

CALENDAR

FEBRUARY

18-23: ASEAN Food Conference on "Food Technology for ASEAN," Manila, the Philippines. Contact: The Organizing Committee, ASEAN Food Conference '85 c/o National Institute of Science and Technology, Pedro Gil Street, PO Box 774, Manila, the Philippines

18-Mar 5: Fertilizer Production Training Program, sponsored by the International Fertilizer Development Center. Field trips will be conducted in many Asian cities. Contact: IFDC, Muscle Shoals, AL 35662; telephone (205) 381-6600

18-May 10: Course on "Personnel Management," sponsored by the Royal Institute of Public Administration. Contact: Royal Institute of Public Administration, Overseas Services Unit, Hamilton House, Mabledon Pl., London WC1H 9BD, U.K.

25-26: Meeting of the Board on Science and Technology for International Development (BOSTID) Committee on Research Grants, Washington, DC. Contact: BOSTID, Office of International Affairs, National Research Council, 2101 Constitution Ave. NW, Washington, DC 20418

MARCH

4-15: Seminar on Water Supply and Sanitation, sponsored by the Economic Development Institute (EDI) and the Centro Pan-Americana de Ingenieria Sanitaria, Lima, Peru. Contact: Kias Ringskog, the World Bank,

EDI, 1818 H St. NW, Washington, DC 20433

7: Board for International Food and Agricultural Development (BIFAD) meeting, Washington, DC. Contact: John Rothberg, AID/BIFAD, Room 5318, Washington, DC 20523; telephone (202) 632-0228

10-22: Fertilizer Marketing Training Program for African Region, sponsored by the International Fertilizer Development Center, Nairobi, Kenya. Contact: IFDC, Muscle Shoals, AL 35662; telephone (205) 381-6600

11-29: Seminar on Management Issues in International Health, sponsored by Management Sciences for Health, Kenya. Contact: Elizabeth Dunford, manager of management training, Management Sciences for Health, 165 Allandale Rd., Boston, MA 02130; telephone (617) 524-7799

18-20: National Council for International Health Conference on "The Role of the U.S. Private Sector in Worldwide Child Immunization Programs," sponsored by Salk Institute for Biological Studies, San Diego, CA. Contact: Curtis Swezy, NCIH, 2100 Pennsylvania Ave. NW, Washington, DC 20037; telephone (202) 466-4740

19-20: Implementation of Employment Policies Seminar sponsored by AID/Panama, Panama City, Panama. Contact: Juan Buttari, AID, PPC/PDPR, Washington, DC 20523; telephone (202) 632-1646

20-22: International Development Conference, Washington, DC. Contact: International Development Conference, Room 420, 2001 S St. NW, Washington, DC, 20009

28-31: Second Annual National Preventative Medicine Meeting, "Assessing Risks in a Hazardous World," Atlanta, GA. Contact: Sam Lomauro Associates, 1600 S. Joyce St., Suite A1102, Arlington, VA 22202

31-April 2: International Symposium on the Use of Cultured Fish in Fishery Management, MO. Contact: R. Stickney, Department of Zoology, Southern Illinois University, Carbondale, IL 62901

31-April 3: The Role of Fish Culture in Fisheries Management, MO. Contact: Delano Graff, 450 Robinson La., Bellefont, PA 16823

APRIL

1-5: Seminars on "Health Manpower Planning and Management" and Health Management Information Systems, sponsored by Management Sciences for Health, Kenya. Contact: Elizabeth Dunford, manager of management training, Management Sciences for Health, 165 Allandale Rd., Boston, MA 02130; telephone (617) 524-7799

3-Sept. 27: Apprenticeship in Ecological Horticulture, sponsored by the University of California, Santa Cruz, CA. Contact: Agroecology Program, UC, Santa Cruz, CA 95064

8-26: Seminar on Managing Drug Supply for Primary Health Care, sponsored by Management Sciences for Health, Boston, MA. Contact: Elizabeth Dunford, manager of management training, Management Sciences for Health, 165 Allandale Rd., Boston, MA 02130; telephone (617) 524-7799

Any additions or corrections should be addressed to "Calendar," Front Lines, AID, Washington, DC 20523

FRONT LINES

THE AGENCY FOR
INTERNATIONAL
DEVELOPMENT

FEBRUARY 1985

the front lines of a long twilight struggle for freedom John F. Kennedy

PN-ACZ-515



AID IN MALI

U.S. Responds to Continuing African Crisis

Fiji Victims Get Relief From AID

U.S. Responds to Continuing African Crisis

Administrator McPherson announced an additional 179,900 metric tons of U.S. emergency food aid for Africa, valued at \$59.9 million, in testimony before the Senate Foreign Relations Committee on Jan. 17.

"America's response to the continuing emergency in Africa has been early, quick and massive," McPherson said. "However, several million people in Africa are in mortal danger, and many millions more face a prolonged period without adequate food."

Sudan, with an estimated four million people affected by the drought, will be receiving an additional 100,000 metric tons of food aid valued at \$24 million. Previously, 23,000 metric tons of food (valued at \$11.8 million) was approved for the estimated 500,000 Ethiopian refugees in Sudan.

In addition, the United States has provided \$4.1 million in non-food emergency assistance which brings the total emergency assistance for Sudan (food and non-food) to \$63 million this fiscal year.

McPherson also announced additional emergency food assistance for other African countries: Mali, 13,900 metric tons valued at \$7.3 million; Burkina Faso, 21,300 metric tons valued at \$8.7 million; Niger, 17,900 metric tons valued at \$6.5 million; Mozambique, 3,700 tons valued at \$1.7 million.

"The drought, and accompanying food shortages and famine that have spread throughout the continent, is of historic proportions," McPherson told the committee. "It is, without question, the most serious emergency Africa has faced since independence."

McPherson stressed that more emergency aid was needed and urged the approval of the Administration's request for a supplemental appropriation of \$235 million by early March.

"We need new money this fiscal year for additional emergency food and non-food assistance programs, as well as to replenish the President's Emergency Refugee and Migration Assistance Fund," he said.

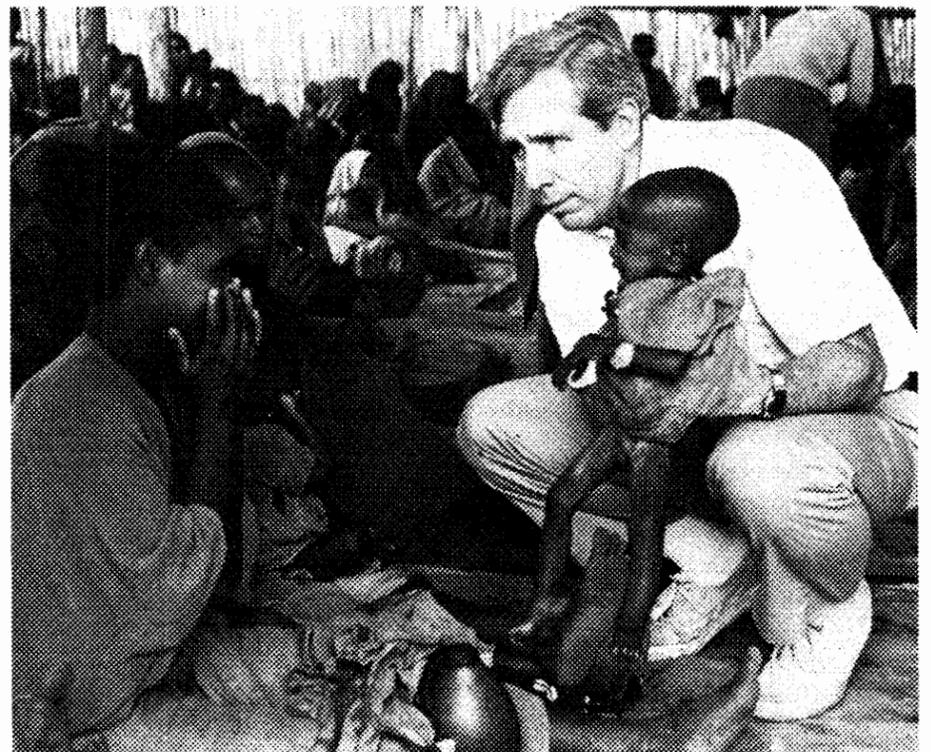
McPherson was joined by Assistant

Secretary of State for African Affairs Chester Crocker and Undersecretary of Agriculture Daniel Amstutz in describing the African situation to the Senate panel.

