinds of timber than you ever dreamed of." (Ahern to Pinchot August 23, 1901)
- He toured forests in Russia and China enroute to the Philippines and arrived in Manilla in October
- In December, he left the Philippines enroute to Japan. Upon arriving in in Nagasaki, he "saw much interesting forest, including pine, & planted against erosion as have granite sand hills…" Steen 2001: 126).

1903 creation of the 12,000 acre Luquillo Forest Reserve.

1904 Bernard Fernow presented a series of 25 lectures as part of the regular course of instruction to the Yale School of Forestry.



Gill: The first I can remember in which the United States participated was in 1905. That came as a result of Gifford Pinchot, who had conceived the idea of promoting international cooperation in forestry as one way of reaching closer rapport between the nations. He persuaded the United States government, which was in effect persuading his friend, Theodore Roosevelt, to call a meeting here in Washington which was attended by U.S.A., Canada, and Mexico, and was called the North American Forestry Conference. It had few tangible results, so far as I know, but it did strengthen the hand of the foresters of Mexico and Canada.

SUMMARY OF THE CAREER OF TOM GILL, INTERNATIONAL FORESTER, An Interview Conducted by Amelia R. Fry Berkeley, 1969: 28).

Both Pinchot and Roosevelt held that international cooperation in managing natural resources, including forests, might remove one of the most dangerous obstacles to permanent world peace (Gill 1960: 286).

1905 *Proceedings of the American forest congress held at Washington, D.C., January 2 to 6, 1905, under the auspices of the American forestry association (LOC).

1907 Fernow published the 25 lectures as a textbook for future use entitled *A Brief History of Forestry*. The book includes brief overviews of forestry history and evolution in a number of countries, including Germany, Austria-Hungary, Switzerland, France, Russia, Finland, the Scandinavian States (Norway, Sweden, and Denmark), the Mediterranean Peninsula (Turkey, Bulgaria, Servia [sic], Montenegro, Roumania [sic], and Roumelia [sic]), Greece, and Great Britain and her colonies (India, Canada and Newfoundland and a number of other colonies and possessions), Japan, Korea and the United States, including Porto Rico [sic] the Sandwich Islands (Hawaii) and the Philippines. There was no mention of any of the South American countries.

1910 Eloise Gerry begins work at FS Forest Products Lab.

Dr. Eloise Gerry

Eloise Gerry had started work with the Forest Products Laboratory in 1910, the same month the lab officially opened. Originally from Boston, Gerry earned degrees from Harvard University's Radcliffe College for women, where she had specialized in the anatomy of wood and trees, and specifically their physiological responses. She was hired by the Forest Service's new Research wing at the instigation of her major professor Edward Jeffry. Although they would have much preferred a man for the position of microscopist, no man was trained or interested so the new professional science-oriented Forest Products Lab in Madison, WI was forced to hire her.

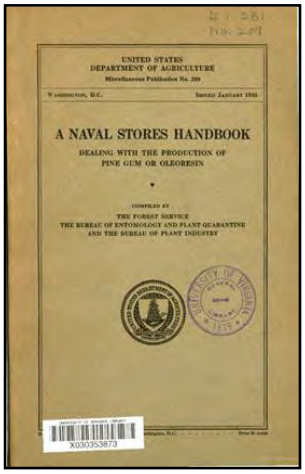
Always peering through her microscope, she studied the relation between wood properties, tree growth conditions, and preservative treatments. She was such an expert on her work, she could identify almost any specimen of wood submitted to the FPL using an index of slides she had devised. During her initial research at the Forest Products Lab, she focused on pine trees as part of the Naval Stores and their wise use in turpentine production. Insisting on working directly in the field much to the chagrin of her supervisor at the time, they eventually relented and in 1916 she traveled to the pinelands of Mississippi to collect her own samples and processed them in the field. Eventually she conducted field work in the national forests of Louisiana, Mississippi, Alabama, Florida and Georgia on foot, horseback and Model T. Her conclusions saved the turpentine industry by documenting less scarring on the pine trees during the tapping process producing healthier longer-lived trees and more turpentine.

The special needs of wood research during WWI required her to switch to other research projects involving boxes and packaging, aircraft construction and training military personnel.

In 1935 a summary of the naval stores/pine tar research was published in the comprehensive *Naval Stores Handbook*. *The Naval Stores Handbook* also includes lengthy discussions of research in the Maritime forests of France, India and a number of other European, Asian and Southeast Asian countries.

After the US finally entered WWII FPL leadership anticipated a need for instructional courses in packaging. World War I had raged throughout Europe, but the second world war was global in its needs; Gerry was put in charge of researching and preparing training materials to be used in climates as diverse as of Alaska to the tropics including boxes and crates, kiln drying and seasoning, and aircraft inspection. She was also involved in other research focused on alternative materials such as Douglas fir bark to be used in cork manufacture.

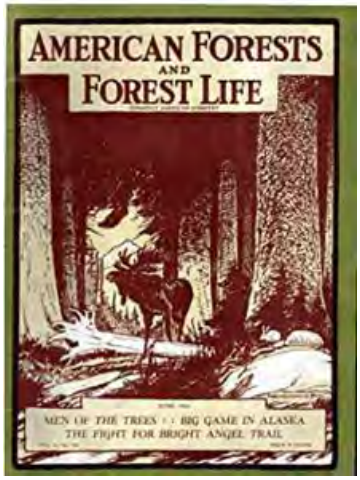
Late in her career, Gerry became known as something of a filing cabinet on foreign woods. She published fifty-six exotic wood investigations in FPL's *Foreign Wood Series* beginning with "agba" and ending with "wusizi." Although she had resisted specializing in foreign woods, after the 1945 retirement of Dr. Warren Brush, she became the international expert on the properties of commercially used foreign timber species.


UNITED STATES
DEPARTMENT OF AGRICULTURE
Miscellaneous Publication No. 209

A NAVAL STORES HANDBOOK

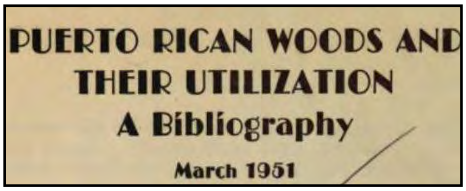
DEALING WITH THE PRODUCTION OF
PINE GUM OR OLEORESIN

COMPILED BY
THE FOREST SERVICE
THE BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
AND THE BUREAU OF PLANT INDUSTRY



(Contributed by the USDA National Agricultural Library)

She was also lead author of Puerto *Rican Woods and Their Utilization* in 1951. She collected the references and Frances Flick of the US Department of Agriculture Library provided additional source checking and formatting prior to publication.


PUERTO RICAN WOODS AND
THEIR UTILIZATION
A Bibliography
March 1951

Dr. Gerry also delved into conservation education. Like many others, she felt that reaching out to the children would instill a conservation ethic in them early and enable them to make the right decisions on the use of natural resources as adults. Toward that end, in addition to sharing her telescope with school-aged children, she wrote a number of short stories for children under the title of, "Pine-Burr Stories," that were published in American Forests and Forest Life.

Where others at FPL signed their names with only first and second initial, Dr. Eloise Gerry always signed her name Dr. Eloise Gerry – documenting for others that she was a woman. Throughout her 44-year career, she always encouraged other women to get involved in science, research and/or a career in the Forest Service. Dr. Gerry retired from the Forest Service 1954.

After her death in 1970, she left much of her estate to a Sigma Delta Epsilon scholarship fund, an organization for graduate women in science.

1910 Raphael Zon published The Forest Resources of the World describing the condition and the amount of forested lands of various countries and continents around the world.

1910 Edward M. Munns was the first US Forest Service staff member to attend the IUFRO meeting which was held in Brussels.

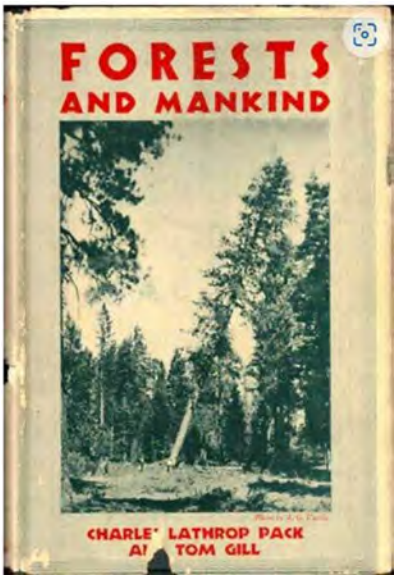
1911 Louis Murphy and J.G. Peters recommended the creation of the Pórto Rico Forest Service.


IUFROCongress Brussels 1910

1915 Tom Gill begins work with the Forest Service

Tom Gill graduated from Yale University with the degree Master of Forestry in 1915 after which he began work as a US Forest Service ranger in Colorado. Following World War I, when he served as a pilot and instructor in the Army Air Service he was again employed by the Forest Service as forest supervisor of the Black Hills National Forest at Deadwood, South Dakota.


Forest Ranger - 1916



In 1922, he was transferred to Washington, D.C. where for the next three years he was in charge of information for the Branch of Public Relations including relations with newspapers; editing and writing magazine articles; writing and directing motion pictures; and preparing speeches and articles for the chief forester. As result of his public relations experience, he was appointed associate editor of *American Forests and Forest Life* by the American Forestry Association. A year later he became executive director and forester of the Charles Lathrop Pack Forestry Foundation in Washington, D.C., a position he held until the Foundation's liquidation in 1960.

Tom Gill, a quiet man, possessed the gift of words and was a prolific writer. Much of his work was fiction, stories of adventure involving cowboys, forest rangers, and frontier characters. His 12 books of fiction included *Guardians of the Desert*, *Death Rides the Mesa*, *North to Danger*, *The Gay Bandit of the Border*, and *No Place for Women*. The first book was published in 1930, the last in 1946.

Gill also wrote numerous short stories and serials which were published in leading magazines, such as *Saturday Evening Post*, *American Magazine*, *Cosmopolitan*, and *Reader's Digest*. These novels and articles brought him into contact with a wide variety of editors, columnists, writers, and as well as radio commentators.

But Tom Gill's real passion was in forestry. He was one of the leading drafters of the report establishing the forestry division of the Food and Agriculture Organization (FAO) of the United Nations. He established, financed, and directed as president the activities of the International Society of Tropical Foresters; he won the Sir William Schlich Memorial Medal in 1954; and he participated in the first six of the seven World Forestry Congresses. At the time of his death, he was planning to attend the Seventh Congress in Buenos Aires. Most of the leaders in forestry from other countries were Gill's personal friends, they kept him in close touch with developments in forestry world-wide. Also, a heavy travel schedule throughout the world gave him a

For immediate release

From: Tom Gill,
1214 16th Street, N.W.,
Washington 6, D. C.

INTERNATIONAL SOCIETY OF TROPICAL FORESTERS

In Washington, D. C., on December 18th, 1950, twenty-four foresters met to form the International Society of Tropical Foresters.

The primary purpose of the new organization is to keep tropical foresters in touch with others in their field and with the work they are doing. It will also serve as a clearing house of information on developments and opportunities in tropical forestry, as well as on recent additions to tropical forestry literature. It will be a repository of information on the location and fields of activity of men working in tropical forests or with tropical forest products. It is planned to keep the membership in touch with developments by means of occasional memoranda or news letters. In this way the organization should facilitate contact between occupational opportunities and qualified foresters.

Membership in the society is open to foresters of all nationalities working in all types of tropical forest products, including rubber. No dues are required, and those interested are urged to write Tom Gill, 1214 16th Street, N. W., Washington 6, D. C.

Foresters present at the organizing meeting were: James S. Bethel, J. Willcox Brown, John H. Camp, E. H. Chapman, Hugh H. Curran, Harvey H. Francis, Juan B. Gastambide, Tom Gill, Robert W. Hess, Ralph S. Hosmer, LeRoy W. Huntington, Seth Jackson, Henry G. Kerkam, Robert F. Knuth, Elbert L. Little, Jr., C. B. Mailfold, K. H. Mayer, Richard A. Norris, Barrington Moore, Arthur F. Muenchler, G. F. Spangler, G. H. Trimble, Jr., Marshall N. Turner, Frederick H. Vogel, George F. Walker, and J. J. Zirkle, Jr.

first-hand acquaintance with the forests of other countries. In 1953 his outstanding contributions to Latin American forestry were recognized when the University of the Andes in Venezuela conferred on him an honorary doctorate. Everywhere he went he studied the forests for scientific interest, and, with his flair for the dramatic, observed the people and settings for use in his fiction. His particular interest was tropical forestry. McMillan Publishing Company published his *Forests and Mankind* in 1930—a book co-authored with Charles Lathrop Pack. McMillan also published Gill's *Forest Facts for Schools* which was the most widely distributed schoolbook on forestry in its day. His *Tropical Forests of the Caribbean (*1931) was until then the definitive work on the area. With Ellen Dowling he compiled a book in 1943 for the American Tree Association called the *Forestry Directory*. Gill was particularly interested in land use in Mexico and in 1951 wrote *Land Hunger in Mexico*. (Abstracted from an article by A.J. McClure, Journal of Forestry. 71(11):716-7. 1973).

From Frank Wadsworth 1993: Tom Gill is a person who I thought more of than a lot of other people. There were people, in fact even Bert Harper, at times were vexed with Gill. He saw him as a kind of fat and sassy kind of guy who was living under the umbrella of a wealthy patron and because he had a flair for writing he started this International Society of Tropical Foresters and went around meeting the famous forestry people and would write something up which was kind of visionary. Yet Tom Gill went to a lot of these meetings, FAO, and he went to a meeting in Caracas of the Latin American Forestry Commission. Gill had good insight, he was smart, he separated the weak from the chaff, and he often could sum up a situation better than anybody else. One of the things that he did was the Lathrop Pack Foundation course for student thesis write ups. And the British in Oxford, that's still a ritual, every year they have the Lathrop Pack contest for student reporting on zone tropics. And I published some of this stuff, the students were good. I got it one year. He was ahead of his time. His secretary was the wife of a Forest Service employee who'd just retired, and she had all his records so that when they started up the international society after a lapse they were able to get the pass and wrote it up as to how it happened. Gill, of course, wrote the book in the 1920's about tropical forest in the Caribbean.

…Gill was very famous for making quotable statements. I think he saw it that way, he tried to make it sound dramatic the way he talked. He had a glamorous picture of himself taken beside a big tree in a forest somewhere in Jamaica in that book of his on the tropical forest of the Caribbean. I think he was not well understood abroad, except among the British. He and Champion were friends.

1917 Puerto Rico becomes a US territory and first Forest Supervisor sent to Puerto Rico.

1917-1919 America in WW I

May 1917 the 10th Engineers were formed as a forestry regiment with the assistance of the FS Chief Graves.

Chief Graves, WW I and the 10th [and 20th] Engineers in France:

The story of 18,000 men who went into the Army to cut lumber in France during the Great War:

American Lumberjacks in France.

"We're not much on drill, but we're hell on cutting down trees."

"Nothing illustrates the far-reaching economic demands of the Great War more sharply than the enormous use of timber in almost every phase of military operations. From the plank roads at the front, the bomb proofs, the wire entanglements, and the ties needed for the rapid repair or construction of railroads upon which military strategy largely depended, to the hospitals, warehouses, camps, and docks at the base ports, timber was in constant demand as a munition of war."

So begins Assistant Chief of the Forest Service William B. Greeley's 1919 account of "The American Lumberjack in France." The American Expeditionary Force (AEF) had been in France but a short time when General John J. Pershing telegraphed an urgent appeal for more lumber, but because of a shortage of vessels for shipping vessels, the alternative was the formation of a special regiment to supply the Allied forces with timber products from French forests. The 10th Engineers (Forestry) was rapidly organized, and the Forest Service responded to the emergency by providing its best men to organize and administer this unique force. The 10th Engineers was formed mostly from Forest Service personnel stationed in the west. Arthur Ringland was commissioned Captain and other FS personnel were officers as well; other officers were executives from the lumber industry. It was not necessary to give the men of the 10th and 20th Regiments any special training in forestry or lumbering methods before they left the United States because they were picked men chosen because of their skills in the lumber industry and clerical workers were selected because of their actual knowledge of keeping lumber accounts and similar information. So, during their stay at American University camp the men were only given what military drill was required for administrative and disciplinary purposes.

Forest Service Chief Graves and later Assistant Chief Greeley traveled to France to begin the laborious process of acquiring standing timber to be used by the AEF. The Americans were to use French timber because the British government in particular wanted to decrease the transport of lumber and forest products across the channel to France, presumably because of a shortage of vessels for shipping.

General Pershing quickly realized the 10th would be insufficient for the size force he envisioned for the AEF. As a result, General Order No. 108 was issued on August 15, 1917, authorizing one regimental headquarters, 10 battalions of forestry engineers of three companies each, and nine engineer service battalions of four companies each.

AMERICA'S BEST-KNOWN FORESTER SOLDIER

Lieutenant-Colonel Henry S. Graves, as he appeared on shipboard after several months of service in charge of Forestry operations in France for the American Expeditionary Forces.

LIEUT. COL. GRAVES IN FRANCE

The Chief Forester of the United States went abroad shortly after this country entered the war to organize the work the American foresters were to do in helping to get out the timber needed for war purposes.

During World War I first Major, then Colonel Greely spent the next two years supervising an American forestry engineers' regiment in France which operated 95 mills providing lumber for the needs of the Allied armies. The French government made the regiment's work possible, by authorizing the cutting in various forests across, although often with arduous and exhausting negotiations. Necessary forest products included piles for seaports to duckboards in trenches; needed timber-related skills include sawmill operators, loggers, sawyers and saw filers, teamsters, blacksmiths, carpenters, millwrights, motorcycle and trucker operators and mechanics and all-round lumberjacks. Colonel Graves reports one of the men to have remarked after they got to the other side: "We're not much on drill, but we're hell on cutting down trees."

The Tenth Engineers arrived at Nevers, France on October 9, 1917. The well-laid, if harried preparations by the advance party facilitated the dispersal of the units to their field assignments and by late November production operations were underway. The first operations were started in the pineries of the Landes in the valley of the Loire, and in the softwood forests of the Vosges and Jura mountains. Many of the operations were started temporarily with small mills obtained in France, which were overhauled and made to increase their rated capacities The forestry troops sawed their first log in a French mill on November 25, and two days later the first American mill began operations near Gien on the Loire River. The rapidity with which the forestry troops succeeded in supplying the Allied armies with urgently needed dock planking, piling, railroad ties, fuel wood, barbed wire entanglement stakes, and building materials was due in large part to Graves' and Greeley's untiring efforts in acquiring the needed timber.

General Pershing's original request for forestry troops called for sufficient numbers to provide 25,000,000 board feet of lumber per month. One year later the estimated needs of the expanding American Expeditionary Force had soared to over 73,000,000 board feet per month. The lumberjack soldiers, eventually 18,543 strong, through extraordinary effort and increasing demands produced record-breaking amounts of board feet. Mills built to put out 10,000 board feet in a ten-hour period produced upwards of 50,000 feet and a " twenty-thousand" mill won honors with a cut of over 175,000 board feet in less than twenty-four hours. Mills often ran day and night, utilizing double 10-hour shifts, sometimes operating three eight-hour shifts.

Equipment shortages necessitated constant improvisation. Skidding operations were initiated with horse harnesses fashioned out of ropes and old sacks and crude bridles made of nails and wire although manpower was often substituted for horsepower. Mills were dismantled, moved several miles, and quickly re-set in order to be operating again within forty-eight hours. When preparations for the St. Mihiel and Argonne drives demanded large quantities of ties, planks, and entanglement stakes the men responded by hewing ties after regular working hours and laboring long hours into the night repairing railroad track and mill breakdowns.

Having arrived in France in October 1917, by the following January 10 mills were in operation. By the end of February 1918, twenty-one mills were operating and produced during the month:

lumber, 2,892 MBM
piling, 720 pieces
standard gauge ties, 22,345 pieces
small ties, 14,856 pieces
round poles, 460,662 pieces
cordwood, 12,433 steres
faggots, 200 bundles
road planks, 1,700 pieces
bridge ties, 200 pieces.

One month (March 1918) later thirty-four mills produced:

lumber, 6,965 MBM
piling, 857 pieces
standard gauge ties, 80,099 pieces
small ties, 60,100 pieces
round poles, 270,496 pieces
cordwood, 15,932 steres.

WW I Duckboards

During June and July as the German drive toward Paris reached its height fifty-nine mills produced:

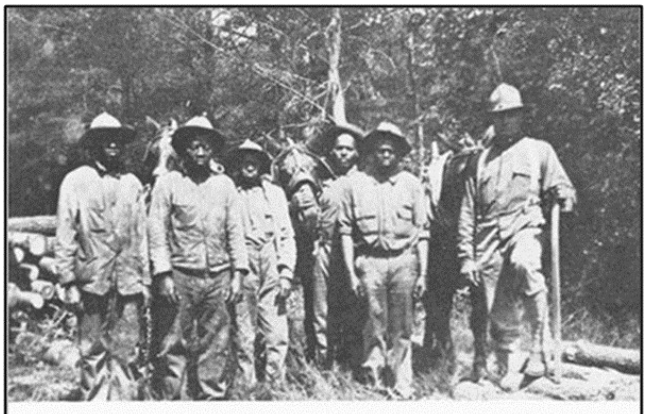
lumber, 50,829 MBM
piling, 10,872 pieces
standard gauge ties, 563,314 pieces
small ties, 322,978 pieces
round poles, 418,607
cordwood, 157,987 steres.

The pendulum of battle swung to the Allies with the launching of a counter offensive against the German lines between Scissons and Chateau Thierry on July 18, 1918. During August 1918, American troops, some 550,000 strong, were massed on the Meuse for the Saint Mihiel and Argonne offensives in September.

The forestry regiment's operations were increased to sixty-six mills in August and eighty in September and production approached maximum capacity during those two months:

lumber, 60,908 MBM
piling, 5,587 pieces
standard gauge ties, 902,138 pieces
small ties, 270,039 pieces
round poles, 1,020,274 pieces
cordwood, 310,517 steres

No story of the Forestry Engineers in France can be fittingly told without frequent recognition of the worth of the various auxiliary troops who served with the Twentieth Regiment. The Service Companies, largely composed of African American troops from Alabama, Texas, and Mississippi, were incomparably valuable to the Regiment as a result of superior training, longer service, and greater administrative efficiency. They were not trained in Forestry; they had been expected to be assigned front-line duties when they enlisted and were shipped overseas. The first four Service Companies arrived in France as the 503rd Engineers having been authorized September 28th, 1917. Upon arrival the outfit was thoroughly scattered; one company was assigned to the Pontenx District, where they took over the operation of trains on several French branch roads and handling the lumber products of various companies of the 10th and later the 20th Battalions. In general, however, the Service Companies were employed in loading lumber, and in cutting and shipping fuel, although at least two companies were assigned to run mills.
Companies 9, 10 and 11 of the 517th were a part of the lumbering expedition that accompanied the First Army into the Argonne woods the last offensive of the war – and the offensive with the highest casualties. The 9th Co. made fuel production records in September 1918. The Offensive began in September and ended on November 11, 1918 – Armistice Day.



A fuelwood crew of Company A, 503rd Engineers, Service Battalion, assigned to the Mortumier Estate.

Although the cessation of hostilities on November 11, 1918, meant an immediate reduction in the demand for forest product, it did not mean the forestry regiment was headed for home. Mill equipment had to be disposed of, roads repaired, cutting operations cleaned-up to the satisfaction of local inspectors, and financial arrangements completed as to the disposal of surplus forest products and the sale of state forest lands back to the French government. In addition, the AEF agreed to produce lumber from a 30-40,000 acre burned area that would otherwise be spoiled by the next year if not harvested. Of course, the 20th Engineers (Forestry) was assigned this last task. After the Armistice, the 10th was also assigned to assessing damage to the French forest by the German army as part of reparations. As units waited for embarkation orders, they were assigned to the burned area to mill the salvaged timber into marketable lumber. In April 1919 seventeen companies, two battalion headquarters, medical detachments and a bakery detachment were included in the burned area district. Nearly every battalion at some time was represented in the burned area.

In addition, other young men were given other opportunities. For example, instead of leaving for the US, Captain Arthur Cummings Ringland joined the American Relief Administration Mission to Czechoslovakia, eventually becoming the chief of mission in Europe between 1919 and 1921. In 1922 he was assigned to a relief project in Constantinople and after completion of the American Relief Administration assignment, Capt. Ringland returned to the Forest Service. Mr. Ringland used his experience in the creation of CARE after WW II.

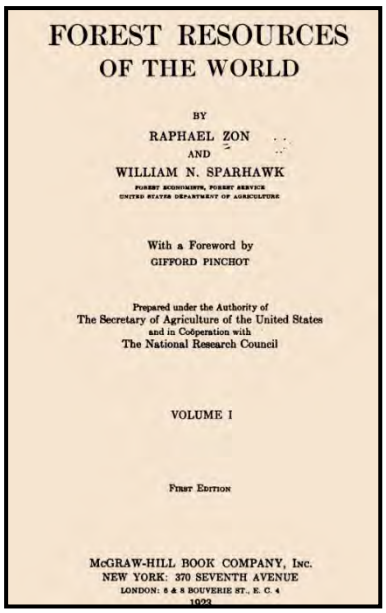
All in all, not counting the units that were never shipped to Europe, the 20th Engineers had more than 500 officers and 30,000 soldiers assigned or attached by the time of the Armistice. It was the only organization in the A.E.F. that had a soldier from every State in the Union.

In addition to managing the recruitment of the Tenth Engineers and assisting in the organization of the Twentieth, the U. S. Forest Service of the Department of Agriculture raised nearly $4,275.00 for the purchase of two motor ambulances and two kitchen trailers. Additional purchase included six phonographs to share with the troops. The American Forestry Association collected $4,000.00 when deposited in a French Bank equaled 22,400 francs

The women of the Forest Service also contributed to the cause. Mrs. Henry Graves led a group of Forest Service wives and employees in knitting woolen sweaters and more. Even before the 20th left for France, each man received a sweater and other knitted items from the Forest Service in partnership with the Potomac Division of the Red Cross. The Washington Office sent a large Christmas box to the regiment on November 15th, 1917, containing 126 knitted garments, 164 bags, 75 cans, and 18 packages of tobacco, 2,500 cigarettes, and a quantity of candy, chewing gum, and pocket flashlight.
The box arrived in France on June 25th, 1918, exactly six months late for Christmas!

Several overseas organizations including the Red Cross, Y. M. C. A., Knights of Columbus, and American Library Association, promoted the welfare of the soldiers by donating athletic equipment, reading matter, cigarettes, stationery, games, pianos, and many other things.

1923 "In 1923, Zon and Sparhawk published a two-volume book, Forest Resources of the World (1923), which included an introduction by Gifford Pinchot. It brought together statistical summaries of forest resources for all nations. Volume II, Chapter 4, focused on "The Forest Situation in Northern North America," including Canada, Alaska, and the lower 48 States" (A History of Forest Survey in the United States, 1830-2004 United States Department of Agriculture Forest Service FS-877 June 2007)



FOREST RESOURCES
OF THE WORLD

BY
RAPHAEL ZON
AND
WILLIAM N. SPARHAWK

With a Foreword by
GIFFORD PINCHOT

Prepared under the Authority of
The Secretary of Agriculture of the United States
and in Coöperation with
The National Research Council

VOLUME I

FIRST EDITION

McGRAW-HILL BOOK COMPANY, INC.
NEW YORK: 370 SEVENTH AVENUE
LONDON: 6 & 8 BOUVERIE ST., E. C. 4
1923

"The Forest Resources of the World" brings together in a critical way the available information, and provides a solid foundation upon which to build, through future international cooperation, an organization for the continuous collection of complete forest statistics. What gives particular interest to the book is the fact that the forests are treated not merely as available exploitable materials, but as a living, renewable resource, not to be destroyed by use, but to be regrown, perpetuated, and improved.

Hitherto most of the discussions of the forest resources of the world have been confined principally to the better-known forests of temperate regions. The vast undeveloped tropical forests were practically ignored.

(Forward by Gifford Pinchot in The Forest Resources of the World, vii)

1924 the Tropical Plant Research Foundation at Yale University was established by Willam Orton.

1927 Tom Gill -- the Tropical Plant Research Foundation

1928 Raphael Zon and William Sparhawk publish *America and the World's Woodpile* describing the growth, consumption, and future needs of softwoods around the world.

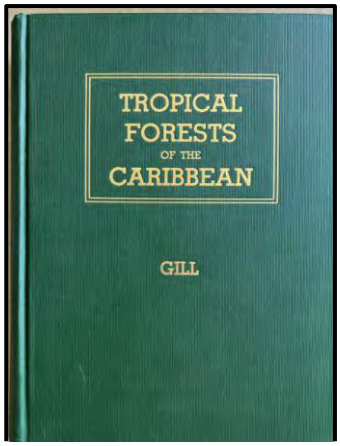
1931

- **Arthur Ringland** was sent to Europe by the Forest Service and the Bureau of Agricultural Economics to study forestry and forest products trade relations. He spent two years in studies of forest and conservation projects in Italy, France, Germany, and other countries, and upon returning to the United States in 1933, he made reports on the combination of work relief and conservation of natural resources, which were applied to employment and conservation measures adopted to defeat the depression here (EUROPEAN FORESTRY REPRESENTATIVE, FOREIGN AGRICULTURAL SERVICE, U.S. DEPARTMENT OF AGRICULTURE (1931-1933)). Considerable progress was possible and field inspection made of typical projects in the British Isles, France, Switzerland, Austria, Czechoslovakia, Germany, Danzig Free State, Sweden, Denmark, Holland, and Belgium.

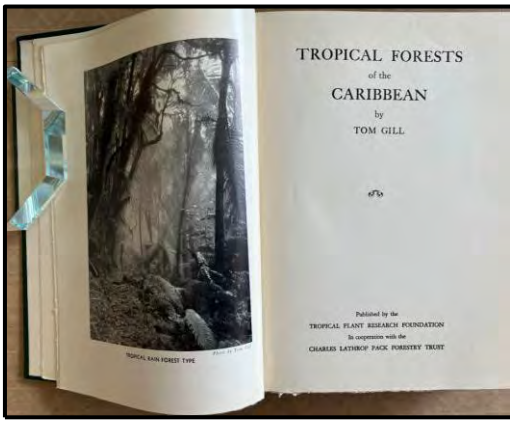
- Planned project work was to include forest Influences; private forest practices; and forest surveys, that is, the inventory of resources and control of production. The whole purpose of having a study made abroad was with the thought that foresters might be set up in Foreign Agricultural Service attachés, along with agriculturalists already working there.

- I was hopeful out of it all there would be a recognition of forestry in its place in the agricultural foreign

service. My thinking was there should be a forestry attaché at our embassy in Stockholm for the Scandinavian countries, where the economy of Sweden and Finland is so heavily based on the timber industry and forestry is so well established for production. And then there should be another attaché, say, at Berlin, who was either a wood chemist or a wood physicist, or a research biologist in the field of silviculture and another In Rome covering the Mediterranean countries and the developments there Spain, Italy, Greece, so on for observation of their measures to overcome the devastation from ancient times by reforestation or other measures of protection of the soil…. Those three, and perhaps one in the general commercial field stationed In London, quite an intelligence center. Well, that was the picture I had in my mind.



- **Tom Gill** published *Tropical Forests of the Caribbean*. The three-year survey "…gathered together, so far as we were able, all that was known about the forests of that region and how they were being treated…it was the first effort ever made, I think, in the United States to evaluate what was going on in the forests that were right at their back door. Fry: Was this to help these countries make better use of their timber supply? Gill: No, it was primarily to give us the facts on which to develop knowledge which we should have in order to supplement our own U.S. policy our domestic policy. Actually it was part of the old economic problem of supply and demand of forest products. But, although it was not the primary purpose of the survey, we were able to help some of the other countries in strengthening their government forestry and in doing "what we could to stop the forest devastation that went on at an ever-increasing pace. We were especially Interested in Mexico, and later on the Pack Foundation established an Institute of Natural Resources there and supported it for about eight or ten years." " But let me give you a little more background in answer to your question why we in the United States were interested in the timber supply of these countries. As good timberlands became more scarce here in the United States in the early 1900' s, and even before that, some of our lumbermen began looking around outside of the United States for possible new sources of supply. Naturally, the first place they would look to was the Latin American countries, especially southern Mexico, northern South America, and the Caribbean region." Pg. 13



1932 Edward M. Munn of the US Forest Service becomes Vice President of the IUFRO.

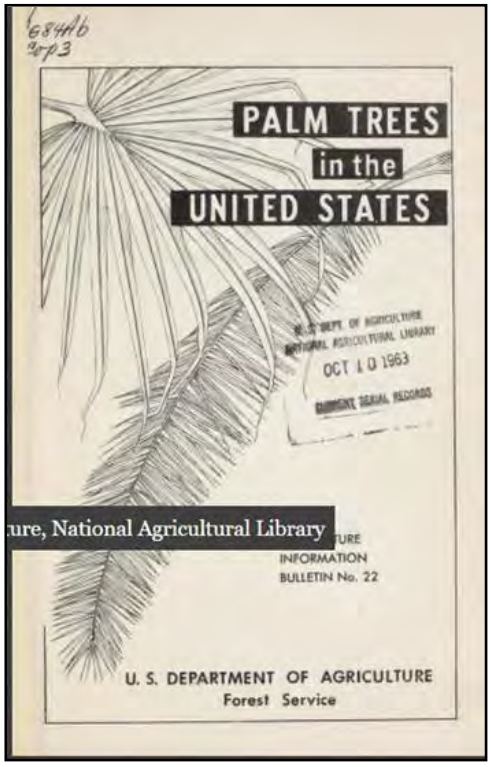
1933 Miriam Bomhard begins work for the Forest Service.