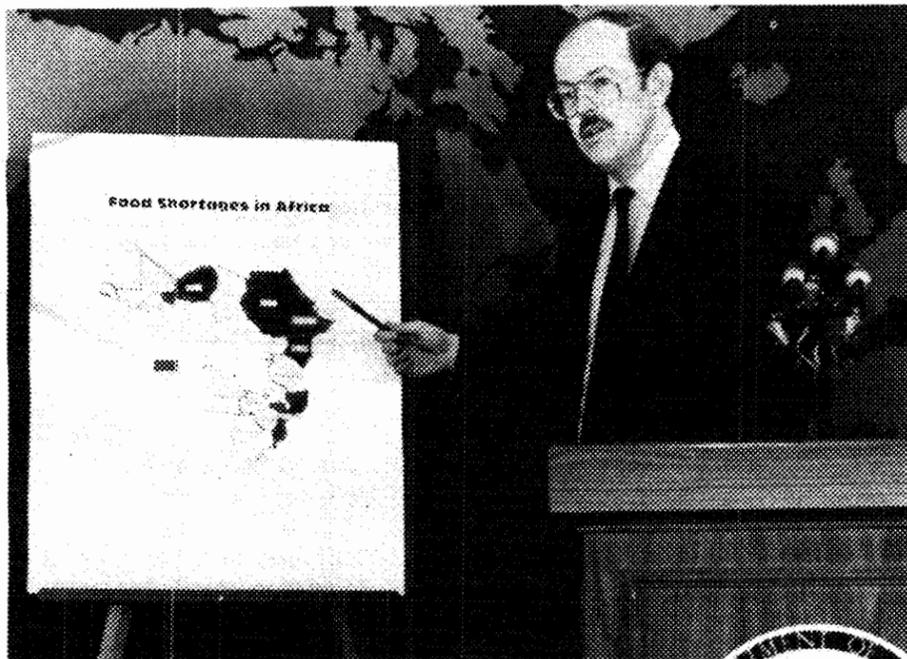
Crocker emphasized that continued

U.S. aid is needed to help 14 million Africans, located throughout 28 countries, who are desperately in need of food, medical care and shelter.

—Lindsey Stokes



Congressman Frank Wolf [R-VA] visits famine victims in Ethiopia.



Administrator McPherson points out that the drought, food shortages and famine that have spread throughout the continent are of historic proportions.

Reagan Proposes Africa Aid Initiative

President Reagan proposed a comprehensive African hunger relief initiative on Jan. 3 that addresses Africa's immediate emergency food needs, its pressing refugee problems and its need to stimulate agricultural development.

The plan calls for an additional \$411 million of food aid for Africa—bringing the total amount of U.S. government food and non-food assistance for Africa to more than \$1 billion. Of this additional aid, Congress would be required to fund \$235 million in a supplemental request while the remaining \$176 million would come from funds already appropriated.

The President also proposed a "Food for Progress" policy, to be presented to Congress this year, that would direct U.S. aid specifically to those nations willing to adopt modern agricultural practices.

"This policy will emphasize use of America's agricultural abundance to support countries which have made commitments to agricultural policy reform during a period of economic hardship," President Reagan said. "We hope that this approach holds the promise to help prevent tragedies like Ethiopia from recurring in future years."

The United States has already spent a total of \$590 million this fiscal year to combat the devastating affects of the African famine—which has spread over two dozen countries. Hunger and extreme malnutrition now threaten over 14 million people in Africa.

Administrator McPherson said the President's proposal would supply 1.5 million tons of food for Africa's starving—about half the amount necessary to meet the needs of the widespread famine. He called upon other countries to supply the other 50% and proposed a conference to discuss a cooperative effort.

"It's a challenge to the world," McPherson said. "We're calling for an international donor conference. We need the world to work together to obtain the balance of the food needed."

McPherson said that the details for the Food for Progress program have not been worked out completely. However, the general aim of the program is to persuade governments that some economic and agricultural policies are not working and need to be changed.

This fiscal year, the United States has committed over 600,000 tons of emergency food worth \$250 million in addition to the regular food aid program of about one million tons.

"America has responded as a government and as a people in a tremendous outpouring of aid. The U.S. response has been far larger and faster than that of any other donor nation or institution," President Reagan said. "Yet, even with all our country has done to feed the starving, more—much more—must be accomplished by our nation in the months ahead to meet this challenge."

—Lindsey Stokes

Fiji Victims Get Relief From AID

Administrator McPherson, who is also President Reagan's special coordinator for international disaster assistance, announced Jan. 24 that AID had airlifted relief supplies to cyclone victims in Fiji in the South Pacific.

On Jan. 17, Cyclone Eric struck the west coast of Fiji's main island of Viti Levu followed by Cyclone Nigel, which hit Jan. 19.

"We airlifted the supplies from AID stockpiles in Guam, right after the cyclones struck Fiji," McPherson said.

Carried aboard three different U.S. military aircraft, the supplies included 1,980 tents, 20 tent repair kits, 240 rolls of plastic sheeting and three 400-gallon water trailers.

"Damage from the twin storms was the worst in Fiji's recorded history," McPherson said. "The storms killed 28 persons and inflicted severe damage to housing, communications, public and commercial buildings, and crops throughout Viti Levu and several outer islands. Approximately 30,000 people are homeless and areas of Viti Levu are expected to be without electricity for at least two weeks. Damage is estimated at approximately \$50 million but is expected to increase."

President Reagan has sent a message to Fiji Prime Minister Mara expressing "deep sorrow at the destruction and suffering your people have endured as a consequence of Cyclones Eric and Nigel." President Reagan assured the Prime Minister that the "American people are concerned with the plight of the people in Fiji and are ready to extend the hand of friendship and support during the days ahead."

Ancient Methods Assist Development

Ecuadorian "campesinos" (farmers) may benefit from a study being conducted by a team of scientists through the Ancient Agricultural Technologies project. The project is a study of ridged and elevated fields or "camellones," a farming method used 1000 B.C. and abandoned at the time of the Spanish Conquest.

Centuries ago, farmers placed rock fill on top of the swampy land to make the flood plain productive. Farmers mined the rocks from nearby hills and continued to add rock fill to keep the village surface and fields above the level of periodic floods. In this way swampy areas were successfully settled for 3,000 years.

The existence of the fields was first noted in modern times by geographer James Parsons when he observed the Guayas flood plain from the window of an airplane as he arrived in Guayaquil in 1964.

"We have been able to show that modern scientific archaeology can make substantial contributions to development."

One of the most complete and ambitious raised field research projects is being carried out by ESPOL's School of Archaeology in Guayaquil with the support of AID's Bureau for Science and Technology. Jorge Marcos, director of the school, says "The principle of the age-old method of native American hydraulic engineering used in raised farming could permit large tracts of tropical flood plains to be used for agriculture most of the year. Presently, low-land areas are flooded during the rainy season and are lost as farming areas.

The thrust of the research is to develop a history of the raised fields, learn methods of construction and determine if abandoned raised ridge systems can be returned to production by campesino agriculture cooperatives.

By making stratigraphic cuts, archaeologists involved in the Ancient Agricultural Technologies project have discovered that the earlier raised fields of the first millennium B.C. were narrower and contained frequent furrows. As time passed, the people of Peñon' del Rio built larger channels which resulted in wider planting platforms. This shift implied technological progress in management and execution of complex hydraulic planning and improvement in tools.

Some time later, channels were dug to join older and simpler systems in a network of waterways that permitted circulation of water with an ability to remove excess water during the rainy seasons. During the dry season these tropical agriculturalists were able to shut the intake from

the main waterway to store water.

The historical research carried out at the Guayaquil archives shows that the campesinos were forced out of these fields by Spanish colonials and were later kept away by "hacienda" owners who used the fields to graze cattle during the rainy season.

Marcos says, "Since the agrarian reform of the 1970's, a good number of lands containing raised fields have been acquired by campesino cooperatives. The use of these ancient systems seems to be one of the most rational and appropriate ways to cultivate the land for people who form a large labor force and have little or no money. The pre-Columbia success story of labor-intensive ridged field agriculture and the excellent results obtained in experimental plots by ESPOL's agronomists point in that direction."

Researchers feel this experiment has produced excellent data on the use of ridged fields and the manner in which plants should be arranged on the actual platform area. Campesinos have given the teachers valuable insight on the proper sequence of planting to deter insects and other pests from destroying interacting crops.

During the wet season there is no problem with root aeration, nor with insects. In the three plantings that have been carried out at the experimental plot, all show bumper crops of corn, manioc and most other plants during the wet months, but during the dry season tilling and mulching become necessary for root crops to develop. Sweet potatoes are planted first to drive out ants from the planting platform before other seedlings are transplanted. Experiments have disclosed that the interspacing of tobacco, marigolds, manioc and other natural pest repellants should be carefully planned. Also, fresh water from the streams flowing from the Andes mountains must be stored for use during the dry season, explains Marcos.

The multidisciplinary team working on the project consists of archaeologists, soil experts, morphologists, hydraulic experts, social anthropologists, agricultural economists, agronomists and agriculture extension specialists.

The research is being conducted by ESPOL's school of archaeology staff and students while the agriculture aspect of the project is supervised by INIAP (the government experimental agricultural institute).

"To those of us in ESPOL's School of Archeology this project has been most rewarding, for it is permitting us to carry out a living experiment on the ways pre-Columbian man was able to undertake a successful and rational exploitation of the environment. Equally important is that we have been able to show that modern scientific archaeology, operating as a social science, is not just the study of the past, but it also can make substantial contributions to development and to the future of modern society," Marcos concludes.

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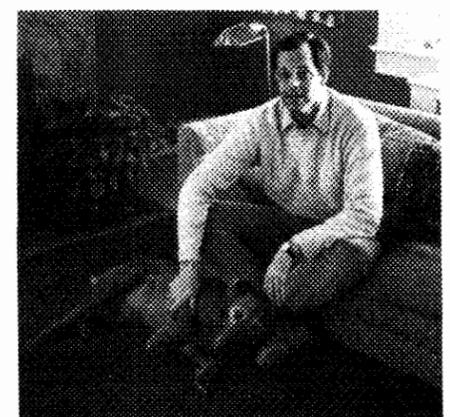
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Photo Credits: Mission of the Month—Bart Kull



Cover Photo: Helping to help people build hope, production and healthy families continues as a principal objective in drought-stricken Mali. Mission of the Month—page 10.

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Judy Wills



Personality Profile—Mark Edelman

Seized Drug Boats Assist in Development

by Lindsey Stokes

When a 95-foot boat was boarded off Cape Hatteras on Aug. 3, 1983, Coast Guard officials found that its deck had been welded shut and overlaid with concrete and tile flooring. Cleverly concealed underneath in the ship's cargo hold were 20 tons of marijuana and illegal drugs.

The members of the drug-smuggling Colombian crew were deported. The first mate and skipper were convicted in U.S. District Court of possession of marijuana at sea and conspiracy to import marijuana.

However, the boat is back in action—now with a crew of doctors and nurses who transport legal drugs to 270 poor villages along the Panama coast. Other floating clinics in the country treat hundreds of people daily, according to Felicito Pinto, an official with Panama's Health Ministry.

Under the Pan American Development Foundation's (PADF) Boats for Development program, boats seized by the U.S. Coast Guard for the violation of laws concerning the traffic of narcotics or illegal drugs, are forfeited to the U.S. government. When boats are turned over to Customs, GSA declares them as surplus and makes them available to U.S. agencies. Boats not chosen by the government agencies are then made available to PADF through a special arrangement with AID.

A non-profit organization of countries and corporations dedicated to stimulating U.S. private sector involvement in Latin America and the Caribbean, PADF acts as a liaison between AID and the Latin nations for this program.

These vessels, as well as privately donated ones, are put to productive use in development projects in Latin America and the Caribbean, according to Darwin Bell, vice president for administration and director of the Tools for Training program. The "rehabilitated" boats provide health care, supply food to the needy, make research possible and are used in vocational training programs, explains Bell.

"The Boats Project is a unique double thrust development effort and has been extremely successful thus far. As many as 20 requests are pending from countries throughout the region. Only through the cooperation of AID's Office of Government Property Resource Division is PADF able to obtain these vessels for institutions which provide valuable training and other services," Bell said.

The boat program began in 1979. The first vessel, Gabriela, was transferred to the Jamaica Cooperative Union in Kingston, Jamaica in early 1980. Since then, PADF has provided 18 boats of all types and sizes to recipient organizations throughout Latin America and the Caribbean.

"The program is not a U.S. giveaway," says Bryan Thornton, PADF

marine consultant. "The recipient country pays 10-15% of the boat's cost and the private sector and AID fund the rest."

"Once in Panama, a ship will be worth 50 times what the Panamanians paid for it. To the people of Panama, it will mean a great deal more."



The program is not a U.S. giveaway. The recipient country pays 10-15% of the boat's cost—the private sector and AID fund the rest.

"Included in the expense are dockage and repair costs. Body maintenance usually is required and an

purchased by Panama's Ministry of Health, will provide free health care. The Panamanian government will cover the annual cost of between \$250,000 and \$500,000.

"The boat was a squalor," Thornton explains. "It was in disastrous condition as far as its mechanical and electrical systems were concerned. As a drug boat, it was operated on a throwaway basis."

After \$60,000 worth of repairs, the freshly painted hulls read "Para Uso Oficial" which means "for official use."

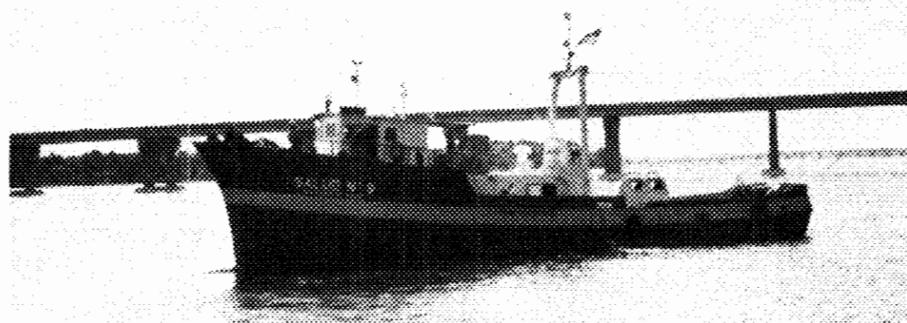
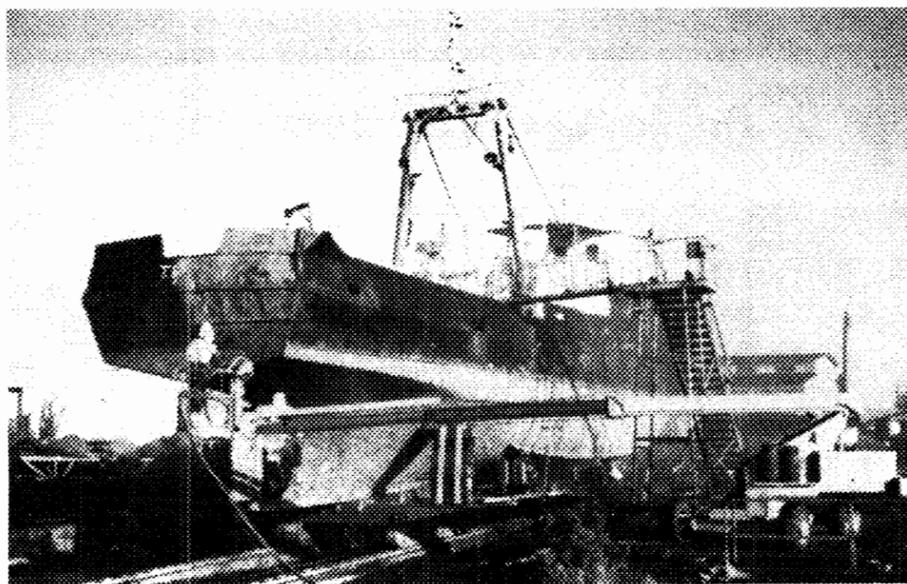
Once in Panama, the ship will be worth 50 times what the Panamanians paid for it, Thornton says. To the people of Panama, it will mean a great deal more.