Dr. Miriam Bomhard

Dr. Miriam Bomhard attended the University of Pittsburgh on an honor scholarship, graduating *cum laude* in 1921. She continued her education at the University of Pittsburgh as a graduate assistant and then as an instructor in the botany department. Along with her graduate studies, she also conducted research on fungi on Long Island, NY, documenting a number of species that had not been previously recorded. She donated her specimens to the Carnegie Museum of Natural History Herbarium. She received a PhD in 1926, the first women to receive that degree from University of Pittsburgh. Her doctoral thesis was on the subject of illustrations and keys in the identification of seeds in Allegheny County, Pennsylvania.

In 1926, she began work at Newcomb College, which was then the women's department of Tulane University in New Orleans, teaching zoology and botany. She worked there until 1932. She then embarked on a trip to the British colony Malaya. In 1933, on her return to the United States, she began work as a junior pathologist, and then as a botanist at the Bureau of Plant Industry in Washington, D.C., later named the United States Forest Service, where she worked until her death in 1952.

Her bulletin discussed the general characteristics of palms, drawing cultural connections to the scientific nature of the trees. She wrote, the whole world depends upon the palm family for an abundant supply of certain needed vegetable oils and waxes. During World War II, nations including our own made strenuous efforts to secure lesser-known palm oils or other substitutes when sources of copra and coconut oil and African oil palm kernel and palm oils were cut off.




Alpha Xi Delta
Front Row: Higbee, Bush, Hodgson, Douthett, S
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anlon, Sanner, Ralston, Brown, Little.
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herington, Alexander, Martin, Fredericks.
THE QUAX
ALPHA XI DELTA


The Owl 1920
The Owl
Front Row: Douthitt, Lev
Second Row: Bomhard, Lau
Third Row: Bartholemew,
Back Row: P. Scanlon, M
The Quax, the women's science fraternity was organized February 19, 1919, with seven girls as charter members. Its object is to promote an interest in science, and a spirit of comradeship among the science girls of the university. Business meetings are held monthly. The requisites are an interest in science, and work of a higher order. No girls are elected to its membership before the close of their sophomore year.

1935 Jose Marreo Torrado begins working with the Forest Service on the Caribbean National Forest (now El Yunque National Forest).

Jose Marrero Torrado in the 1950s (Courtesy IITF Library, Forest Service, International Institute of Tropical Forestry)

In the mid-1930s, Jose Marrero began to work with the USDA Forest Service as part of the Civilian Conservation Corps. His first job was as a supervisor for men working in the Toro Negro Forest. When the Tropical Forest Experimental Station opened in 1939, he went to work with Leslie Holdridge. In the 1940s, the USDA Forest Service began a series of studies in foreign countries. Holdridge was in charge of the mission in Ecuador, and he asked Marrero to go with him (1943). “It was a forestry mission to study the forest system and to make recommendations of what to do to conserve the forests. I had experience and I spoke Spanish, I knew the idiosyncrasies of the Spanish Americans. When the mission ended in 6 months, Dr. Holdridge went on to jobs in the United States, but I stayed for 3 more months. During that time, I got an attack of appendicitis while I was in the middle of the jungle. There was an American forester with a lot of tropical experience. He laid me down in a truck. There were no roads, the beach was the road, and he told the driver to go quickly before the tide rose. We reached a town, where a doctor had a brother who was a good surgeon and a U.S. base in the little town of Manca, with an American surgeon.”

In the mid-1940s, Marrero received a scholarship to attend the University of Michigan where he studied forestry sciences, graduating with an MS in forestry in 1946. He then returned to work with the USDA Forest Service in Puerto Rico. “My specialty was in reforestation, in forest plantations. I worked in the nurseries and followed up from the nursery to the plantation. I mainly worked in forest maintenance. I remember writing articles, mostly for The Caribbean Forester and the Puerto Rico Agricultural Review.” In 1948 the USDA Forest Service published a technical assessment prepared by Jose Marrero of the planting of 4 million trees and 22 tons of seeds from 34 tree species in the Caribbean National Forest over an 11-year period starting in 1934.

Jose worked with Frank Wadsworth for years, especially on establishing research plots located around the Forest in plantations created through the efforts of the CCC. Because he had supervised CCC crews he knew where all the plantations were. He and Frank Wadsworth worked on the establishment of these plots for 10 years and are still in use today.

In 1965, after 30 years of service, Marrero retired from the USDA Forest Service. At the impressive age of 93, he spoke of the future of forests in Puerto Rico: "If I were a government leader, I would focus on conserving the federal and local government forests. This would be for me the most important task. I don't have a lot of faith in the private lands because the owners change so often and in general the private entities don't have much interest in conservation. For me the emphasis has to be on the government. In schools, I would stress the importance of trees and the conservation of trees and forests. My message would revolve around conservation."

Jose Marrero in the 1960s (Courtesy IITF Library, Forest Service, International Institute of Tropical Forestry)

During his tenure with the U.S. Forest Service in Río Piedras, Puerto Rico, thousands of acres of abandoned land were acquired and converted into the Carite Forest, Rio Abajo Forest, Guajataca Forest, Gularte Forest and Susua Forest. Mr. Marrero Torrado supervised the planting and growth of 30 million trees and helped create unique ecosystems in 20,000 acres throughout the island. He also taught multiple generations tree propagation and reforestation courses, including international students. "The enormity of José's work remains in the trees. His affection was not limited to his favorite tree, the guamá (Inga laurina), but to the millions of more than 50 species that got their start under his guidance. When José finished his 30 years of federal service in 1965, there was not one acre in Puerto Rico's public forests that hadn't been reforested: more than 20,000 acres had been planted during his time. These trees, in the forests of El Yunque, Carite, Toro Negro, Aguirre, Cambalache, Río Abajo, Guajataca, Guilarte, Maricao, Susúa, Guánica and Boquerón, remember José as the person who was responsible for their care when they were in diapers." In 2008 he was posthumously recognized for his long, distinguished history of environmental stewardship with the EPA Environmental Quality Award.

1939 Public Law 63 authorizes funds for American technical assistance in Latin America, Liberia, and the Philippines.

1939 The International Institute of Tropical Forestry was established in cooperation with the University of Puerto Rico.

1940 – 1959

1940

- As world tensions grew, the Roosevelt administration created the Office of the Coordinator of Inter-American Affairs (from the created Office for Coordination of Commercial and Cultural Relations Between American Republics) to strengthen economic and cultural relationship with Latin American nations and the Allied powers.
- Second Deficiency Appropriations provided direct funding of agricultural and forestry workers and training of foreign and domestic foresters.

1940-1944 During WW II the Forest Products Laboratory (FPL) provided research to support the war effort; preservative for wood used in the tropics was one of FPL's contributions.

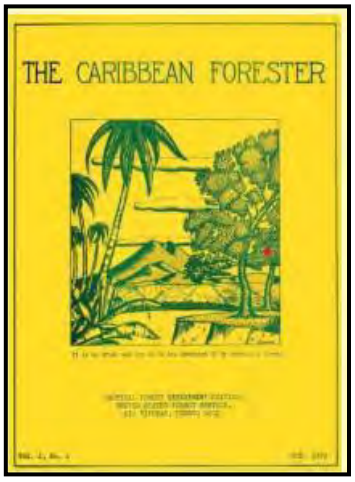
1942 Agreements were made to establish experimental forests in Latin America countries.

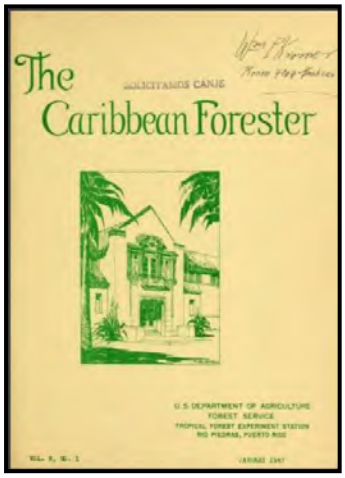
1942 Frank Wadsworth begins work in Puerto Rico.

Frank Wadsworth Photo courtesy International Institute of Tropical Forestry

Frank Wadsworth joined the Forest Service in 1938. His early career was spent in the American Southwest at Southwestern Forest and Range Experiment Station at Fort Valley, Arizona; however, in 1942 he took a research position at the Tropical Forest Experimental Station in Puerto Rico.

Editor, Caribbean Forester (1942-1965)





The primary duty of the staff at the experimental forest was planting and the reforestation of the mountains that had been cutover to make room for sugarcane and other agricultural products. However, aside from reforestation work Dr. Wadsworth took over the publication of the Tropical Forester which had begun shortly before his arrival. He edited the Caribbean Forester for the next 24 years. The little journal carried articles from all over the Caribbean and elsewhere and was an important outlet for sharing information on tropical forestry research and management among professionals grappling with the same problems across the region. Although the experimental station was included in the Research arm of the Forest Service, Frank was also a firm believer in research that contributed to the betterment of people and not just research for research's sake.

During his tenure as an employee of the U.S. Forest Service, Dr. Wadsworth was a forester, Director of the Institute of Tropical Forestry (now the International Institute of Tropical Forestry), Supervisor of the Caribbean National Forest (now El Yunque National Forest), and after his retirement from the Forest Service, he continued his research as a volunteer at the Institute, always dedicated to conservation and tropical forestry. As part of his deep concern for the conservation of the natural resources of Puerto Rico, he initiated research on the Puerto Rican parrot that led to the extinction preventing conservation efforts. As a result of a comment drawing attention to the low population numbers of the only parrot in North America to the Chief of the Forest Service during a 1965 visit to Puerto Rico, Chief Ed Cliff was able, through partnerships, to initiate the Puerto Rican Parrot Recovery Program, a program that continues to see gains in population numbers today.

Dr. Wadsworth was also a committed educator. His field courses (totaling 19 three-month-long courses) in Puerto Rico that eventually included 253 foreign forestry students from 15 countries, and training courses elsewhere in the tropics, were critical in building forestry and conservation capacity in Puerto Rico and elsewhere in the Caribbean. He also translated and authored Boy Scout merit badge booklets in Spanish on bird study, herpetology, botany, and conservation, as well as a book on the natural history of Mona Island. Because Dr. Wadsworth life was dedicated to the survival of the forests and other natural resources of Puerto Rico, he later helped to establish the Centro Ambiental Santa Ana with an interpretive naturalist program dedicated to educating urban school children and the public in a forest reserve in the San Juan metropolitan area—among the first environmental

education centers in the Caribbean. For thousands of children and their teachers, guided hikes with Centro Ambiental Santa Ana (CASA or Santa Ana Environmental Center in English) would become their first experience in a local forest.

Over 39,000 people, mostly children, have been touched and influenced by the guided hikes, nature festivals and workshops and other educational programs he facilitated in the Forest. These outreach activities encouraged a large number of students to become natural resource specialists and continue Dr. Wadsworth's work in Puerto Rico and beyond (View of In memoriam: Dr. Frank H. Wadsworth, 1915–2022 (birdscaribbean.org).

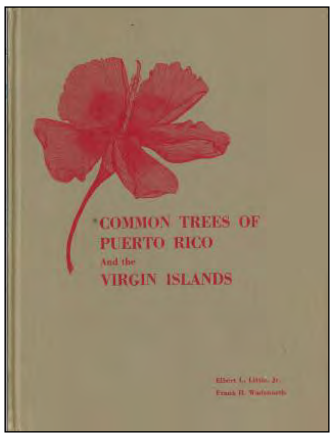
Dr. Wadsworth continued to work as a researcher and consultant in every country in tropical America even after his retirement. He has been given fifty-six consulting assignments with FAO, USAID, and other institutions (International Tropical Timber Institute [ITTO]), and twenty-two "special" assignments to investigate a wide range of tropical forestry problems. Also included in his resume is a list of fourteen university activities, such as developing a forestry course for the University of the Andes in Venezuela.

Although he traveled the world, across Latin America he is remembered because he established the practice of tropical forestry and was responsible for the development of foresters that trained under him in Puerto Rico, along with the creation of tropical forestry schools in several countries across the region including Venezuela. He wrote books on the trees of Puerto Rico, Mona Island, and the forest production of tropical America. He was protector of El Yunque ensuring that its lands were administratively designated as a place for research, sustainable forestry, water and wildlife conservation and the perennial protection of its historic forests.

Aside from encouraging and mentoring students, Dr. Wadsworth further contributed to the identity of Caribbean forestry by facilitating communications among Caribbean foresters for 22 years (1942–1964) as an editor for the Caribbean Forester (1942-1964) and as editor of the International Society of Tropical Forestry Newsletter beginning in 1972, all of which provided an outlet for findings in research and management relevant to the region. The ISTF Newsletter became his most enjoyable assignment: collecting new research in current journals, receiving recent studies and investigations from colleagues, and even just notes about recent work from associates around the world a became a challenge and a joy.

Dr. Wadsworth also found time to publish more than 100 scientific books and papers, including *Common trees of Puerto Rico and the Virgin Islands* (1964-1989, co-authored with Elbert Little) and *Flora of Virgin Gorda (British Virgin Islands)* (1976, with Little and R.O. Woodbury).

Dr. Wadsworth passed away in January 5, 1922.

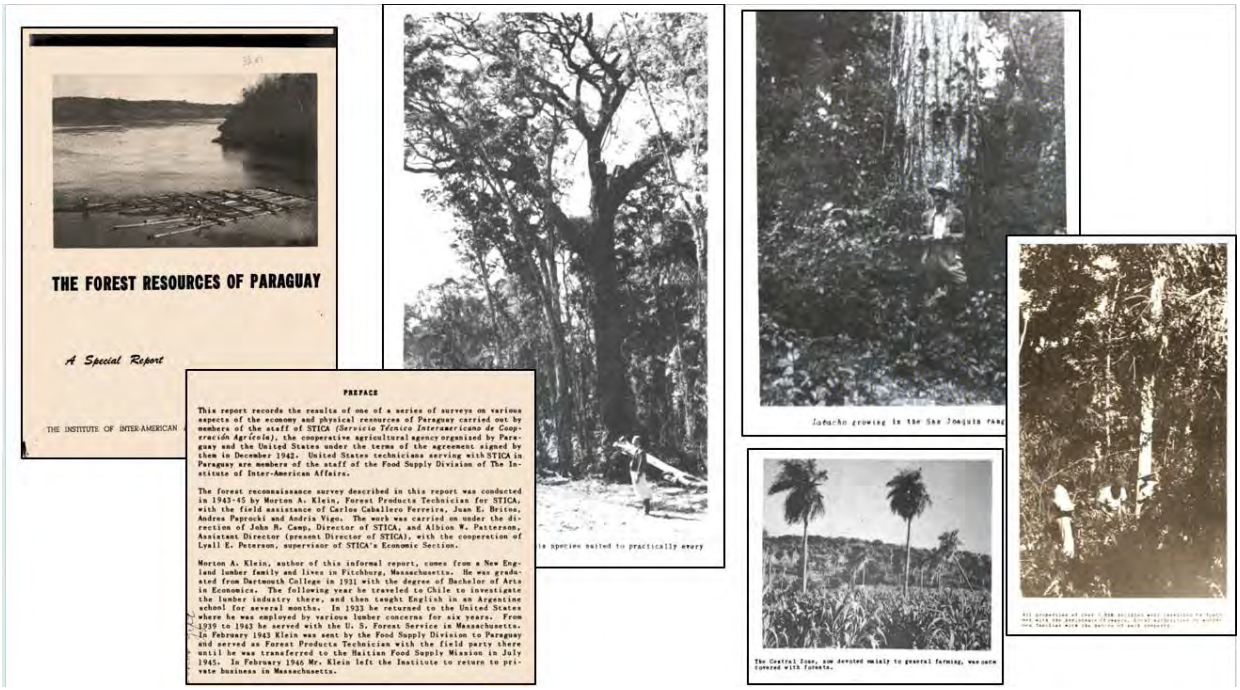




1942 The Rio de Janeiro Conference of the Foreign Ministers: The aim of the United States at the conference was to secure full control of the raw materials and food produced in Latin America and thus prevent the Axis powers from getting any of these vital exports. Toward that end, many Latin American countries signed agreements creating the *Servicio Técnico Interamericano de Cooperatión Agrícola* (STICA) partnership and allowing American technical resources to survey various aspects of Paraguay's economy and natural resources.

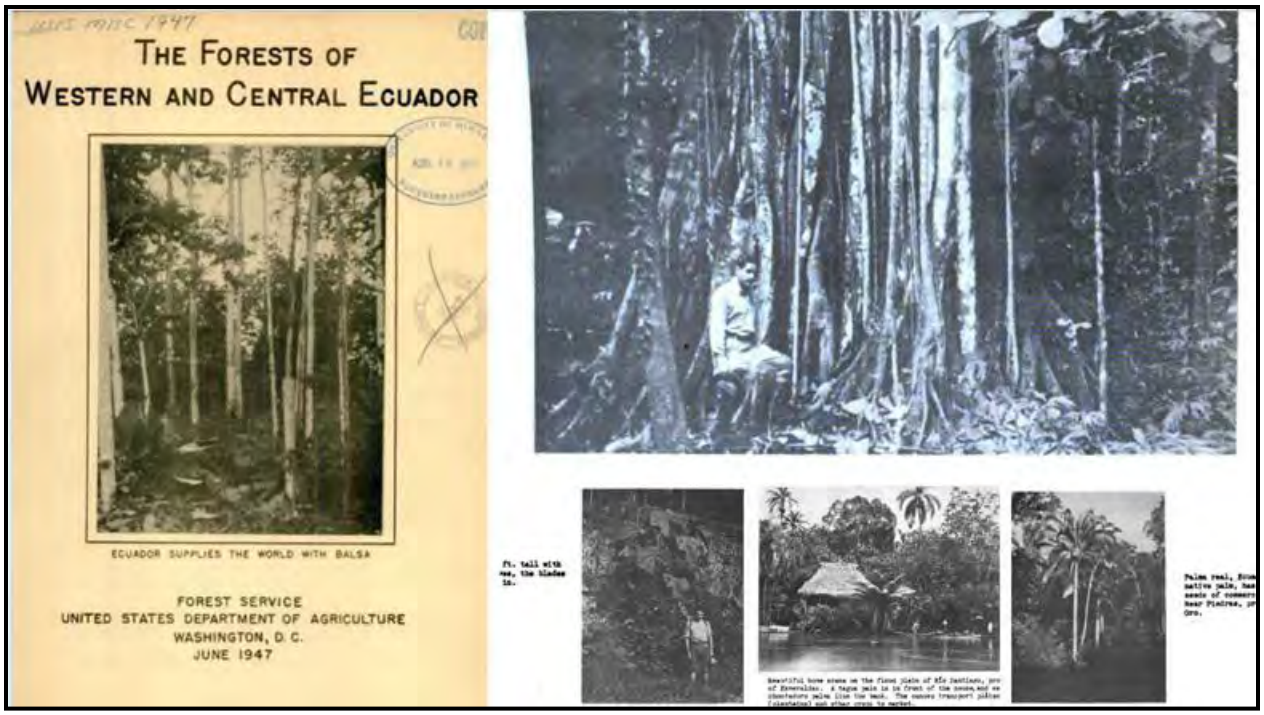
1943 Arthur Bevan went to Costa Rica to work with oaks for war-time whiskey barrel; he also managed several other war-related inventory projects in Latin America, including Ecuador.

- FS staff John L. Camp initiated a project in Paraguay to inventory forest resources and to set up a modern experimental sawmill. Camp later moved on to Venezuela to work in agricultural assistance with Inter-American Affairs.



- L.R. Holdridge, Laurence V. Teesdale, J. Edson Myers, Elbert T. Little, Eugene F. Horn and Jose Marrero traveled to Ecuador at the request of the Ecuadorian government to inventory their forest resources.

- Other countries included Brazil, Costa Rica and El Salvador.



- Evan Worth Hadley went to the Amazon to facilitate rubber production for the war effort

- President Franklin D. Roosevelt called a United Nations Conference on Food and Agriculture, which brought representatives from forty-four governments in Hot Springs, Virginia. The Conference ended with a commitment to establish a permanent international organization to reduce food insecurities and agriculture production, the Food and Agriculture Organization (FAO).

1944 FS staff worked with the Allied Control Commission, the bridge between military and civilian governments in occupied countries in Italy and Greece (MB Dickerman). Dickerman helped re-establish the Italian Forest Service, hiring foresters working with the forestry department at the University of Florence.

1945-1948 FS forester Joseph Kircher was assigned by the Army of Occupation to create an emergency cutting program: "Timber exports from the US occupation zone were particularly heavy. Sources in the US government stated that the purpose of this was the 'ultimate destruction of the war potential of German forests'." Extensive deforestation as a result of the post-war clear-cutting could be regrown "only by long forestry development over perhaps a century." Wood was one of the "cornerstones of the German war economy and without it Germany could not have waged the war," in the judgment of the Technical Industrial Disarmament Committee. Foreign Economic Administration, of which Mr. Watts was chairman.


Post-war reforestation efforts in Germany

1945-1946 General MacArthur advised by Col. Arthur Spiller and Lt. Col. Harold Donaldson developed a forestry program in occupied Japan to reduce waste in the forest industries, develop programs for the sustained yield of timber and write a comprehensive forestry law (by Tom Gill and promulgated by the Emperor). Initially, US forestry experts found that Japan had been cutting two of three times the amount of timber being regrown in the forests. At the same time, about 14 per cent of the forest area was unused because of the lack of roads. The major problem, according to Spiller was rehousing the Japanese people, with the unofficial estimate reaching 4 million homes needed.

1945 The modern-day concept of international forestry assistance that took shape during World War II ended in 1945**.** CL Forsling, Deputy Chief, Research and Development, was instrumental in developing a relationship between the Forest Service and the United Nations Food and Agriculture Organization (FAO). Every five to ten years since 1946, FAO has conducted a Global Forest Resources Assessment (FRA) to assess the state of national forests, monitor changes in areas under forest use and strengthen the information base for policymaking nationally, regionally, and internationally.

> War II. In countries that had thriving bureaus, the FAO presence provided a neutral political network to connect forestry officers with best practices as defined by the global guild. The FAO allowed countries that had poorly developed bureaus to build them up by providing the kind of support that the imperial powers had previously extended. Equally, it allowed those with flourishing bureaus to maintain status and academic currency. In both cases state forestry could modernize without the compulsions and stigmas that had marred the earlier epoch.[22]

(International Forest Fire News 2010.Np. 39: 2-19)

Henry Graves, former Chief of the Forest Service and one of the early American foresters guided by Brandis during his forestry studies in Europe, served in 1945 as Chairman of the Committee on Forestry and Forest Products of the first session of the FAO Conference.

1946 Death of Gifford Pinchot, First Chief of the Forest Service.

1947 The insular Forest Service published a "Forest Nursery Manual" by Agronomist José A Gilormini. Activity started with a tree nursery on the Rio Piedras campus of the University of Puerto Rico with a capacity of more than a million trees per year. Jose Gilormini, the head nurseryman, who Frank Wadsworth referred to as a "nursery wizard" a few years later had propagated 128 different tree species.

1947 Frances Flick begins work in Forest Service Library.

Frances Flick

Francs Flick graduated from Iowa State University in 1939 with a B.S. in Forestry. She found her forestry profesesors very supportive and encouraging during her time at Iowa State. During the summer of 1938 she enrolled in the required 12-week summer forestry field camp on the Sumter National Forest in South Carolina in the foothills of the Blue Ridge Mountains near Mountain Rest, SC. There were 55 male students and Frances. The young men stayed in cabins at the abandoned CCC camp (F-1) whereas Frances was housed with the camp faculty's family. When they would go on the road to visit other nearby National Forests or timber companies, Frances usually stayed with families in nearby towns. As a result, she missed out on much of the camp's fun after-hours activities. Overall, the camp was a great experience, even though sixty years later, Frances still felt she had missed out a lot of the fun and other extra-curricular activities that happened at the camp.

Iowa Girl Conquers Tall Timber

In the Forests of South Carolina and Tennessee this summer, wielding a machete through the underbrush along with sturdier male members of Iowa State college's forestry class is slim, gray-eyed Frances Flick of Des Moines. Frances, now a junior, started taking forestry to "be different," liked it and continued.

With Both Hands upraised, Frances gives the rodman the "O. K." during surveying operations. Part of her job will be lugging the 23-pound transit over rugged country. Only one girl has ever obtained a degree in forestry at Iowa State college. In forest camps this summer, Frances is staying with the wife of a faculty member.

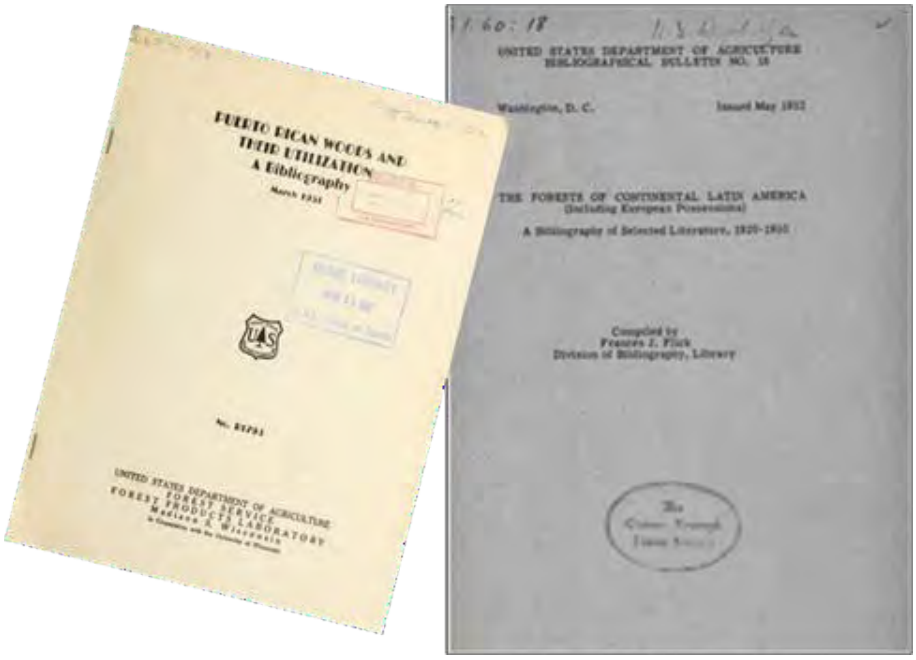
Frances Handles a man-sized task through the day, but when evening rolls around, she's still just a co-ed and the same hands that swing a vicious machete wield a comb daintily in preparation for a date. She's popular with her Gamma Phi Beta sorority sisters who call her "Flicker."
(Iowa Photos by Jim Reynolds)

Article from the Des Moines Tribune 1938.

Newspaper article in the Des Moines Tribune highlighting the uniqueness of a young woman enrolled in the Forestry Program at Iowa State University, 1938

After graduation, the US was still enmired in the Great Depression and forestry jobs were few and far between, especially for one of the few women in the field. As a result, Frances elected to continue her education and pursue an advanced degree in Library Science at the University of New York at Syracuse. She was hired by the Forest Service in 1947, one year after the death of Gifford Pinchot and the donation of his collection to the USDA Library. Because of her ideal educational background, she was put in charge of the Forestry area at USDA. Flick's unique training and degrees in Forestry and Library Science combined to also bring much needed assistance to forestry bibliography.

Initially she worked with Dr. Eloise Gerry to publish *Puerto Rican Woods and Their Utilization* at the request of the Tropical Forest Experiment Station of the U. S. Forest Service, Rio Piedras, Puerto Rico in 1951. Most references in the bibliography were collected by Dr. Eloise Gerry of the Forest Products Laboratory in Madison, WI while additional sources checking, and preparation of the list for publications was completed by Flick at the U.S. Department of Agriculture Library. The next year Frances Flick published *the Bibliography of Tropical Forests of Continental Latin America*.



She also prepared a number of other bibliographies on topics related to the continental United States, such as *The Mississippi Delta* (1948) and two reviews of The Economics of Forestry in 1950 and 1955. In the 1956 International Society of Tropical Foresters News and Notes, it was noted that Flick had resigned from the Forest Service and her forwarding address was in Des Moines, IA.

Aside from the U.S. Department of Agriculture Library she also worked at the Animal Disease Laboratory in Ames, IA. She retired as the reference librarian from the University of Arizona in Tucson and returned to Des Moines in 1981. Post retirement she was involved in library projects in Guatemala in the Library of the University of San Carlos.

Frances was multi-lingual. Within the last ten years of her life, she taught herself Arabic and Bosnian. She was a big fan of non-fiction, especially literature revolving around the American Civil War.

1948 Foreign Assistance Act of 1948, Economic Cooperation Act of 1948

- William Vogt, an American ecologist and ornithologist, and who wrote of his concern on population growth and environmental degradation conducted surveys in Peru, Mexico, Costa Rica and El Salvador during the 1930s and 1940s, later writing the book *Road to Survival* laying out the ideals of the modern environmentalist movement.

 **1949** Chief Lyle Watts created the Division of International Forestry within the Forest Service to manage these programs (Foreign Assistance Act of 1948, Economic Cooperation Act of 1948) and the FAO.

1950

- The International Cooperation Administration (the forerunner of USAID) was established. Forest Service people helped support ICA's forestry programs in Latin America and elsewhere. This appropriation provided funding for educational and training opportunities in the United States for foreign foresters and students and FS staff were assigned to a variety of international projects. Approximately 260 projects were initiated during the next 15 years with between 40 and 50 American foresters, including FS staff, participating each year, and 400-500 foreign individuals participating in the United States.
- September EO 10159 established the Technical Cooperation Administration (TCA)

1951 Dr. Irvine T. Haig, director of the Southeastern Forest Experiment Station at Asheville, N. C., left the Forest Service to join the Food and Agriculture Organization of the United Nations to oversee research and technology for the Division of Forestry and Forest Products of FAO in Rome, Italy.

1950 Miriam Bomhard published ***Palm Trees of the United States.***

1951 Gerry and Flick publish ***Puerto Rican Woods and Their Utilization.***

1956 Forest Service became a member of the International Union of Forestry Research Organizations (IUFRO).

1958 Agricultural Trade Assistance Act amended which allowed the Forest Service to expand research activities abroad and to involve foreign scientists and strengthen ties among researchers around the world.

1958 the unit (Division of International Forestry) became known as the Foreign Forestry Service in the Office of the Deputy for Research, with A.C. Cline designated as its director in 1959.

1960 – 1979

1960 "When the United States announced in 1958 that it would be host to the Fifth World Forestry Congress (in Seattle), the official seal of approval was set on America's participation in international forestry. The date also marked – almost to the year – a half century since this country first proposed a world conservation program." Tom Gill American and World Forestry, In *American Forestry Six Decades of Growth*,1960

Fifth World Forestry Congress. "Multiple Use of Forest Lands" is the theme of the Fifth World Forestry Congress has a worldwide application. Forest and related areas should be managed in a manner that will conserve the basic land resource while at the same time producing high-level sustained yields of water, timber, recreation, forage, and wildlife harmoniously blended for the use and benefit of the greatest number of people. Participants included 2,000 representatives of 68 countries and 9 international organizations.

Richard E. McArdle

RICHARD E. MCARDLE President

1961 President Kennedy signed the **Foreign Assistance Act** to promote economic and social assistance to foreign countries. created a new independent federal agency, the United States Agency International Development (USAID) to administer non-military, economic assistance programs. The agency incorporated existing international programs such as the USDA agricultural surplus distribution activities referred to as the Food for Peace program, among others existing aid programs.

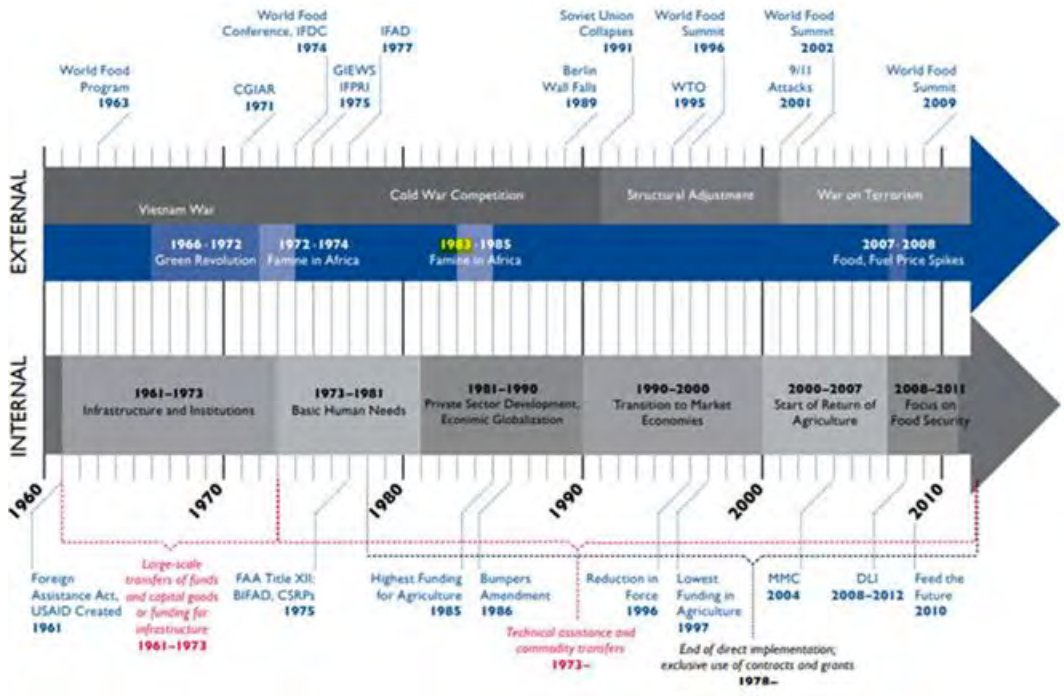
USAID Forestry Program Overview

- In the 1950s and 1960s, large numbers of staff came from US universities and extension services with strong practical agricultural experience and technical training, as well as an understanding of US agricultural institutions. They did an excellent job in laying a base for agricultural development but were less adept at understanding local social and economic constraints to development and less accomplished in cross-cultural work situations.
- Late 1960s A.I.D. began to withdraw from forestry projects
- The 1970s and 1980s staff consisted of individuals with overseas experience, largely with Peace Corps, often having worked on agriculture and rural development projects. In general, because fewer had farming backgrounds, their practical experience and technical training in agriculture was less than previous Agricultural Officers, but they were better equipped for cross-cultural work, including language capabilities, more committed to participatory approaches, such as farming systems research, and more appreciative of rural social and economic constraints on agricultural development.
- A roughly estimated 400% to 500% overall increase in forestry assistance by A.I.D. Missions occurred between 1975 and 1979. A recent study by the U.S. Forest Service under DS/ST project "Deforestation and Development" lists more than sixty recently completed, on-going or planned A.I.D.-funded forestry or forestry-related projects in less developed countries (LDCs), more than one half of which are in Africa and one third in Latin America (USAID Forest Resources Management, Project Paper Vol. 1, 1980).