In the past, if poor villagers became ill, they would have to sell everything in order to afford the costs of transportation and medical attention, according to Pinto. Now, surgery and dentistry will be performed on the new ship, as well as in the villages. Patients also will be transported aboard the ship to and from the country's major hospitals.

PADF welcomes requests from public and private non-profit institutions whose goals and objectives in regional development would be facilitated through acquisition of an appropriate vessel. The recipient institution must contribute funds to cover the surcharge associated with the acquisition from the U.S. government, in addition to PADF's administrative costs and logistical expenses in refitting the boats. The total cost is a fraction of the market value. Potential recipients must demonstrate, in written proposal forms, an ability to maintain and operate the vessel.

For further information contact PADF's Tools for Training program, 1889 F St. N.W., Washington, D.C. 20006 or call (202) 789-3969.

Stokes is assistant editor of Front Lines.



When finished, PADF boats are "given with strings." They must always be used for the purposes intended.

engine overhaul always is necessary," adds Bell.

When finished, whether they are dinghies, sailboats or coastal freighters, PADF boats are "given with strings," says Thornton. "They must always be used for the purpose intended. PADF monitors the boats for one to five years to make sure the recipient country does not break the terms of the agreement."

For example, PADF provided a 48-foot lobster vessel, the "Lutjanus," to the Division of Fisheries of the Belize Ministry of Health, Housing and Cooperatives. Through the collective efforts of AID, PADF, the National Development Foundation of Belize and Dana Marine Services of Florida, the completely reconditioned vessel (valued at \$85,000) will be used in fishing research and maritime training in Belize.

In addition, a 73-foot steel hull cargo vessel was provided to transport supplies and materials for development projects and disaster relief in Haiti.

The R/V Strombus, a 47-foot fiberglass lobster boat now is operating in the Turks and Caicos Islands. Diesel-powered and equipped with radar, the Strombus is capable of long research voyages. Also a confiscated drug-trafficking boat, the Strombus is used for research, education and development projects and for transporting students around the islands.

Another vessel, made available to PADF through AID's Government Property Resources Division and

Lucille Snell and Bonnie Flynn are two Community Liaison Office coordinators (CLOs) who strive to improve and maintain the morale and quality of life for people at their overseas posts through information and referral services, cultural and recreational programs and counseling.

The CLOs are part of the State Department's Family Liaison Office (FLO), created in 1978 to serve the non-official needs of the entire foreign affairs community. The office functions as a resource center and a referral service, providing information to foreign affairs agencies and their families.

FLO has 116 community liaison offices located abroad at major U.S. Embassies and consulates. The CLOs

"The hardships at post can be eased by support, information, fellowship and social activities."

have the challenge of serving all official U.S. government employees and their family members who come under the umbrella of the mission. As Lou Snell, CLO coordinator in Lusaka, Zambia, says, "One of the best things about being a CLO coordinator is that no two days are alike."

The coordinators in charge of liaison offices are well-attuned to the local scene. They have a wealth of information available to the employee and his/her family upon arrival at the post and work with the Washington office to make settling into life abroad as easy as possible.

CLOs Help Maintain Morale at Posts

"The hardships at post can be eased considerably by support, information, fellowship and social activities," says Snell, who is on her third overseas assignment. "From experience, I know some of the problems which confront families at post, including the frustration which results from feeling very insignificant within the overall workings of the bureaucracy."

While each post has different needs depending on its location and makeup of personnel, CLOs have a myriad of responsibilities.

"Families are particularly vulnerable during resettlement in a new culture," explains Snell. "An effective CLO may be able to prevent, or at least minimize, stress on individuals. Consequently, the employee may be more effective in his or her job and the family happier." Snell brings a background in family services and foster care to her job.

Newly assigned personnel and family members are welcomed by the CLOs and provided with updated post-specific information. The CLO coordinator also maintains a library with information on a variety of topics, paperbacks and children's books.

In Liberia, Bonnie Flynn, who was a training coordinator in the Peace Corps, sees herself as a liaison between the mission community and Liberian society as a whole. "As the CLO coordinator I try to make newcomers fully aware of all the activities that are available to them and help them feel comfortable," she says.

"Writing to new people assigned to post, briefing sponsors, welcoming new arrivals, coordinating school enroll-

ment procedures and selecting hospitality items were priority duties for the first few months on the job," adds Snell.

In addition, it is very important for the CLO to establish and maintain personal contacts both within and outside the mission. "There are extensive files in each CLO on community facilities and resources," explains Flynn.

"I get to know so many different people," says Snell. "From the Zambian who comes in off the street wanting to be added to the domestic registry, to the foreign service nationals who work at the Embassy, to the teachers at the school, to the families of the mission community."

The CLO coordinator also promotes dependent employment at the mission and on the local economy. He/she keeps a skills bank of post family members who are seeking employment, maintains contact with potential employers and organizes career planning workshops.

Program development is another area in which the CLO coordinator has primary responsibility. He/she plans seminars, exercise classes, sporting events, tours, social events and holiday parties.

"I try to provide activities at the CLO that are of interest to the community," explains Flynn, who came from a small, rural farm in Iowa where community activities were an integral part of life. "We recently held an art show by several local artists. We've had lectures on cross-cultural adjustment, and we are currently having a photo contest for everyone in the mission." Flynn also conducts a

shopping tour once a month to help newcomers orient themselves and find specific items.

The CLO coordinator is not expected to be a professional in the field of mental health and so will not usually engage in counseling per se. However, he/she is often the first mission employee to hear of a problem and can function as an educated listener.

"I feel that my involvement really has been of help to the people who have brought their problems to me," says Snell, who is a former school teacher with a background in special education. "For example, several people have brought their children's learning problems to my attention. In one case, the family was returning to the United States and was concerned about finding an appropriate learning environment for their child. I went through the resources in the office and presented a list of possible schools as well as persons who could offer educational guidance. In another case, I put together enrichment material for a child's reading problem."

Last, but certainly not least, the CLO coordinator makes sure that family members at post are aware of security issues and are briefed about evacuation procedures. The coordinator must stress the importance of networking and encourage useful ways that individuals can help one another.

CLO coordinators are expected to play many roles at the mission. As Snell says, "Wearing several hats at once can sometimes be a weighty experience."

"My most satisfying experiences have been with newcomers who have never served overseas before," says Flynn. "If I can help someone adjust easily into our community and feel comfortable about being here, then I feel I have done a good job."

—Lindsey Stokes

Rodent Upsurges May Follow Drought

Rapid upsurges in the number of rodents have been reported over the centuries. Though the damage to crops has been extensive throughout the world, biologists only began studying the phenomenon in the 1950s.

Based on the availability of and competition for food, water and shelter, an environment has an optimum rodent population density. Large, sudden increases in any of these variables can lead to irruptions or outbreaks in the rodent population—often to levels higher than the environment can handle.

Beginning in 1962, investigations in Africa and elsewhere pointed to a relationship between irruptions in rodent populations and recovery of an environment from drought. With only one exception, all the studies began after the rodent numbers had peaked. Thus, in 1976, when 43 tropical countries reported rodent outbreaks, researchers had only circumstantial evidence of this association. Alerts to drought-stricken countries of possible outbreaks

could not be scientifically justified.

However, a 1974 study by a French-led research team in drought-stricken Senegal clearly showed a relationship between drought recovery and irruptions in rodent populations. Since then, numerous scientists have pressed for research to show the effect of drought recovery on rodent populations. They are urging developing countries to signal area-specific early-warnings of upsurges in rodent populations.

Specialists from the Denver Wildlife Research Center (DWRC) report that there is insufficient knowledge to predict the probability of rodent outbreaks after a drought is ended. Some researchers believe additional data is required on a variety of factors such as vegetation cover before predictions can be made.

However, the current drought situation affecting 34 African countries was seen as critical enough by AID and DWRC to warrant a rodent outbreak alert in September.

The alert points out the need for baseline research in Africa on how to



Numerous scientists have pressed for research to show the effect of drought recovery on rodent populations.

give advance area-specific warnings, improve surveillance of rodent populations, train personnel and strengthen appropriate institutions.

As a result of the alert, the U.N. Food and Agriculture Organization (FAO) plans to develop a bilingual French-English mobile team to

respond to African rodent outbreaks. In addition, DWRC is working on an AID-funded manual for rodent control.

These actions should help ward off potential threats to crops in drought-affected areas of Africa and set the pace for future efforts.

PERSONALITY FOCUS

Mark Edelman

by Paul Olkhovsky

Mark Edelman likes making decisions. "I'm absolutely convinced that in the government a decision, even a bad one, is better than a non-decision," says the assistant administrator for the Bureau for Africa. "Non-decisions provide no direction and everybody gets aggravated. Things aren't going to change in a month of delay so I say 'choose an option and move on.'"

Edelman is enthusiastic about his job's challenge. He enjoys giving rapid-fire descriptions of AID's largest bureau with more than 39 missions and offices, a staff of about 1,000 and a fiscal-1985 budget of over \$1 billion.

Says Edelman, "The philosophical changes in the direction of development is what makes this job so exciting; the changes are in the right direction." Edelman compares changes that have occurred in the United States with some new initiatives taken by some African governments.

"In America we are not jumping to statist solutions for every problem that presents itself. That is, we no longer assume government has the answer to every question," he explains. "The same thing is happening in Africa. The

In 1968, Edelman worked as a cost analyst for a Washington consulting firm. "I like to deal with things I can get my hands on—that is why I didn't like management consulting. It's too abstract. There is no sense of accomplishment. You just offer an opinion to somebody and they can take it or leave it. There is no follow through and no accountability."

Between 1981 and 1983, Edelman was deputy assistant secretary of state for the Bureau of International Organizations. Edelman also worked a short time as a program analyst for AID in 1981. He returned to the Agency as executive secretary and senior adviser to the Administrator in July 1983.

Edelman was confirmed as assistant administrator in October, but he first became familiar with African affairs when he worked as African budget analyst for the U.S. Information Agency in 1966-67. In the intervening years, Edelman worked for the Office of Management and Budget and as state budget director for Missouri Governor Christopher Bond. He also was a legislative assistant to Sen. John Danforth (R-Mo.) in 1977-81.

"Development in Africa is not like sending a man to the moon; that is a

"My personal experience of battling government on a day-to-day basis convinced me that the government doesn't have answers to all questions."

old statist approach to solving problems is not the way to achieve development. In country after country we are seeing the same thing—governments understanding that you have to free up the private sector because government controls are a disincentive to production. In particular, we are beginning to see less growth of parastatals and more realistic prices for farmers."

One of the greatest recent reforms, according to Edelman, was the Somalia government's decision to cease controlling agricultural products. "The result was a 40% increase in agricultural production last year. I can't think of anything we could have done that would have been more effective in helping all sectors of that society," he notes.

"The assumption that policy reform is necessary is no longer challenged. African leaders don't argue anymore with the need for policy reform—three years ago many did. The donors are also in accord that there needs to be less statism."

Edelman characterizes the African bureau staff who carry out much of the new policy reform as, "people you honestly enjoy being around and talking to. They sparkle. They think. I have never been in a job when I've been surrounded by so many bright people."

technical issue solvable by technical means," explains Edelman. "Development involves sociology and politics. It is not a scientific process. The bureau's large size is a problem. I have more missions, more people and worse development problems than other bureaus. Sometimes, therefore, we aren't as responsive to requests as some of the other bureaus are."

The assistant administrator has little time for indecision. His management style blends decisiveness with pragmatism. If two groups disagree, Edelman suggests that each side should present their side of the case to a higher authority. "No one wins or loses, but everyone keeps on moving. It's much better than to ponder indefinitely," says Edelman.

If the assistant administrator is impatient with indecision, he also has contempt for unnecessary government involvement in everyday life. "My personal experience of battling government definitely influenced my thinking. Dealing with the federal government as a state budget director on a day-to-day basis convinced me that the government doesn't have answers to all questions," says Edelman.

"When I worked for Sen. Danforth, I saw Congress trying to legislate solution to non-problems—to impose a central will. Many times the problems didn't exist or weren't important."



Mark Edelman: "I'm crazy about dogs. Fortunately, my wife is even crazier about them. Rufus is twice the size he's supposed to be."

Much of Edelman's thinking was influenced by studying what he terms as the progressive period (1890s-1920s) at Oberlin College where he received his B.A. in history. According to Edelman, many American opinions and beliefs were formed during those years that remain to this day. "America was changing and growing. With the blossoming of Walter Lippmanns and Teddy Roosevelts, America was at its peak of optimism. F. Scott Fitzgerald's *This Side of Paradise* captures the spirit of that time—the essence of America's positive spirit and disillusionment created by World War I. It was similar to the effect the Vietnam War had on America's mood."

He describes the present as a period when America is rebounding from gloom and pessimism with a more upbeat optimism. "I think the President has done a lot to get America out of its post-Vietnam depression. He hit the American public at the right time with the right philosophy. And, that is why he is well liked," says Edelman.

Edelman says that he and Nancy, his wife of almost 12 years, don't talk about work or politics at home. He finds that refreshing. "Nancy is completely apolitical and has no interest in government. I think it's great, but it does present a problem at 'typical' Washington cocktail parties."

Though government may not attract her, she has a variety of interests. An art historian, she volunteers as a docent at several Washington-area museums. Recently, she worked on an exhibit at B'nai B'rith commemorating the Danish effort to rescue Jews from the Holocaust. Mrs. Edelman also plays the violin in local quartets. Her husband makes a point of listening to her perform whenever he can.

A red, hairy, four-legged addition makes up the rest of the immediate Edelman family. He says, "I'm crazy about dogs. Fortunately, my wife is even crazier about them. I've got an Irish Terrier named Rufus who's twice the size he's supposed to be. He's

bigger than some Airedales."

Once a year, the Edelmanns go gallery-hopping in New York. Edelman's preference for still life painting contrasts with his energetic pace. Through the years, they have bought contemporary sculpture, ceramics, acrylics, prints and drawings. "I happen to have a very bad tendency. What I like most costs the most," he explains with a grin. "For instance the closest thing I can get to a William Bailey is a poster." (Bailey's paintings now sell for about \$50,000.)

It is hard to imagine Edelman living anywhere other than Washington. Growing up in the suburbs of St. Louis, Missouri was not particularly exciting, according to Edelman. He went to college in Ohio, a part of the country he describes as flat and gray, though he enjoyed the intellectual climate of the school. Washington seems to be the only place where Edelman can, "serve in the public sector, even if it is sometimes frustrating, and leave a real legacy."

Edelman smiles when the subject of spare time arises. He doesn't have much of it. When he does find some free moments, Edelman expands his thorough knowledge of American history. He likes to read Americana—American history and political biographies—as well as an occasional spy novel.

Lately, however, the drought in Ethiopia has captured much of his attention. "It's very tough when you have a government there that hasn't done all that it could do," explains Edelman. "Just think for a minute if you work 60 hours a week and during that time all you think and hear about is people dying."

"You don't have the luxury of turning off the television news and having it go away. You don't have the luxury of diverting your mind to something else. How long can you keep that up? I don't have an answer to that. I have to put things in balance. I have my life to lead outside this job. I have other parts of Africa to worry about.