- **<u>USAID Forestry Program Overview</u>** (cont'd)

- The Peace Corps Director and the A.I.D. Administrator signed a Joint Memorandum on December 31, 1979, directed at A.I.D. and Peace Corps staff, directing staff in both agencies to increase their joint efforts in support of collaboration and cooperation in development activities.
- By 1982, A.I.D. had 96 on-going and planned forestry-related projects in 37 countries with $215,753,000 budgeted for forestry-related activities. AID had lost virtually all its forestry expertise by the time this expansion started, and forestry talent is still spread thin.
- The 1990s became a turning point as agricultural funding and staff levels declined. There was little hiring in agriculture and reduced coherence in sector staffing. Many agricultural staff elected or were forced to move to positions other than agriculture. The remaining agricultural staff emphasized research, especially global research investments.
- The 2000s ushered in a more complicated period. The gap in agricultural staffing for the Agency was painfully obvious and a part of a general staffing problem (USAID, 2004). The serious decline in staff numbers led to a break with the past and loss of institutional memory. The Agricultural Sector Council ceased to function, eliminating an important forum for professional dialog and independent analysis. Recruitment of new agricultural staff was initially difficult, but eventually brought in a new cohort of agricultural staff, much more diverse in terms of gender, ethnicity, and technical background. A sample of 48 new agriculturalists suggests that: most (over 80 percent) had prior international experience (often Peace Corps); prior work experience in farming (~20 percent), private agribusiness (~ 20 percent), or government/NGOs (~70 percent); about a quarter had a basic degree in agriculture; and most had advanced degrees in agricultural technical fields (~40 percent), general agricultural or international development (~40 percent), environmental sciences(~15 percent), or a non-agricultural degree (~10 percent).
- The U.S.D.A. Forest Service has been selected as the most capable and appropriate organization to assume responsibility for performing all Support Network activities through a RSSA with A.I.D.
- USAID's biodiversity and sustainable landscapes programs work to achieve results at scale in globally important forests.
- 2020 96% of A.I.D. forestry-related funding is dedicated to tropical forests.

Major Events and Themes that Shaped USAID's Agricultural Programs



1961 President Kennedy also signed congressional legislation creating a permanent Peace Corps.

THE PEACE CORPS/A.I.D./Forest Service Partnership
Let's lend a hand in other lands.

In 1961, Kennedy signed congressional legislation creating a permanent **Peace Corps** immediately vastly increasing the numbers of people active in international forestry at the "grass roots" level. the Forest Service detailed Eventually, a full-time professional FS forester was attached to Peace Corps headquarters without charge. His efforts were central to initiating a separately defined forestry thrust in Peace Corps programs.

SMOKEY SAYS, "LET'S LEND A HAND IN OTHER LANDS."

Approximately 5000 forestry and related natural resource specialists enrolled in the Peace Corps. Nearly 100 forestry graduates were serving in the Peace Corps during the early 1980s. The Forest Service was acquiring a lot of Peace Corps returnees that had hands-on experience. They had been trained in forestry, maybe came back and went to grad school, so we're building up a potential infrastructure for tropical forestry in the U.S. That wasn't the plan, but it happened that way (Arnold/Steen Interview).

Healthy forest ecosystems provide a wealth of benefits: they are rich in biodiversity and critical to water conservation. They store carbon, improve human health and nutrition, improve the lives of people who depend on them, provide key resources that contribute to people's livelihoods, and protect communities from the worst impacts of climate change. Since 1961 when Congress passed the Foreign Assistance Act the Forest Service has been the USAID's principal partner in carrying out its forestry program. The focus of forestry section of the Foreign Assistance Act is the importance of forests and tree cover to the developing countries.

We have people like Frank Wadsworth down in Puerto Rico, who's probably the best person in tropical forestry in the world today in areas that he knows. But he's one person. So how do you deal with getting information to other parts? I became particularly frustrated with following the World Forestry Congress in Indonesia while deputy chief in 1978. I made a trip to Thailand after that, and I ran across some Peace Corps people. They were from the United States and also from Sweden I think; there were several countries involved under their agreement. These young people decided that they wanted to grow some trees for regeneration of the area, so they're going to put in a tree nursery. I said to these young people that were about a year out of school, "Did you ever have anything to do with putting in a tree nursery, do you know anything about the subject?" And they said, "Not really except for what we read a little bit." So I said, "Well now, you're out here in the Peace Corps, if you need assistance on something, how do you get it?" And they said, "That's a good question. We don't really have any organized way of getting technical assistance as it relates to forestry." I thought well gosh sakes, how are we sending these young people throughout the world and just kind of leaving them on their own? Maybe they're creative and all these kinds of things, but you can also make big mistakes when you're trying to do this stuff. I came back and talked to our people and said. "How come we've got these young Peace Corps people way out there and they don't have any technical backup at all?" Well, that led to a project with AID to develop some forestry

handbook materials and develop a technical backup system for the Peace Corps people by detailing a person over to work with the AID and the Peace Corps to try to develop that. Then, shortly after that, I don't know if it had anything to do with what I was concerned about, may have been somebody else observed the same thing, SAF decided to provide complimentary copies of the Journal and some other things to these people. We started trying to figure out an organized back-up, and so AID then was starting its project, which it was getting funding, and it didn't have any people to do it, forestry became a big deal in other countries. And AID could get funding but didn't have a staff. And so that led then to our agreeing to take on a lot of these projects in which they provided funding, and we provided staff.

Through the International Forestry Division. Bob Buckman was one of the primary people that were also pushing this. Tom Nelson was involved with this. Quite a few people were involved in trying to see how can we help with these projects in that AID had some money without any staff. I asked how many staff we were talking about, and they said maybe six or seven people. I said, "Shoot, we can't even count that close when it comes to closing the year with personnel ceilings in the Forest Service. So why don't we just do it, why don't we just sign an agreement and do it and no problems." That started this whole first series of agreements which finally led to this forestry support program. A lot of people were actors in that, but this is part of the frustration. We couldn't get enough money to finance this little bit of work by the International Forestry Division, but they were getting several times that much money through AID and other sources. We finally were able to break that loose, primarily because we were willing to provide the ceilings, and they couldn't figure out how to do it without ceilings.

The 1980 Forest Resources Management Project (No. 936-5519) made it possible for U.S. Government Foreign Assistance Programs to provide a faster, more balanced, and functionally sound response to urgent needs for protection, management, and proper use of forests and related natural resources in less developed countries. The program consisted of two parts:

1.) the Forestry Support Program (FSP) and
2.) the joint USAID/Peace Corps Initiative Participating Agency Service Agreement (PASA)

1984 PEACE CORPS INITIATIVE: Peace Corps, in collaboration with USAID under PASA, has achieved substantial and impressive accomplishments. Major activities have included making forestry assessments in 25 countries; conducting regional forestry programming workshops in three countries; conducting two pre-service technical forestry training sessions; And initiating pilot forestry projects in several countries.

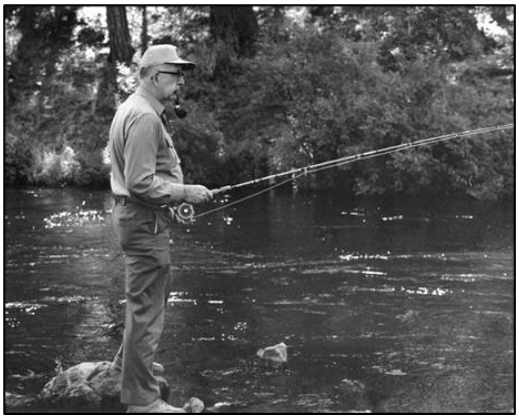
PEACE CORPS POTENTIAL The joint AID/PC Forestry Initiative was designed to deliver grassroots village forestry assistance through collaborative Peace Corps linkages with the Less Developed Countries Mission Assistance programs. In this program USAID supplied professional technical and material support, counterpart training, plus pre- and in-service training development. The US Forest Service Forestry Support Program provided professional support, short-term consultancy services, plus information and documentation for Peace Corps staff. The Peace Corps, for its part; recruits, trains, and places Peace Corps forestry volunteers in all collaborative project settings. In 1984 new forestry Peace Corps volunteers had been placed in Paraguay, the Dominican Republic, Senegal, and Kenya to work on forestry-related projects. Thus USAID/Forestry Natural Resource budget continued to expand and combine with another program called Public Law 480 Food Aid and other private volunteer organizations. The Peace Corps represents an untapped source of expertise for sponsoring increased forestry activities with PL 480 Resources. It was anticipated that greater areas could be planted with PL 480 resources if forestry and land management programs were given greater priority by USAID, host countries, and the Peace Corps.

The 1982 Forest Evaluation Management Project recommended the expansion of collaborative efforts between the Forest Service, USAID, and the Peace Corps. The initiative was not without its critics; the Peace Corps complained that it was not included in project planning and that USAID took too long to implement planned projects. The Forest Service was also called on to make a stronger effort to deliver in-kind contributions to the Forestry Support Program, particularly in providing foresters and other natural resource specialists for short term assignments, as originally planned. The Chief should make clear to the organization, especially field units, the agencies commitment to international forestry.

The Forest Service has continued to work with USAID and the Peace Corps in developing sustainable agricultural systems, particularly emphasizing food supplies and forestry, and developing environmental programs and policies that will protect natural resources and, through emphasizing renewable supplies and conservation, assure better energy security was still seen as a need for developing countries…
In 1987 Congress mandated the USAID to develop a Tropical Forest and Biodiversity Conservation Program, but collaborative efforts seem to have fallen by the wayside. The trilateral partnership between USAID, the Forest Service and the Peace Corps however continued to expand. In 1991 International Forestry was elevated to a Deputy position within the Forest Service organization via the 1989 Farm Bill. Although it was short lived, International Forestry has continued to work within the trilateral partnership with USAID and the Peace Corps. It continues to support USAID's biodiversity efforts abroad through a number of programs and projects.
Bob Buckman 1992 interview: *I encourage young people to consider that route. It's a tough life, but it gives a person two or three advantages. One of them is a language skill, sometimes more than one language. And the second one is that it gives them cultural and technical exposure to a country or region of the world. A third advantage is that they have some employment rights that go with the Peace Corps assignment. The Peace Corps right now is far and away the most attractive employment possibility. It's a tragedy, so much interest, so much need, and so little opportunity. It's difficult.*

But you know the Peace Corps has been around for long enough that earlier participants are beginning to occupy middle and upper-level management positions both in public and private pursuits. Dave Harcharik, who's assistant deputy chief in International Forestry, is a Peace Corps graduate. The interesting thing to me about the Peace Corps volunteers is that life is never the same after they return. Have you noticed that among Peace Corps graduates? They view the world differently. The Peace Corps is providing background and international skills for the U.S. much the same as the colonial services did for Britain and France.

Ed Cliff, FS Chief 1962-1972



Mr. Cliff has contributed impressively to the respect in which the Forest Service is held throughout the world. He has strongly participated himself and has encouraged expanded Forest Service activities in international forestry; for example, the training of foreign nationals, providing technical assistance to foreign governments, and participation in the affairs of appropriate international organizations. During the first ten months of 1965, the Forest Service programmed 296 foreign nationals from 51 countries for academic, observational, or on- the-job training in forestry and related fields. During 1965, the Forest Service responded to over 800 requests for assistance asking for technical advice, procurement of seed, publications, and training films, and help in procurement of specialized equipment and supplies through the Agency for International Development. As of October 1, 1965, there were 57 U.S. foresters, 40 of whom were former Forest Service employees, on 2-year assignments in 27 countries. He has also served as the Chairman of the North American Forestry Commission of the United Nations Food and Agriculture Organization. In 1966 he was Chairman of the U.S. Delegation to the Sixth World Forestry Congress at Madrid and served as Vice President of the Congress. In the same year he served on a special forestry study team in South Vietnam and reviewed the forestry situation in the Dominican Republic.

Chief Cliff was instrumental in saving the Puerto Rican Parrot from extinction. In 1965 there were only about 70 left in the wild. "…as we were leaving the forest I said (to Chief Cliff), "you know that parrot is the only one under the American flag, and it's only on our forest, and if it dies the egg is on our face." And he said, "well, let me look into that when I get back to Washington." And he went to the Fish and Wildlife Service and got $5,000, he went to World Wildlife and got $5,000, and put the Forest Service's $5,000, and he gave us $15,000 to start to employ somebody. And that was the beginning of the program. And Fish and Wildlife got bigger on it and now is carrying, I think, 50 percent of the load. We've still got a lot of money in it. We saved it, I'm sure, the people that are working with said without us it would be gone. Whether we're going to get it on its feet, they talk about 250 nests, and we're using nests with boxes that we make, or hollowing out natural trees. (Wadsworth/Steen 1992).

After retirement from the Forest Service, Cliff began a new and active career in international forestry. Beginning in 1973 he embarked on a series of international forestry consultant projects with the United Nations Development Program (UNDP), Food and Agriculture Organization of the United Nations (FAO), U.S. Agency for International Development (USAID), International Executive Service Corps (IESC), and others. Up to the present, he has completed 14 missions involving travel and work in 21 countries in Central and South America, Africa, Asia, and the Mediterranean region.

1973 Greece
1974 FAO Honduras as head of a nine-member team to make recommendations on the overall management of forest, including wildland fire industrial development.
1975 Cliff was a member of a three-man mission to review FAO's Forest Industry Advisory Group's work in all of Central and Latin America.
1975 Chile to evaluate the FAO's Forestry Technical Assistance Program.
1976 Cliff visited six countries in Africa to evaluate the FAO's Technical Assistance program.
1976 Cliff went to Brazil as a volunteer consultant with the International Executive Service Corps (IESC). IESC has experts available to help employees of private companies and government agencies in developing nations acquire the skills needed to become more efficient and productive. In Brazil, Cliff was assigned to a company that needed advice on planting a large area of trees in order to make an integrated pulp and paper company. He advised the company on methods of reforestation and development of a transportation system.
1976 back to Chile under the sponsorship of the United Nations to develop the New Forestry Technical Assistance Program.
1977 evaluated FAO's forestry program in Turkey.
1977 part of a two-man mission to review India's forestry institutions and made recommendations to the Indian Government on how to improve the areas of forestry education, research, and administration.
1982 Lead forester of a three-person team to review success of EVALUATION OF FOREST RESOURCES MANAGEMENT PROJECT NO. 936-5519. The Forestry Support Program was established by USAID in the Bureau for Science and Technology, Office of Forestry, Environment, and Natural Resources as a joint effort by USAID, Forest Service (FS), and the Office of International Cooperation and Development (OICD). It is funded by AID under a Resources Support Services Agreement (RSSA) signed on August 30, 1980, for a 4-year period Fiscal Year 1980 through 1983.

Under the terms of the RSSA, the Forest Service is responsible for management of the FSP and the Director of International Forestry participates in major program and policy decisions. Although the mid-term review team had a number or important recommendations, they did conclude that the Forestry Support Program is fulfilling the purpose for which it was conceived and designed. FSP is meeting a heretofore unsatisfied need for forestry and natural resources expertise within USAID. Opportunities are being offered by the U.S. forestry community to contribute to assistance in developing countries and to keep informed about worldwide forestry activities and needs. The FSP effort has been generally well accepted by USAID Regional Bureaus, other USAID Bureaus, Missions, other concerned departments of the U.S. government, and host governments. The Team concludes that this effort should be continued and expanded. FSP should deal with production forestry as well as local needs of rural poor.

1985 Cliff served as a Delegate or Chief of Delegation to five FAO Forest Committees in Rome, and to World Forestry Congresses in Seattle (1960), Madrid (1966), Buenos Aires (1972), Jakarta (1978), and Mexico City. Between global assignments, Cliff works as a consultant with the United States Agency for International Development. With USAID, he has helped set up two forestry research projects which are operated by USDA's Forest Products Laboratory in Madison, Wis.

The Puerto Rican Parrot

The Puerto Rican Parrot, *Amazonia vittate*, is the only native parrot in the United States. The Puerto Rican Parrot or Puerto Rican Amazon is a small parrot measuring 11.0–11.8 in (28–30 cm). The bird is a predominantly green in color with a red forehead and white rings around the eyes. By the early twentieth century, the Puerto Rican parrot disappeared from the small islands surrounding the mainland, while the remainder of the population became fragmented. By 1937, only a single isolated population of approximately 2000 remained in the rainforest of the Luquillo Mountains.
From 1953-1956 Commonwealth Biologist Jose Antonio Rodríguez-Vidal supported by a grant from the Fish and Wildlife Service, conducted the first detailed study of the parrot. Rodríguez-Vidal found that the parrot population in the mid-1950s consisted of only about 200 individuals, and those birds were localized in one small area in eastern Puerto Rico—the Luquillo Forest (Rodríguez-Vidal, 1959). Rodrequez-Vidal was the first to draw attention to the decline in population numbers of the Puerto Rican Parrot, although Ventura Barnes had previously shared his concern on their dwindling numbers.

In 1966 Víctor Márquez counted 70 Puerto Rican parrots in a single flock. In March 1967 the Puerto Rican parrot became one of the first species to be listed under the U.S. Endangered Species Act.

Frank Wadsworth, then the Forest Service's Director of the Institute for Tropical Forestry, in conversation with Forest Service Chief Ed Cliff on the Puerto Rican Parrot was able to convince him that the parrot was in serious trouble as a viable population. The Chief taking the concern back to Washington was able to craft a collaborative partnership between the USDA Forest Service, the Fish and Wildlife Service, the Commonwealth of Puerto Rico and the World Wildlife Fund to begin the Puerto Rican Parrot Recovery Project in 1968. With $25,000 seed money the partnership was able to bring Cameron and Kay Kepler to Puerto Rico to conduct research on the parrot and other species of conservation concern. Their research focused on determining population size and distribution within the Luquillo Forest, where they were able to develop reliable censusing methods. By the end of the year only 24 birds were counted. In 1972 populations numbers continued to decline with only 14-18 in the wild and 2 more in captivity. The next year the Luquillo Aviary was established within the Caribbean National Forest and a captive breeding program was initiated. The first aviary was located in a CCC-constructed hurricane proof barracks located in the El Yunque National Forest.

The Puerto Rican parrot population reached a low of 13 birds in their last wild habitat, the lowest point in the history of the species by the mid-1970s. Through the efforts of the US Forest Service, the Fish and Wildlife Service, the Department of Environment & Natural Resources of the Commonwealth of Puerto Rico and many others, in 2013, there were up to 84 wild birds plus 16 fledged chicks at Rio Abajo and about 20 wild birds at El Yunque. Although there have been setbacks as a result of back to back hurricanes in 2017 that seriously affected the parrot numbers and their habitat, population numbers continue to grow.

As a result of this 30-year partnership between the US Forest Service, the Puerto Rico Department of Natural and Environmental Resources and the Fish and Wildlife Service, and others, Puerto Rico is now home to about 250 wild parrots at Maricao, El Yunque, and the Río Abajo State Forest along with 469 birds held at the tow operating aviaries on the island (March 2022).

By the late 1930s, a census estimated some 2,000 remaining parrots, all in the Luquillo Mountains. Yet, even within the protective boundaries of the forest, the birds continued to decline—200 counted in 1959, a single flock of 70 in 1966, no flocks at all by the end of the decade. A number of factors contributed to the startling decline. Several of them, easy to list in retrospect, took a tremendous amount of time and analysis to understand.

Back in the 1930s, workers disturbed habitats while constructing trails and building a road through the forest. Local residents continued to hunt parrots to sell as pets, often destroying nests as they did so. Loggers removed trees for fuelwood, timber, and posts. Foresters cleared out old, decaying, cavity-ridden trunks: these trunks, biologists eventually learned, were favorite parrot nesting sites. Competition developed over who would use the limited remaining cavities: bees needed them to make their honey, and aggressive Pearly-eyed Thrashers tossed parrot eggs out of nests that appealed to them. Predators stalked the parrots, maggots lodged in the skin of chicks, hurricanes took their toll, and the military and radiation experiments may have affected the birds. [Excerpted from the book The Parrots of Luquillo: Natural History and Conservation of the Puerto Rican Parrot, by Noel F.R. Snyder, James W. Witey, and Cameron B Kepler.

Puerto Rican Parrot at the Iguaca Aviary in the El Yunque NF. Carlos Giusti / AP

Don José A. Rodríguez Vidal

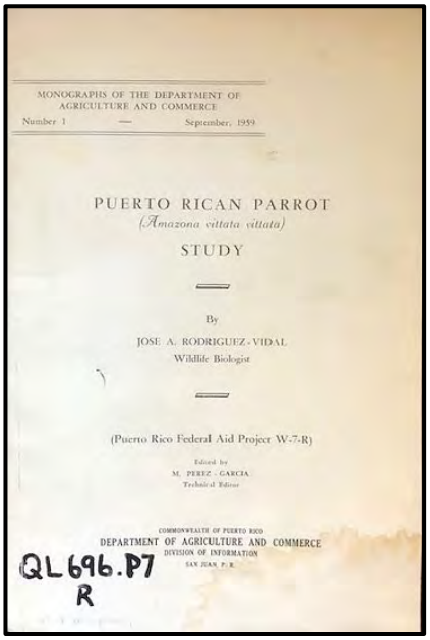
Don José A. Rodríguez Vidal completed his degree in agronomy at the University of Puerto Rico Mayaguez, and started his professional life as a vocational agriculture teacher at Barrio Garrochales in Arecibo. In 1949, he moved to Barrio Bayaney in Hatillo to teach agriculture to sixth, seventh, and eighth grade student and later at Barrio Bajadero in Arecibo.

In 1953, Don Tony started working as a biologist for the Division of Forests, Fish and Wildlife. Initially he spent several months on an important research study of the doves (tórtolas) that inhabited the dry forests of Guanica Bay. Next, in 1956, Don Tony was assigned to study Iguacas (Puerto Rican parrots) in EL Yunque National Forest. This critical comprehensive study was one of the most important scientific endeavors Don Tony was fortunate to be involved in. This research project took three years to complete with the results challenging well-established theories about parrot population dynamics and warned the Puerto Rican government about the endangered status of this native bird.

Eventually, the Forest Service, Fish and Wildlife, the Commonwealth of Puerto Rico government, and other partners joined together to begin a cooperative program to rescue the Puerto Rican parrot from extinction – a program that continues today. Population numbers are growing, although they are subject to setbacks cause by natural disasters such as hurricanes.

Rodriquez Vidal went on to serve as Director of the Vivero de Árboles Forestales (tree nursery), a position he kept for 24 years, professor at the University of the Sacred Heart and later, advisor for the Department of Agriculture and Natural Resources.

In 2007, the Puerto Rican Senate recognized researcher José Antonio "Tony" Rodríguez Vidal, for his hard work in the protection and conservation of the Puerto Rican parrot.


MONOGRAPHS OF THE DEPARTMENT OF AGRICULTURE AND COMMERCE
Number 1 — September, 1959

PUERTO RICAN PARROT
(Amazona vittata vittata)
STUDY

By
JOSE A. RODRIGUEZ-VIDAL
Wildlife Biologist

(Puerto Rico Federal Aid Project W-7-R)

Edited by
M. PEREZ-GARCIA
Technical Editor

COMMONWEALTH OF PUERTO RICO
DEPARTMENT OF AGRICULTURE AND COMMERCE
DIVISION OF INFORMATION
SAN JUAN, P. R.

1967 252 foreign nationals were in the U.S. for forestry related training; over 800 requests for technical consultation from 50 countries were filled; and 35 Forest Service people were serving on one-year assignments in 20 countries. By the 1970s the men who had traveled to the US for education and training had risen in the ranks of their own forestry agency and did not need lengthy two-year project managers; they only wanted a US expert to come and check their project/program and offer additional advice. During the 1960s and before, overseas details were traditionally two years in length (Robert Winters 1986 interview).

1968

- George Jemison (R&D Deputy Chief) becomes the President of IUFRO.
- the Foreign Forestry Unit was upgraded to the Division of International Forestry, with a staff of 19, including three positions that worked with the FAO to direct foreign assignments of FS foresters, provide appropriate researchers and research findings, and manage education and training opportunities for foreign students. Typically, the FS has contributed to10-15% of requested foresters for technical assistance with the rest coming from universities, etc.
- Chief Ed Cliff forms interagency partnership to create the Puerto Rican Parrot Recovery Project. (see other info on parrots pg 46 and others)

1971 The US hosted the IUFRO Congress in Gainesville, FL. George Jemison, President.

1974 Juan Muñoz appointed first Puerto Rican Forest Supervisor on the El Yunque National Forest.

In 1974 Juan Muñoz was appointed Forest Supervisor of the EYNF/LEF after it was separated from the Institute of Tropical Forestry where Frank Wadsworth continued on as Director. Previously Juan had served as a forester on El Yunque and was responsible for the 1962 timber management plan for the EYNF/LEF which established available timber stands, volume, and projected sustainable silvicultural harvest.

During Muñoz' tenure as Forest Supervisor, mahogany reforestation efforts were intensified in secondary brush lands on the lower slopes of the Luquillo Mountains and the USDA Forest Service established a tree nursery at El Yunque to provide seedlings for reforestation programs. He also contributed to the development of new forest laws for protecting and conserving the Commonwealth forests of Puerto Rico. As a Puerto Rican, Juan recognized the need to immerse the island's young people in its rich cultural and natural resources – which he accomplished through the establishment of the Youth Conservation Corps (YCC) program on the Forest.

1977 The Forest Service detailed a full-time professional forester to Peace Corps headquarters without charge. His efforts were central to initiating a separately defined forestry thrust in Peace Corps programs.

Table 1 -- Number of USDA forestry project assignments[1/] and consultancies[2/] by time periods and financing agency

Date of assignment[3/]	Project assignments by financing agency				Consultancies by financing agency			
	FAO	AID	Other	Total	FAO	AID	Other	Total
1945-49	2	3	7	12	-	-	5	5
1950-54	8	24	6	38	3	8	10	21
1955-59	7	42	1	50	5	22	1	28
1960-64	14	53	2	69	10	30	1	41
1965-69	38	24	4	66	24	38	8	70
1970-74	18	14	6	38	16	14	15	45
1975-79	4	5	1	10	13	8	5	26
Total	91	165	27	283	71	120	45	236

1/ Assignments at least for a 1-year period and usually for 2; normally involving transfer of headquarters and family.
2/ Less than 1 year in duration and not involving transfer of headquarters.
3/ Date of assignment is the beginning of foreign duty at a given post even though the assignment continued for 4, 6, or more years.

1975 Robert Buckman appointed Deputy Chief of Research and Development, of which IF was a part; only six individuals in international forestry at the time he took office. When he left there were 25.

ca. 1976 Max Peterson: The first study that was done for USAID, as that agency began to shift its focus away from technical and capital assistance programs to "basic human need" assistance that included food and nutrition, education, and health. It was looking at forests worldwide in terms of fuel needs of people, and their potential effects. "The Forest Service did that for USAID, and then we began this thing called the *Forestry Support Program*, where the Forest Service basically acts sort of as a middle-man where they have directors for a different part of the world, and if a country in Latin America needs a certain kind of assistance they come to that group and they know all the consultants available to give that kind of help. So the backup might be from National Forests, it might be from State and Private, it might be from a university, it might be from a consultant. That work that we've begun then has just continued to grow, and finally when the Congress passed the 1990 Farm Bill, they figured the Forest Service really needed an improved charter. We wrote a little charter for Research in international forestry into the 1978 Research Act. Up until that time there was just a little bit of authority in the earlier research act that talked about exchanging seeds and a few things like that, and we were using that as our little wedge to have authority to do international forestry. We put a little more in the 1978 Research Act, and then it was the 1990 Farm Bill that suddenly spelled it out. I think it was sort of the maturity of the program by then that caused Congress to move in and do that. So it's kind of an evolutionary process (Steen and Peterson 1992: 178).

Buckman 1992 interview: Forestry Support Program, FSP. And it's still there and it's growing. USAID provided funds for staffing and the Forest Service developed skill rosters and background information that can be called on for forestry programs anywhere in the world. The upshot was that International Forestry started to grow, and then attracted still other funds and more activities. My office directed some additional money into it as well.

When I left the agency in 1986, International Forestry had gone from six to twenty-five people (View from the Top: 1994: 313)

1978

- US Strategy Conference on Tropical Deforestation
- Forest and Rangeland Renewable Resources Research Act of 1978 Section 2: (c): It is the purpose of the Act to authorize the Secretary to expand research activities to encompass international forestry and natural resource issues on a global scale.

1980 – 1996

1981 "The Forestry Support Program was established by AID by the Bureau for Science and Technology, Office of Forestry, Environment and Natural Resources, AID. The program is a joint effort of AID, Forest Service (USDA) and the Office of International Cooperation and Development (OICD) of USDA. It is funded under a broader project, Project Number 936-5519, a Resources Support Services Agreement (RSSA) entitled "Forest Resources Management". The Forestry Support Program's component of the RSSA includes initial funding of $3,700,000 for the FY-80 through FY-83, four-year period." International forestry effort Triumvirate: IF providing technical expertise, USAID providing development funds and guidance, and the Peace Corps providing grass roots support and contacts.

1980-1984 Forest Service/A.I.D. and Peace Corps Forest Management Pilot Program

> 1982 MID-PROGRAM SOCIETY OF AMERICAN FORESTERS' EVALUATION TEAM,
> Edward P. Cliff Consulting Forester, Retired Chief, USDA, Forest Service
> Carl M. Gallegos -- Manager, Forest Management Systems International Paper Co.
> Harry J. McCarty -- Consulting Forester, Retired from Food and Agriculture Organization of the United Nations and Bureau of Indian Affairs, U.S. Department of the Interior

The United States Agency for International Development (AID) withdrew from forestry involvement in the late 1960s but gradually began re-entry during the late 1970s. By 1982, AID had 96 on-going and planned forestry-related projects in 37 countries with $215,753,000 budgeted for forestry-related activities. AID had lost virtually all its forestry expertise by the time this expansion started, and forestry talent is still spread thin. Renewed efforts have been devoted almost entirely to social forestry and conservation activities, such as village woodlots, fuelwood plantations, agroforestry, and watershed protection.

In recognition of AIDs limitations to adequately identify, design, and supervise forestry projects, the Bureau for Science and Technology. Office of Forestry, Environment, and Natural Resources (S&T/FNR) initiated the Forest Resource Management Project in FY 1980. Two related programs are involved: The Forestry Support Program (FSP) established by a Resources Support Services Agreement (RSSA) between the Forest Service and the Office of International Cooperation and Development (OICD) both of the U. S. Department of Agriculture and The Peace Corps Initiative covered by a Participating Agency Service Agreement (PASA).

The Forestry Support Program (FSP) backstops AID forestry activities. The program assists in recruiting and furnishes short-term consulting services. AID Missions receive help with project identification and design; and FSP personnel help organize and participate in training conferences and workshops. The Peace Corps through a Participating' Agency Service Agreement (PASA) encourages and promotes increased AID/Peace Corps collaboration in village forestry and natural resource conservation. The emphasis is on programming, planning, and training.

The Forest Resource Management Project has two main components-- the Forestry Support Program (FSP), which is managed by the Forest Service and OICD of the United States Department of Agriculture, and a Joint Collaborative Forestry Initiative with the Peace Corps implemented by a Participating Agency Service Agreement (PASA).

- AID provides funds to Peace Corps for programming assistance, technical support, and counterpart training. For active forestry projects, funds are supplied for transportation, tools, and expenses such as tree nursery supplies. Under this arrangement, the Peace Corps has fielded design teams in developing countries to develop, with AID, collaborative forestry projects which can be implemented by volunteer foresters. AID offers trained technical expertise, establishes field contacts, and provides material support essential to the projects.
- The Peace Corps is to provide approximately 120 new forestry volunteers--in addition to new foresters recruited for regular programs--over the life of the project. A headquarters unit has been established by the Peace Corps to give necessary central administration and coordination for the PASA. Project design, implementation, and monitoring are primarily the responsibility of regular Peace Corps field staff. The Peace Corps has around 400 volunteers on conservation/ natural resource projects; 225 of these are working in forestry related activities. Peace Corps forestry efforts are mostly concentrated on community forestry, reforestation, agroforestry, forest management, wood conserving technologies, environmental education, and parks and wildland management. The non-forestry conservation work includes such things as erosion control, dune stabilization, and wildlife and fisheries management.
- The Forestry Support Program provides technical help to AID in designing, establishing, managing, and troubleshooting field projects in forestry and natural resources.