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AID'S IMPACT IN THE FIELD

**Settlement Feasibility
Subject of Report**

by Wendy Belcher

Uncultivated arable land constitutes about 40% of the world's surface—almost all in the subtropics and tropics.

Reports on people moving into uncultivated areas of Brazil, Indonesia, Thailand and Ethiopia make the news. Resettlement continues to interest governments as a solution to over-population, hunger and lack of rural development. Yet, the feasibility of resettlement is a subject of continuing debate in the development community.

Recently, a report was published jointly by the Center for Development Information and Evaluation (CDIE) and Office of Rural and Institutional Development of the Science and Technology Bureau (S&T/RD). It gives a new understanding of resettlement programs from a long-term perspective.

The report is the executive summary of a global state-of-the-art evaluation of new lands settlement in the subtropics and tropics which points out the potential for aiding development through resettlement. It identifies

“The settlers must participate in the building, organizing and decision-making of the settlement.”

stages of development, the ideal settlement process and what makes a successful settlement.

According to the report, 75% of current settlements occur spontaneously; that is, neither sponsored nor encouraged by the country's government. Although the present rate of spontaneous settlement indicates that all the remaining uncultivated arable land will be occupied within the next 15 years, it does not promise that the settlements will be successful.

A major finding of the report was that spontaneous settlement generally is not successful. It may relieve some population pressure, but it rarely results in development. Higher returns can be achieved when governments assist settlers.

Governments exaggerate the capacity of new lands settlement to absorb population surpluses. And yet, while planning expectations are too high regarding returns over the first five years on new land settlement, they are low regarding possible long-term benefits. Governments tend to decide too quickly whether a project is successful or not. Returns have been disappointing, and costs have risen.

Successful settlements are those that stimulate an ongoing process of integrated rural development. To be successful, “the development process must be sustained at least into the second generation,” the report emphasizes. Agriculture does not develop itself. It requires a complex institutional system to support it and to market its products and provide inputs, credit and advice. Without government assistance, this system is unlikely to develop.

The report outlines the four stages that all successful settlements seem to go through:

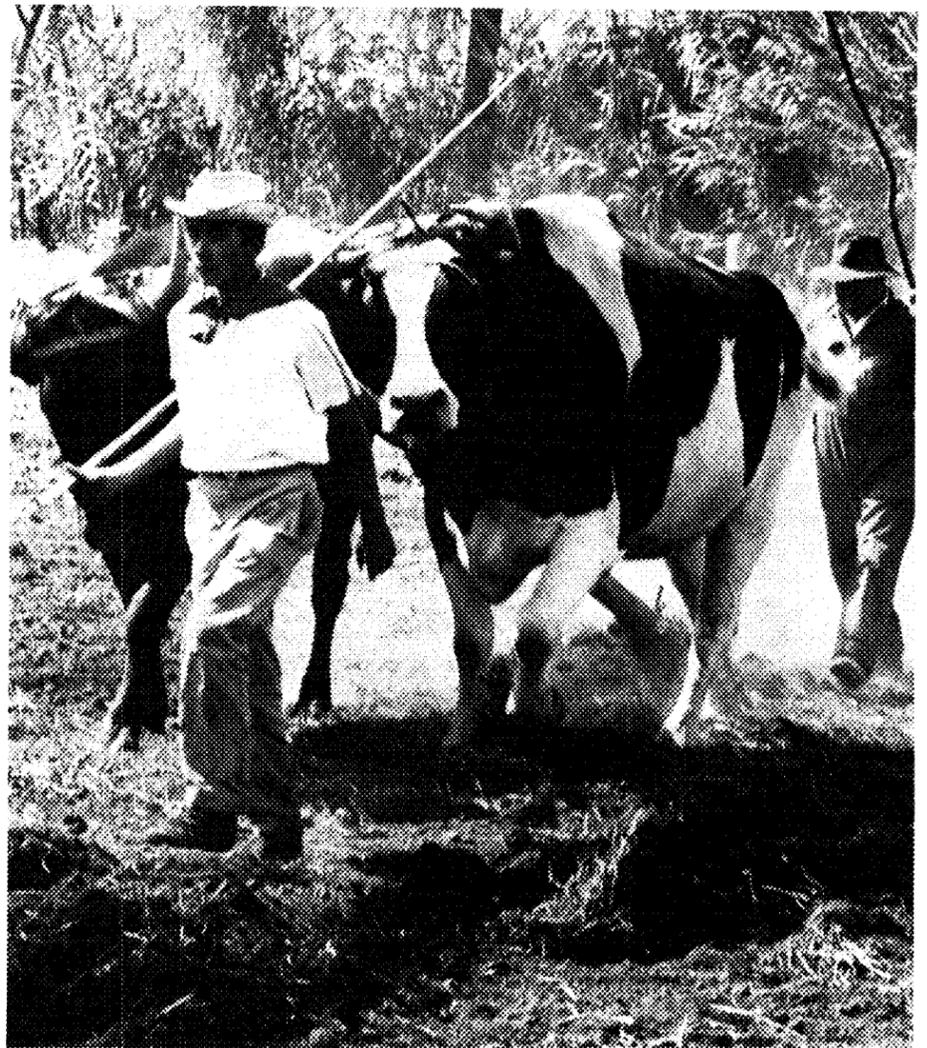
- The planning stage when feasibility studies are conducted, infrastructure is constructed and settlers are recruited.
- The transitional stage, which can be as short as one year or as long as 10 years, in which the settlers are working to feel at home in a new environment. While learning the ropes and barely meeting family food needs, the settlers are cautious about trying new ideas.
- The economic and social development stage in which risk-adverse settlers become risk-takers, farming expands into small business enterprises, farmers hire extra laborers and towns develop. Stage three brings a dramatic change.
- The handing over and incorporation stage occurs when the settlers control their own local institutions, a second generation begins to farm and the new settlement is an integrated part of its region.

A settlement must go through all four stages to be successful.

A model of an ideal settlement is offered as a composite of features common to successful settlements, not as a new prototype to be imposed on every situation. The scope and scale of the intended farming system, the type of settler recruited, the type of land tenure used, the management of the settlements and outside assistance were variables which particularly affected settlement projects.

- *Type of Settler*—The tendency is to focus on the empty land, but the real resource of new lands settlement is the settler. Careful attention must be paid to the mix of people recruited. Settlers should be recruited and interviewed as a family. Young couples and families with grown children are needed. A mix of non-farmer skills also is required in settlements, such as midwives, religious leaders and carpenters. If the settlers are from the same local area and ethnic group, the settlement tends to be more successful. This is also true if the settlers are of the lower class, though not necessarily the poorest people. Education was not found to be an important quality in settlers. A mix of sponsored and spontaneous settlers seems to be most effective.

- *Scope and Scale*—Thousands of settlers are needed, rather than only hundreds. Diversifying the farming systems in the traditional manner of mixing subsistence and cash crops, as



A majority of settlers prefer family cultivation and control of the land.

well as having gardens and livestock, employs everyone in the family and provides more economic opportunities. Nucleated settlements, rather than the homestead pattern, are less costly and easier to support. Plots should be large enough for the women to grow vegetables and livestock and for the expansion of the family unit as children grow up.

- *Land Tenure*—A majority of settlers in the tropics and subtropics prefer family cultivation and control of the land; they like to receive the title to their land. The host people, often an ethnic minority, may have customary rights to land. To avoid political and legal disputes that can last for decades, the rights of all should be protected.

- *Assistance*—New settlers require help in the first year or two. Potable water, roads, elementary schools and limited disease control programs are key needs that the government must provide. Later on, credit, agricultural extension services and storage facilities are helpful. Too much subsidization, however, breeds dependency. The settlers must participate in the building, organizing and decision-making of the settlement. Constructing entire new towns is not necessary; using old towns is sufficient. Housing is best left to the individual settler to build from local materials and according to local custom. Only in the third stage do the existing rural commercial centers need to be enhanced with clinics, banks, post offices, secondary schools and government offices.

- *Outside Assistance*—New lands settlement cannot stimulate a process of integrated area development without major external assistance. The lack of such assistance is the principal reason that widespread spontaneous settlement has not produced real economic development. The primary source of such assistance is government agencies.