1982 Report on USAID and PC collaboration (Peace Corps/AID Forestry Participating Agency Service Agreement (PASA), including a Resources Support Services Agreement (RSSA) with the Forest Service: "Collaboration of Two Independent Agencies the Peace Corps and AID carefully identified and preserved their agency identities and strengths; AID did not seek to operate one-on-one village level programs; nor did it try to dictate terms of any collaborative program. AID agreed to provide funds for training assistance to host nation counterparts through the Peace Corps, and to provide actual materials for conducting new and expanded projects. In addition, AID made available to the volunteers its Forest Resources Support Network, the result of AID's agreement with the Forest Service, to provide expert guidance on the wide range of variables that are encountered in forest management and reforestation programs in various climates and terrains."
"In a Resources Support Service Agreement (RSSA) signed between AID and the U.S. Forest Service, an 'International Resources Support Network was developed, at a $2.5 million cost to AID and $2 million cost to the Forest Service. The Network was chiefly directed to the needs of AID Missions in lesser developed nations for "socially and technically relevant professional expertise in forestry resources" -- including immediate backstopping for missions in specific cases, establishment of a comprehensive network, and guidance to AID regional and headquarters staff on evaluation of programs and dissemination of promising -6 approaches and techniques. The Peace Corps volunteers would have access through AID to this technical support staff as well. Both the RSSA with the Forest Service and the PASA with the Peace Corps were part of the same project plan" (pg. 5-6).

"5. Expanded International Forestry Network Through the PASA, the Peace Corps obtained access to the Forestry Resources Support Network, obtaining the services of U.S. Forest Service specialists on numerous occasions. At the same time, increased Peace Corps programs and volunteers in forestry increases AID's network of foresters who are experienced in developing countries, have language skills and can work in cross-cultural institutional settings. In this sense the PASA contributed to the goals of the RSSA with the U.S. Forestry Service as well" (pg. 79). A FINAL REPORT AND VIEW TOWARD THE FUTURE FOUR YEARS OF

AID/PEACE CORPS COLLABORATION IN FORESTRY AND NATURAL Resources (1980-1984).

APPENDIX A

PEACE CORPS FORESTRY ASSESSMENTS

Country	Assessors	Station	Dates
INTER-AMERICA			
Honduras	J. Shores	U. of Michigan	1/6 - 1/31/81
	R. Birdsey	USFS (Detail)	1/6 - 1/31/81
Guatemala	J. Shores	U. of Michigan	1/6 - 1/31/81
	R. Birdsey	USFS (Detail)	1/6 - 1/31/81
Ecuador	J. Burchfield	USFS (Detail)	1/5 - 2/7/81
	R. Donovan	Assoc. in Rural Development	1/5 - 2/7/81
Jamaica	J. Burchfield	USFS (Detail)	1/5 - 2/7/81
	R. Donovan	Assoc. in Rural Development	1/5 - 2/7/81
Dominican Republic	J. Burchfield	USFS (Detail)	1/5 - 2/7/81
	R. Donovan	Assoc. in Rural Development	1/5 - 2/7/81
Costa Rica	J. Shores	U. of Michigan	2/23 - 3/27/81
	B. Cross	U. of Michigan	2/23 - 3/27/81
Paraguay	J. Shores	U. of Michigan	2/23 - 3/27/81
	B. Cross	U. of Michigan	2/23 - 3/27/81
	[illegible]	U. of W. Indies	4/20 - 6/15/81
Botswana	D. Heinz	USFS (Detail)	2/23 - 4/8/81
	M. Davis	USFS (Detail)	2/23 - 4/8/81
Kenya	D. Heinz	USFS (Detail)	2/23 - 4/8/81
	M. Davis	USFS (Detail)	2/23 - 4/8/81
Tanzania	D. Heinz	USFS (Detail)	2/23 - 4/8/81

1981 Kenya Project: Ten Peace Corps Volunteers will be requested for the Ministry of Energy U.S. AID Renewable Energy Development Project. The Volunteers will be extension workers, promoting more fuel-efficient wood burning cook stoves and establishing woodlots. There also appears to be strong potential for increased Peace Corps involvement with both the Ministry of Environment and Natural Resources and the Ministry of Agriculture.

1983 Congress amended the Foreign Assistance Act to direct USAID to focus on tropical forests and biological diversity.

1985+ Disaster Assistance Support Program (DASP) and Disaster Assistance Response Team Assignments (DART) International Forestry has been active in partnership with A.I.D. in providing disaster preparedness/ training, coordination, and DART assignments across the globe.

1986 (Congress) gave the Forest Service the authority to engage in international research under the Foreign Research Act.

1986 USADI/FS Forestry Support Program had 153 authorized, planned, active, and recently completed forestry and natural resources projects in less developed countries

1990 The International Forestry Cooperation Act of 1990 (P.L. 101-513 Title VI), as amended by the Hawaii Tropical Forest Recovery Act of 1992 (P.L. 102- 574, passed on October 29, 1992), 16 U.S.C. §4501 et seq.

1991 Final dissolution of the Soviet Union.

1991 International Forestry separates from Research and Development to become a stand-alone Deputy position as included in the 1989 Farm Bill, the authorizing legislation of both agriculture and forestry.
1989 Farm Bill: (7 USC 670). SEC. 2405. OFFICE OF INTERNATIONAL FORESTRY.
(a) ESTABLISHMENT. —The Secretary, acting through the Chief of the Forest Service, shall establish an Office of International Forestry within the Forest Service within six months after the date of enactment of this Act.
(b) DEPUTY CHIEF DESIGNATION. —The Chief shall appoint a
Deputy Chief for International Forestry.
(c) DUTIES. —The Deputy Chief shall—
(1) be responsible for the international forestry activities of the Forest Service;
(2) coordinate the activities of the Forest Service in implementing the provisions of this title; and
(3) serve as Forest Service liaison to the director for the program established pursuant to section 2402 (Director of the USDA Climate Change Program)

1991-2001 Forest Resource Management (FRM II)
U.S. Agency for International Development, the Forest Service, the Peace Corps, and USDA's Office of International Cooperation and Development. The 10-year, $45 million USAID project goals included:

- To promote the contribution of forest-based natural resources to the development of key tropical countries
- To strengthen institutions associated with management of those forest resources.
- FRM II has four main components: (1) technical assistance and training; (2) service and support; (3) private enterprise development; and (4) donor coordination

During 1990 and 1991, FSP provided more than 70 technical advisors to USAID. Increases were seen, particularly in activities associated with Agroforestry and Women in Development, as those became increasingly important to USAID. Technical assistance supported a wide range of on- going field projects in Africa (19), Latin America and the Caribbean (21), and Asia (32).

1990-1991 Restructuring of all three agencies (Forest Service, USAID and USDA Office of International Cooperation and Development) to meet evolving international needs for better natural resources management. During 1990 and 1991, the Forestry Support Program provided more than 70 technical advisors to USAID. Increases were seen, particularly in activities associated with Agroforestry and Women in Development, as those became increasingly important to USAID. Technical assistance supported a wide range of on- going field projects in Africa (19), Latin America and the Caribbean (21) and Asia (32). These 72 assistance activities took place in some 35 countries.

1991 President Bush's Forests of the Future Initiative was designed to stimulate effective actions for international forest conservation and sustainable use and builds on the National Forest Systems new ecosystem management approach.

1992 Rio Summit highlighted the importance of forest, especially tropical forests, and their associated biodiversity. Forestry spending spiked in 1994 and again in 1999-2000 and remained high through 2002. (International Forestry Review 5(4): 384-386, 2003)

1993 International Aid was much reduced, and the Forest of the Future Initiative was cancelled because of budget cuts implemented by the new Clinton Administration. However, the Forest Support Program continued to provide services to 29 countries and participated in 81 projects.

1993 Since 1981 the Forest Service has had a long-term contract with USAID to provide them with the skills necessary to plan and design forestry projects in their regional bureaus. The new concept in international

forestry reorganization is to provide the services to USAID without reflecting a specific organizational structure. This has been done because the Forest Service services a number of clients in addition to USAID, such as the Tropical Forestry Program, the U.S.- Asia Environmental Partnership, the Peace Corps, direct bilateral cooperation, and other situations where it is more advantageous to have Forest Service staff available to all these customers rather than being dedicated to just one.

1997 – 2022

1998 TROPICAL FOREST CONSERVATION ACT OF 1998 was enacted to support and seek protection of tropical forests around the world (Debt for Nature).

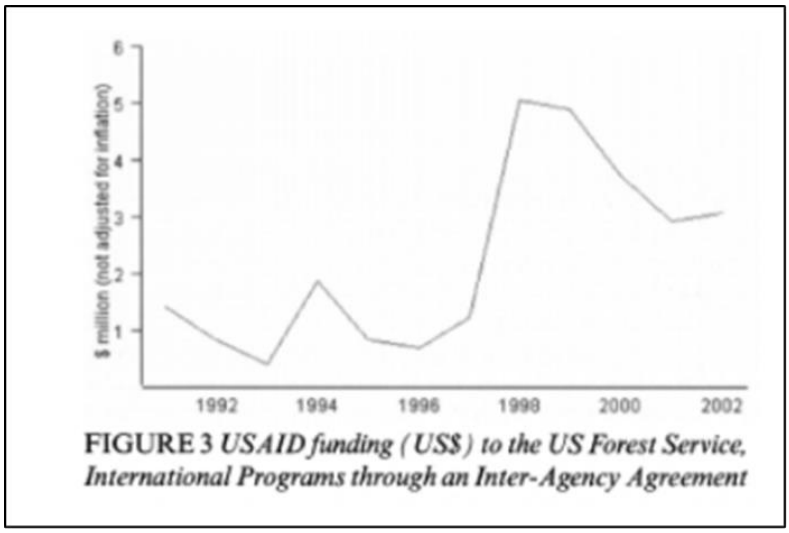


FIGURE 3 *USAID funding (US$) to the US Forest Service, International Programs through an Inter-Agency Agreement*

A.I.D. funding increased exponentially between 1997 and 1998

1997 IF organization shifted away from a Deputy position to Staff position reporting to the Chief.

1998 the Forest Service hosted a regional workshop on how to carry out the *FRA 2000* remote sensing survey in North America, which FAO is using as a model for other regions. The US has since completed its survey, is assisting Mexico with its survey and, through the International Institute for Tropical Forestry in Puerto Rico, has coordinated surveys for the Caribbean, including country capacity building. In addition, the US is providing technical assistance to FAO for the remote sensing and non-wood goods and services components of FRA 2000, as well as consultants to assist FAO with developing related strategic and implementation plans.

USFSIP in the 21st Century

The Forest Service's International Program continues to work with partners on sustainable forestry, climate change, illegal logging/wildlife trafficking, disaster assistance, migratory species, wetlands, greenhouse gas mitigation and urban outreach around the world into the 21st Century.

2000 Drought/Famine – Ethiopia-Eritrea
2000 Southern Africa Floods – Mozambique

2001 Earthquake – India
2001 Humanitarian Emergency – Central Asia/Afghanistan
2009 The US Forest Service has been working in Bangladesh in partnership with USAID to address critical issues in natural resource management through a long-term partnership with the Bangladesh Forest Department (BFD) in order to provide capacity building opportunities and technical assistance to support forest mapping and remote sensing initiatives. Most notably, through the support of the USAID and in collaboration with the United Nations FAO, the USFS managed the SilvaCarbon Bangladesh program which provided technical assistance to support the development of a sustainable national forest inventory system for Bangladesh. Other areas of focus for joint partnerships have included improved forest management through building geospatial capacity, carbon pool estimation, forest infrastructure development, and forest planning.

Starting in 2019 US Forest Service in partnership and with funding from USAID Bangladesh, began implementing the 'Community Partnerships to Strengthen Sustainable Development' (Compass) program. Compass will address natural resource management challenges in Bangladesh through establishing a youth conservation corps, strengthening community capacity, and promoting public participation, providing direct technical support to Bangladesh Forest Department, and strengthening the capacity of academic and research institutions in natural resource management and resilience.

2004 The U.S. Forest Service has been collaborating with Bhutan on forest management since 2004. In 2008, Bhutan adopted a new constitution that mandated "a minimum of sixty percent of Bhutan's total land shall be maintained under forest cover for all time." The purpose of this mandate was to ensure conservation of natural resources and prevent degradation of the ecosystem. With support from the U.S. Agency for International Development (USAID) and the U.S. Department of State, the U.S. Forest Service works with Bhutan to help them achieve this goal, through capacity building and technical assistance related to forest management, fire control, forest carbon inventory, and different approaches to address climate change through sustainable forest management.

With support from USAID/Office of Foreign Disaster Assistance support, the U.S. Forest Service also strengthens disaster response capacity in Bhutan through partnerships with the Department of Disaster Management within Bhutan's Ministry of Home and Cultural Affairs. The U.S. Forest Service has conducted Incident Command System (ICS) and Emergency Operations Center (EOC) trainings since 2012, and in 2017 Bhutan's Prime Minister mandated ICS as the national standard disaster management system. Capacity building trainings have targeted Bhutanese officials at all levels of government to include fire, police, search and rescue, civil servants, municipal planners, as well as civil society organizations.

2007 Forest Service scientists shared the Nobel Prize with former Vice President Al Gore and other scientists worldwide for their work with the United Nations Intergovernmental Panel on Climate Change.

2011- present Buy-in to the U.S. Forest Service Participating Agency Program Agreement (PAPA) for Sustainable Forest Management.


The Forest continues to work in partnership with tropical countries such as Brazil and Indonesia to advance sustainable forestry practices, just as George Ahern and Gifford Pinchot did in the Philippines and Frank Wadsworth did in Puerto Rico.

USAID has partnered with the United States Forest Service since 2011 to help strengthen the capacity of the Department of Environment and Natural Resources, local governments, indigenous peoples, communities, and the private sector in sustainable forest management, including forest change monitoring using geospatial technologies, forest inventory analysis forest land use planning, forest restoration, forest fire management and

development of the national forest monitoring system. Other countries the Forest Service has partnered with USAID include Cambodia 2013+, China, India, Indonesia 2012-2014, LAO PDR, Malaysia 2016-2020, Mongolia 2012, Nepal 2009, Philippines 2009, Thailand 2011, Timor 2015-2019, Vanuatu 2006-2016, and Vietnam.

2010-2020 Sustainable Landscape Assessment for the Philippines US FS IF report for USAID to gauge Reducing Emissions from Deforestation and Forest Degradation (REDD) efforts.

2012 the Forest Service has partnered with the Research Institute for a Sustainable Environment (RISE) at the American University in Cairo to design and implement rooftop garden systems.

2013 Forest Service scientists collaborated with the United Nations and scientists worldwide to produce the Intergovernmental Panel on Climate Change's Fifth Assessment Report.

2013-2016 US Forest Service CSLP activities target landscape-level engagement with communities, non-governmental organizations, Government of Ghana agencies, the private sector, and international partners to Improve public awareness on the relationship between ecosystem services and livelihoods through intensive sensitization efforts of the CSLP team, students, farmers, and other stakeholders. And create alternative economic platforms such as beehives in order to harvest honey.

2013-2016 The designation of the Rufiji MRTF in Tanzania marks an important milestone for the East Africa Mangrove Carbon Project started in 2013 with funding from the USAID and U.S. Forest Service International Programs to build capacity in the region to incorporate mangrove ecosystems into REDD+ readiness activities, and to develop the information needed for climate change adaptation and mitigation strategies that include the needs of the human communities that depend on mangrove forests for their livelihoods.

2014-2019 The Strengthening Forest Monitoring in Bangladesh activity; FS will help build capacity of the Bangladesh Forest Department, promote forest conservation research, and develop a Youth Conservation Corps focused on protecting these tree resources.

2014 scientists and staff from the Washington Office and the stations played a leading role in planning the XXIV International Union of Forest Research Organizations World Congress.

2015 DART Historic Flooding in Tbilisi, Georgia: three technical teams provided critical support on a range of issues. With support from the U.S. Agency for International Development, the first two teams tackled rapid assessments of the flood and landslides and even consulted on emergency measures to create homes for the surviving zoo animals. The last team identified options for stabilizing the landslide and reopening damaged roads.

2015 International Watershed Management Seminar organized by the United States Forest Service International Program in Arizona

2015-2020 Central Africa Regional Program for the Environment (CARPE): U.S. Forest Service

2016 International Seminar on Forest Landscape Restoration**,** Corvalis, OR IUFRO/USFS-IP

2016 USFS-IP and North Rangeland Trust in Kenya initiated a partnership of technical cooperation. The partnership comprises several areas of mutual interest and collaboration that center on rangeland management.