If government agencies alone provide assistance, however, they are likely to restrict development. The private sector, local settler participation and private voluntary agencies need to be encouraged to participate in new land settlement.

What makes one settlement grow agriculturally and economically while another stagnates?

The report concludes that government assistance, the right mix of settlers and local control at the appropriate time can result in successful settlements, if economic growth is not suppressed.

This global evaluation was started in 1979 and based on literature from over 100 settlement areas, field studies in four African and Asian countries and site visits to nine countries in Africa, Asia and the Middle East by the author, Thayer Scudder of the Institute for Development Anthropology and the California Institute of Technology. Projects that had been in existence for a generation were chosen for the study.

A copy of the completed report, AID Program Discussion Paper No. 21 (PN-AAL-039), The Development Potential of New Lands Settlement in the Tropics and Sub-Tropics: A Global State-of-the-Art Evaluation with Specific Emphasis on Policy Implications, by Thayer Scudder, may be obtained from the Editor of ARDA, AID Document and Information Handling Facility, 7222 47th Street, Suite 100, Chevy Chase, Md. 20815. The report is a summary of a 406-page book being published by Johns Hopkins University Press. Comments on the report will be welcomed by CDIE, Agency for International Development, Washington, D.C. 20523.

Belcher is under contract with AID for CDIE.

by Emilio Garza

Some Egyptian farmers are finding that cooperation with the AID financed Small Farmer Production project can mean increases in income by as much as 100% and often production increases of as much as 400%. These farmers have become the main spring of a ripple effect that has jarred agricultural credit and extension institutions, modified working methods and inspired researchers in Egypt.

The Small Farmer Production project was implemented when Egypt and the United States signed a \$25 million grant-agreement on July 25, 1979. In February 1980, Agricultural Cooperative Development International (ACDI) was selected to provide technical assistance for the project. It has had a nine-man team of advisers in Egypt since September 1980, according to Bart Harvey, ACDI vice president.

In each of the three governorates served by the project, ACDI has assigned a credit and farm management specialist who work closely with selected village banks in the governorate. In Cairo, there are three specialists: Ron Gollehon is a credit expert and serves as the chief of party, another individual coordinates and arranges all the in-country and overseas

Ripple Effect Jars Agricultural Credit

The project has introduced small scale mechanization, new seeds, new cropping techniques, readily available credit at near-market interest rates tailored to meet the farmers' needs, faster loan processing, increases in delegated authority to the village bank level, improved planning and management techniques and on-farm application of many results from Egyptian agricultural research, Lewis says.

With carefully recorded increases in farmer income based on project-introduced farm records and a repayment rate of over 99% (with no loans considered seriously delinquent), the project is judged a success.

Since the project's beginning, a 10% interest rate was charged which then was more than other PBDAC bank loans. In June 1984, the interest rate was increased to 14% which is close to the going market rate, but there still has been no slow-down in borrowing," says Harvey. The project has demonstrated that farmers do not require subsidized credit to make profits from their farming and are willing to pay higher interest rates

production of new, high value, unregulated crops and farm enterprises.

In addition to increasing yields of traditional crops such as maize, the project has enabled thousands of small farmers to begin commercial production of tomatoes and other vegetables, poultry, eggs and buffalo milk on the basis of farm plans worked out with the extension agents and with bank financing previously unavailable to them.

A Full Circle Service System has been introduced to facilitate farm mechanization. In this system, the project finances the purchase of a machine for a farmer who is then encouraged to rent it and his services to other farmers. These other farmers are, in turn, witnesses to a project-arranged demonstration and are encouraged to use the implement. Hence, the farmer uses the machine on his land, rents it to others, repays his loan with the cash income and provides mechanization service to other farmers. All the farmers benefit as does the country's agricultural output.

To enable farmers to take advantage of mechanization and new/improved technologies, the voluntary joining together of small farmers into "block farming areas" continues to expand. Under this scheme, farmers with adjoining fields agree to farm them together as one large field of the same crop while each maintains ownership of his portion. These areas have increased from 3,424 acres containing 5,008 farmers at the beginning of 1984 to about 15,000 acres containing over 18,000 farmers by year-end. The practice has been providing increased yields and income to the participating farmers.

The project's storage and transportation component is now in the process of constructing 13 village banks and 45 agencies (community warehouses for farm inputs). "The goal," says Noor, "is 25 village banks and 130 agencies. To date, a sum of over LE 8.5 million has been committed to this construction."

The training component has finalized a new operational policy for the Principal Bank's training department

to gain increased authority and responsibility for all training in the farm credit system nationwide.

While the project's very successful one-on-one training in the governorates has continued, it also has sent 67 Egyptians in 1984 on study tours of the U.S. farm credit system and information dissemination services to the farmer via extension, research or cooperative endeavors. In this way, the project has used ACDI's hands-on training in the United States through its member organizations.

"This project has introduced small scale mechanization, new seeds and new cropping techniques."

The Small Farmer Production project provides a strong in-country training program. Bank counterparts receive on-the-job-training on a one-on-one basis by ACDI credit advisers. In addition, the project has a monthly informal training program where counterparts in each governorate are brought together to discuss a single topic such as reporting or making a sound loan.

Extension and bank workers involved in farm management receive the bulk of their training in the off-season. At selected centers in Cairo or the governorates, technical specialists conduct four or five courses at a time. In 1984, 14 courses were taught covering such subjects as management of specific vegetables and field crops, plant protection, livestock and mechanization.

In their efforts to institutionalize the successful policies and procedures used in the project, the Principal Bank, AID and project personnel have begun a series of actions calculated to have beneficial effects on Egypt's farm credit system long after the project is terminated.

Among these are the establishment of a revolving line of credit to the village banks from the governorates. This is in keeping with the desire to create profit centers of each of the nation's 750 village banks. A portion of interest earned has been earmarked

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"In addition to increasing yields on traditional crops, the project has enabled small farmers to begin commercial production."

training, and a third person handles logistics and supplies and supervises the construction of village banks and storage facilities.

The goal of the project is to assist the Principal Bank for Development and Agricultural Credit (PBDAC), to increase the income and productivity of small farmers (those owning or farming less than five acres of land), according to Mahmoud Noor, bank representative. The principal tools for achieving this goal are farm credit, farm management extension, management training, storage and transportation facilities and advice. In the process, ACDI assists the bank in upgrading its operations, Gary Lewis, assistant agricultural officer, Bureau for Near East, explains.

when accompanied by reduced transition costs and farm management advice.

At total of 39,181 loans had been made for LE 32,445,393 (U.S. \$27,037,827) by December 1984. Each loan represented an income-producing enterprise for the farmer that, in most cases, will continue to produce long after the loan is paid.

Farm management technicians, American and Egyptian, continue to introduce crop "packages" of improved seed, cultivation practices and chemicals for a total of 25 crops and six "packages" for livestock production. For the first time under the project, Egyptian credit officers and extension agents have collaborated closely with small farmers to start

Edelman

From page 5, column 4

It's very hard. Sometimes I come home and turn the TV to some junk program to switch my mind into neutral."

Reflecting on Africa's future, Edelman suggests, "You can't be too optimistic about Africa in the next few years. It has horrible problems, all of them interrelated. For example, everyone is aware of the damage the drought is doing in human terms, but we are just beginning to understand what it is doing in economic terms. Crushing debt burdens are rising in astronomical, geometric proportions. Africa has

extremely rapid population growth—the highest in the world. It has the weakest infrastructure and the most varied and fragile soils. Ever-changing climates make agricultural research difficult.

"The United States has been working on development in Africa for a little over a decade, while development has been going on in Latin America since the 1940's and in Asia since the 1950's.

"We're going to have a lot of failures in Africa. Even in the United States about 80% of small businesses fail in the first five years. And, that is given our educational levels and support systems. I'm not going to tell you that

every project I authorize will work. It won't. I'd love it to; we'll do everything that we can to see that projects are successful, but there will be some failures. There are just too many things that we cannot control. For example, sometimes it takes 10-20 years just to develop a hybrid seed. But we must keep plugging away at the problems. We can't quit."