2016-2021 Indonesia U.S. Forest Service PAPA

2016-2019 Cambodia U.S. Forest Service PAPA

2016 – 2022 The U.S. Forest Service and USAID are partnering with African Parks at Nkhotakota Wildlife Reserve to restore critical habitat, enhance tourism potential, and improve local livelihoods in border communities. The new environmental education center is one aspect of their work. Other FS activities focus on five overarching themes: fire management and training, ecological management, protected area infrastructure design, capacity building for law enforcement, and community engagement and outreach. With support from USAID/Malawi, the USFS and African Parks have designed a program around these themes that, for the immediate future, will focus on Nkhotakota W.R.

2019-2020 Ecotourism Opportunities in the Mount Nimba Landscape of Liberia USAID/USFS-IP

2021 USAID and U.S. Forest Service launched a new program for Brazil Forest Management and Fire Prevention**.** The USAID, in partnership with the Government of Brazil and the U.S. Forest Service, launched the program for *Brazil Forest Management and Fire Prevention.* The new 5-year program incorporates fire prevention and management, governance and management of forests and natural resources, and the sustainable use of protected public lands. Program partners will work closely with stakeholders to strengthen technical capacity in those areas while promoting women and indigenous people's participation and leadership in forest and fire management.

UPDATE In January and February 2022, 63 endangered Puerto Rican parrots were released into the wild at El Yunque and other wild areas in Puerto Rico. After the species and their habitat was absolutely decimated during back-to-back hurricanes Irma and Maria in 2018, the release of these parrots was an amazing step. "The Puerto Rican parrot is not only emblematic of the island's beauty but also a symbol of resiliency," said Leopoldo Miranda-Castro, FWS Regional Director of the South Atlantic-Gulf and Mississippi regions, which includes Puerto Rico. FWS was one of the original partners in the Puerto Rican Recovery Plan created by Forest Service Chief Ed Cliff in 1968 that led to the recovery of the only parrot native to the United States. In 1968 when the plan was first implemented across the island, there were only 24 birds all located in El Yunque National Forest.

In this Nov. 6, 2018 photo, Puerto Rican parrots huddle in one of the flight cages located in the facilities of the Iguaca Aviary at El Yunque.Carlos Giusti / AP

Significant early agency foresters with an interest in International Forestry

Franklin B. Hough FS Chief (1881-1883)
Hough became Chief of the Division of Forestry when it was created in 1881 and spent that summer in Europe gathering information about forestry practices and speaking with prominent forestry leaders there.

Gifford Pinchot FS Chief (1898-1910)

- **1890** lunch with Schlich at Coopers Hill where Schlich advised, based on experiences in India and Burma, that "government forests are the most pressing" and that private forest ownership was not preferred for conservation purposes.
- **1891** On lessons learned from Schlich and Brandis in India: "the care of forests is the duty of the nation,"
- **1902** – At the invitation of George Ahern, Pinchot made a personal inspection of forest resources of the Philippine Islands and recommended forest policy for same to President Theodore Roosevelt which led to establishment of the Philippine Forest Service.
- **1903** At Ahern's request Chief Pinchot prepared a report of his trip that consists of "Recommendations on Policy, Organization, and Procedure for the Bureau of Forestry of the Philippine Islands."
- As a result professional forest management in the Philippines is largely attributed to the ideas and endeavors of American foresters such as Gifford Pinchot, George Ahern and Henry Graves who were instrumental in establishing the Insular Bureau of Forestry in 1900 and in passing the forestry laws of 1904 and 1905. They created new methods of forest management that were a blending of European, American and local expertise, to create novel practices more suited to an administratively and scientifically unstable tropical setting. Management of the Philippine forests as well as the forests in Puerto Rico was based on Brandis' (whom Pinchot and Graves had trained under) experiences and management of colonial or imperial forest reserves in India.

FS Chief Lyle Watts (1943-1952)

- Post-war champion of International Forestry: "Cooperation and technical help in forestry throughout the world became an issue after World War II, and Lyle Watts played a key role in making it viable. The Food and Agriculture Organization of the Uni ted Nations (FAO), dedicated to alleviating world food and shelter problems, was a humanitarian result of the war. Lyle Watts represented the United States on a technical committee which pressed FAO to include international forestry in the scope of its activities. The committee's report, known as the "Third Report to the Governments of the United Nations," was a landmark conservation document. It defined the integral position of forestry in the world's economy. Watts was later appointed chairman of FAO's standing advisory committee on forestry. International forestry consciousness today owes much to Watts for his efforts in its behalf (Watts1).

Chief Watts, 1944 (Truman Library)

- Watts received the Croix du Chevalier de la Merite Agricole from France in 1947 for his work in world forestry. In 1950 he received a USDA Distinguished Service Award for "leadership in advancing the conservation of United

States and world forest resources." These honors evidenced his devotion to world conservation and his effectiveness in its cause (Watts1).

- Mr. Watts was chairman of the standing advisory committee on forestry of the United Nations Food and Agricultural Organization (FAO). He took an active part in the organization and development of the forestry branch of FAO and was technical advisor to the U. S. delegate to general sessions of FAO in Quebec in 1945, Copenhagen in 1946, in Washington, D. C. in 1948 and 1949, and in Rome in 1951. He was also a U. S. delegate to the Inter-American Conference on the Conservation of Renewable Natural Resources in Denver in 1948 and attended the United Nations Scientific Conference on the Conservation and Utilization of Resources at Lake Success in 1949.

Deputy Chiefs, Research/ International Programs

Raymond E. Marsh Deputy Chief Research and Development 1935-1937 Marsh worked with forestry in Sweden, Finland, and Norway. Marsh's work in Europe foreshadowed the important role of Forest Service Research and Development in international forestry.

Edward Kotok Deputy Chief Research and Development 1944-1951
Upon retirement in 1951, Mr. Kotek accepted a position with the Food and Agriculture Organization of the United Nations as head of a Chilean mission on forestry, agriculture, and fisheries, With headquarters in Santiago, Chile. As Deputy Chief of Research, he participated in FAO activities since the beginning of the organization. He was internationally known for his work in forestry with first-hand knowledge of forest conditions in the United States, Canada, Europe and parts of South America.

Les Harper Deputy Chief Research and Development 1951-1966
As Deputy Chief Mr. Harper work on six principal areas for IF: (1) organization of the Forest Service international effort to deal with that activity; (2) participation in the affairs and activities sponsored by the Food and Agriculture Organization of the United Nations (FAO); (3) the world forestry congresses; (4) the International Union of Forestry Research Organizations (IUFRO); (5), the Public Law 480 grant program for forestry research at foreign institutions; (6) the International Union of Societies of Foresters. Work being done in various divisions was gradually brought together in a single unit attached to my office. It was first called *Foreign Forestry Unit* and was headed by Al Cline until his retirement in 1961; it was then changed to *Foreign Forestry Services*, with Robert K. Winters as director. Later it's involvement in international forestry greatly expanded during Mr. Harper's (Mr. Cliff's) tenure.

- V. L. Harper, "The Fifth World Forestry Congress, " American Forests 62 (November 1956): 6- 55. Proceedings of the Fifth World Forestry Congress, 3 vols. (Washington, D.C.: Organizing Committee of the Fifth World Forestry Congress, 1960).

- Tom Gill and Les Harper organized the International Union of Societies of Forestry to help other countries develop professional societies of forestry comparable to the SAF. When I became a deputy chief, I inherited that activity.

Robert K. Winters, Director International Forestry ca. 1955-1967
Winters earned three degrees from the University of Michigan: a Bachelor of Science of Forestry in 1924, a

Master of Science of Forestry in 1925, and a Ph.D. in forestry in 1930. Upon completing his education, Winters embarked on a long career with the Forest Service of the United States Department of Agriculture, ending as Director of the International Forestry Division. Continuing his interest in International Forestry, after his retirement in 1967, Winters continued to serve as international consultant to the Society of American Foresters until 1983.

Winter's career reflected his growing interest in international forestry and his writings reflect his persistent interest in forestry history. As Winter's career unfolded, he filled a variety of positions ranging from Forest Ranger to Regional Director of the Forest Survey, to Director of the International Forestry Division. His positions called on him to fill many roles: liaison between the Forest Service and the War Production Board; researching economic yield and productivity of forests; and training foreign nationals. Winter's service spanned the nation and the world, taking him from New Orleans, to Missoula, to Chittagong, Pakistan, to Washington, D.C. Through it all, Winters saw the importance of sharing knowledge and expertise, hence he devoted much time and energy to international conferences, professional organizations, and education. These interests carried through Winter's retirement, but he also had time to devote to history of forestry. It was at this time Winters researched and wrote The Forest and Man, a history of the world's civilizations and their use of trees.

Keith Arnold Deputy Chief of Research and Development 1969-1973
One other thing that international research did was to improve the relations between countries. When Nixon started with Russia, he authorized cooperative research interchanges, and we were part of that. We had to use our own money; we did not get extra funding. We had three different missions that I know of to Russia. George Jemison took one and John McGuire took one. In 1974, Arnold inherited the International Union of Societies of Forestry work and organized and directed the Second World Congress of Foresters in Finland.

Dick Dickerman Deputy Chief of Research and Development 1973-1975
In 1979, when the United States granted official diplomatic recognition to China, the two governments agreed to exchange ideas, information, scholars, and students in order to promote increased knowledge in the fields of science and technology. Forestry teams from both countries studied breeding and cultivation of improved tree varieties, reforestation, lumber practices, erosion control, and forestry education practices of the other country. After retirement from the Forest Service, Mr. Dickerman led the United States Forestry Team delegation to the People's Republic of China in 1980. During his early career Dick Dickerman had assignments in thirty nations scattered across Asia Southeast Asia, Africa and Europe.

Robert E. Buckman Deputy Chief of Research and Development, 1975-1986
While with the agency, and typical of deputy chiefs for research, Robert Buckman had been much involved with the International Union of Forestry Research Organizations (IUFRO). From 1976 to 1985 he had been a member of its Executive Board and also served as vice president. In 1987 he began a four-year term as IUFRO president; major issues included reworking the administrative structure, especially the secretariat, for a far-flung organization that contained 650 participating institutions from 106 countries. As vice-president and then president of the International Union of Forest Research Organizations, Buckman advocated for international forestry research in developing countries. Priority was also given to creating special programs for the Third World. In order to develop stronger connections with other world forestry organizations, during his tenure many IF staff members were embedded in Europe and elsewhere: a forester was assigned to the FAO headquarters in Rome, a range specialist was posted to Kenya and a research forester was detailed to the Man and the Biosphere Program Headquarters in Paris.

Later, as Deputy Chief of Research and Development and in collaboration with the U.S. Agency for International Development, created the Forestry Support Program (FSP) to deliver developmental assistance in forestry and natural resources to more than 50 countries. USAID asked the Forest Service to be their source of information on forestry schools. That led to the Forestry Support Program, FSP. USAID provided funds for staffing and the Forest Service developed skill rosters and background information that can be called on for forestry programs anywhere in the world. As a result, International Forestry started to grow, and then attracted still other funds and more activities. In 1986, International Forestry grew from six to twenty-five people. By 1991 when

International Forestry achieved separate deputy chief status, there were as many as 45 staff members working in IF.

Jeff Sirmon, Deputy Chief of International Programs, 1991-1995

Jeff M. Sirmon was a notable forestry engineer and the Forest Service's first Deputy Chief of International Forestry. He was born in Franklin, Alabama and received an engineering degree from Auburn University in 1958. He began his career with the Forest Service that same year, and in 1961 he became assistant forest engineer for the National Forests of South Carolina. Sirmon went on to positions as Regional Forester and Deputy Regional Forester in the Intermountain Region, R4 (1974-1982); Regional Forester, Pacific Northwest Region, R6 (1982-85); Deputy Chief Programs and Legislation (1985-1992); and Deputy Chief, International Forestry (1992-1994).

Sirmon was the first deputy chief of international forestry and was instrumental to the U.S. involvement in the 1992 Earth Summit. He also developed agreements between the Forest Service and the governments of Brazil and Indonesia. After 35 years of service, Jeff retired from the USDA Forest Service in April 1994. He went on to become a senior fellow at the Pinchot Institute for Conservation that same year.

Other Forest Service Foresters of note

George Patrick Ahern
A self-educated forester who had worked in forestry in the American West and taught forestry along with military science at the University of Montana, in 1899 Pinchot wrote to Secretary of Agriculture James Wilson, asking that Ahern be made a special agent of the department to inspect and report on the Philippine forests. The military government recognized the need for protecting the forests and of utilizing them for fuel and construction timber. Accordingly, on April 14, 1900, Ahern was put in charge of the forests. He organized and became director of the Philippine Bureau of Forest. In 1910 Ahern founded the Philippine Forest School. Later during a visit to China, he suggested the establishment of a school of Forestry in Nanking. Following an appropriation from the Chinese government a forestry school was established at the University of Nanking.

Dr. Warren Brusch, Forest Service, FPL retired 1945
Dr. Warren was best known for his expertise in foreign wood, including mahogany, teak, balsa, and many others.

Samuel James Record (10 March 1881 – 3 February 1945) was an American botanist who played a prominent role in the study of wood. Born at Crawfordsville, Indiana, Record graduated from Wabash College in 1903 and received a Master of Forestry degree from Yale University in 1905. After working for the US Forest Service, he joined the faculty of the Yale School of Forestry in 1910. In 1917 he became Professor of forest products, and in 1939 was made Dean of the school.

He was so well respected in the field that botanist Moldenke published Recordia, a genus of flowering plants from Bolivia and Brazil, belonging to the family Verbenaceae and named in Samuel J. Record's honor in 1934. Also in the same year, Adolpho Ducke published Recordoxylon, a genus of flowering plants from northern South America in the legume family, Fabaceae.

Through field trips around the Americas (most notably Belize, Guatemala, Honduras, Colombia and of course the US) and help from correspondents all over the world, Samuel Record amassed a collection of some 41,000 identified wood specimens. Originally housed at Yale, the SJR collection was moved in 1969 to the US Forest Service's Forest Products Laboratory, He was a founder of the International Society of Wood Anatomists and began publishing the journal Tropical Woods in 1925 (Wikipedia).

Arthur (Ring) Ringland Forest Service

1903 - 1905 MF Yale School of Forestry
With United States Forest Service, 1905-1917, regional forester in charge Southwestern Region (Arizona and New Mexico), 1908-1916. Captain, adjunct 10th Engineers, later company commander Engineers, 37th Division, France, and Belgium, 1917-1918. Detailed Board of War Damages, American Peace Commission (Paris), 1919, chief of the United States Mission to Czechoslovakia, American Relief Administration, 1919-1921.

Arthur C. Ringland of the Forest Service was assigned the task of answering the charges of An drew Christensen of the General Land Office. Ringland had made a reconnaissance of the Kenai Peninsula in 1916. Here photographed at Albuquerque, New Mexico, in 1912, Ringland was at the time of this writing (1979) the oldest living veteran of the Forest Service. (U.S. Forest Service)

- In charge Russian relief operations, American Relief Administration, Constantinople, 1922-1923. Executive secretary National Conference on Outdoor Recreation, 1925-1929, also member United States Commission on National Park and National Forest Boundaries. European forestry representative Foreign Agricultural Service, United States Department of Agriculture, Berlin, and London, 1930-1933.
- Liaison officer Civilian Conservation Corps, 1933-1934. Chairman Flood Control Committee, United States Department of Agriculture, 1937-1939. Consultant National Defense Advisory Committee and President's War Relief Control Board, 1940-1946. Executive director advising committee on Voluntary Foreign Aid Department of State, since 1946.

Rafael Zon was one of the many foreign immigrants who influenced Forestry in the US. Zon was born in raised in czarist Russia, and later emigrated to the USA where he had a long and colorful career with the Forest Service. One of his many noteworthy accomplishments was advocating a system of research stations in various disciplines, the first of which was established in Flagstaff, Arizona.

On July 1, 1901, Zon entered the U. S. Forest Service as a student assistant assigned to forest investigations. Six years later, he was promoted to Chief of the Office of Silvics (later Forest Investigations). Zon made a persuasive and persistent case for separating research work from forest administration, achieved in 1915 with the establishment of the Branch of Research. Zon's advocacy of research led to his organization of the first Federal Forest Experiment Stations and the Forest Products Laboratory. In order to advance the war effort, Woodrow Wilson appointed Zon to the National Research Council to study forest problems during World War I. In 1923, Zon left Washington, D.C., to accept appointment as director of the Lake States Forest Experiment Station at St. Paul, Minnesota, in 1923. In this position, Zon served with distinction until his retirement in 1944.

During the early twentieth century, first Zon and later with his colleague William N. Sparhawk, reviewed forestry programs and products of a large number of European and Asian countries and published their results as The Forest Resources of the World (1910; 1923).

Used in the 25th Forest Service Celebration - Feb. 1, 1930. SPB

Mr. Zon - Neg. 242770
At 2o and many years later - with pipe - ???
Raphael Zon

FOREST SERVICE

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O - Portraits, D.C.