The assistant administrator intends to limit the number of projects in the future. Edelman wants his bureau to concentrate on existing projects rather than to expand AID's portfolio there. "I'm much more concerned about quality than quantity, and that means saying no an awful

lot. I'm going to be talking to the mission directors about what we should be doing and whether the things we are doing are working," he stresses.

Despite his decisive manner, Edelman is unsure about his future. "I haven't got the slightest idea about what I want to do next. I get a bit restless after two or three years at a job. But then I've never had a job as demanding as this one. Don't ask me what I'll be doing several years down the road. I never imagined that I would be doing this when I first came to Washington in 1965!"

Olkovsky is a staff writer for Front Lines.

Students Discover America Hospitable

AID-sponsored foreign students across the United States can enjoy a touch of American homelife each year during the Christmas holidays while learning about their host country.

The international students who take part in the midwinter seminar classes receive a diversified educational, social and cultural experience while enjoying the hospitality of American families, according to Philip Uncapher, director of training, of the National Council for International

"Students get a taste of American hospitality by sharing the holiday season with families near their place of study."

Visitors (NCIV) in Washington, D.C.

The midwinter community seminars, coordinated in 1984 for AID by the NCIV, are offered to foreign students across the country during the Christmas holidays as a break from their intense college schedules. Students learn about American ways and values and are assisted in cross-culture communication.

During the recent seminars, introductions about community self-help, private enterprise, democratic leadership, development problems concerning food, agriculture, business,

labor and government were offered as well as broader issues such as population growth, environmental degradation and disaster and resource management. Students also discussed the activities of federal, state and local governments.

Foreign students, often alone on college campuses during the holidays, have a choice of seminar topics and can participate in various volunteer services where they attend classes. The students take part in specific economic or social development projects, visit city and town council meetings, undertake rehabilitation projects and discuss community planning and other related topics with sponsoring civil organizations, according to the director.

Uncapher said that the 1984 seminars concentrated heavily on substantive themes and issues pertinent to developing countries.

For example, "A New Perspective on International Business and Finance" was the topic of a Chicago seminar. Students studied the development of a major economic center and heard lectures from prominent business and academic leaders. "The Business of Agriculture" was the subject of a Columbia seminar which focused on such subtopics as: the cost of being a farmer, credit factors, government support practices and the small farmer versus agribusiness. In Los Angeles, students could choose between classes entitled "Diversity: A Cross-Cultural Experience" or "Water Where There Was None: Making the Desert Bloom."

Edwin Hullander, AID's associate assistant administrator and director of



The international students who take part in the midwinter seminar classes receive a diversified educational experience.

the Office of Policy Development and Program Review, spoke at the Washington seminar entitled "The Development Process: A Washington Perspective." Hullander spoke to a crowd of mostly African students on overall AID policies toward third world countries. Other AID employees traveled throughout the country to speak at seminars.

As an added highlight, students get a taste of American hospitality by sharing the holiday season with families near their place of study. These visitors spend one or two nights with a local family, providing both the student and the family with a sense of how each lives. Otto Schaler, Office of International Training in

the Bureau of Science and Technology, is AID's project manager for the enrichment programs and feels the "home stay" is the most rewarding part of the seminar.

For 30 years, U.S. communities have sponsored programs for international visitors. Last year 30 seminars were held coast-to-coast with 917 registered participants from 63 countries.

The seminars are open exclusively to English-speaking participants. AID-sponsored students have priority and, if space permits, others may participate.

—Molly Donlon
Special Assistant, Office of Interbureau Affairs and Special Projects

Thai Ingenuity May Solve Fuel Problem

by Jerry Lundquist

With a little ingenuity and a mountain of agricultural waste, a small enterprise on the outskirts of Bangkok, Thailand, may have part of the solution to diminishing forests in many countries.

The brainchild of Sayan Panpinij, the S.P. Energy company, has developed three machines that transform rice husks into burnable "logs," at the rate of four tons a day, 100 tons a month. And it is selling all that it makes.

Rice mills throughout the world produce enormous quantities of rice husks. Thailand alone produces about 3.5 million tons of rice hulls each year. Disposing of this waste is costly for millers and they are glad to get rid of it.

The idea for this process started years ago when Sayan Panpinij and his brother listened to their grandfather's complaints about the difficulty of burning or otherwise getting rid of the rice husks from his mill. But more

recent inspiration came when the brothers visited a sawmill in Kornkan, Thailand, where they watched sawdust converted into fuel logs.

"It has been many years since my grandfather owned a rice mill," Sayan Panpinij recalls. "He always had problems with rice husks. He had no place to keep them. It cost money to move and burn them."

The Panpinij's first rice husk log maker used a combination of heat and pressure to form the logs. Initially, the mechanical power was provided by a gasoline engine, but soon this was replaced by an electric motor which made possible more flexibility in speed control.

One problem was the moisture in the rice husks that turned to steam in the extrusion cylinder. The brothers remedied this by drying the husks first. Then they found that grinding the husks not only reduced the moisture content, but also improved the equipment's performance for a better product.

The first model of the log extruder was a success, but there was still room for improvement. Volunteers in Technical Assistance (VITA), funded in large part by AID, provided a \$2,500 grant to continue its development.

The second and third extruders, constructed in part with assistance from VITA, provided additional improvements. The newest machine produces over 165 pounds of logs an hour from each extrusion head—almost four times the output of the first model. It is smaller, costs less to build, requires less maintenance and uses less power.

The Thailand Institute of Scientific and Technological Research estimates that 80-100 similar machines are used in the country today. But most of them are designed for such products as bagasse or sawdust. One or two factories in Thailand produce the machines.

Many of S.P. Energy's logs are

bought by the Thai Ministry of the Interior, which uses them for fuel at refugee camps—thus saving the trees around the camp. Industries—particularly foundries and crematoriums—also are customers.

The Panpinij's are working on ways to eliminate the smoke produced by their rice husk logs, and predict that consumer demand for the logs will rise as the cost of wood and charcoal increases.

Optimistic about their machine's future, the Panpinij's may benefit from additional VITA assistance to improve the lead turns on the screw and the extruder cylinder. Another problem they will need to deal with is the high parts replacement rate for the extruder.

VITA is looking at ways to transfer and help commercialize the technology in other developing countries with significant amounts of rice husk wastes.

Lundquist is a VITA volunteer.

DEVELOPMENT DIALOGUE

Norman Myers

by Raisa Scriabine

Norman Myers is an international consultant in environment and development based in the United Kingdom. He holds a doctorate in tropical ecology from the University of California where he has served as a Regents lecturer. He is the author of six books including *An Atlas of Planet Management* recently published by Doubleday in New York. Myers has spent 24 years living in tropics, primarily in Africa. He has worked with the World Bank, the United Nations and numerous development agencies. He is the recipient of the 1983 World Wildlife Fund International Gold Medal for his work in international conservation. He recently spoke to *Front Lines*.

Q: How do you see the role of conservation in development, and how can conservationists effectively contribute and participate in this process?

A: They have a critically important message to convey to the development community. Conservationists and environmentalists have gone a long way in formulating their message, but need to be much more articulate in blowing their own trumpet. I once heard it said that environmentalists are acquainted with the flow of energy through ecosystems; they need to become equally acquainted with the flow of influence through the corridors of power. They need to be more capable of talking with development professionals in a mutually understandable language.

In general, conservationists and environmentalists have done a good job of developing programs and planning projects. But the environmental movement has not always been a coherent movement that has steadily generated more and more systematic momentum. The environmental community has not yet developed a consistent, comprehensive, systematized policy framework for what it wants to say and what it wants to see done.

Q: If you were to design this policy framework, what would it be?

A: I would say that we need to look at the entire natural resource base that underpins our lives and to figure out how it contributes to human welfare, to a nation's long-term security, to economic development and to political stability. Conservation has been essentially reactive. The tendency has been for the development community to come up with its policies, programs and projects and then the environmentalists come in with the environmental impact assessment which is an add-on approach. What the conservationists should do, I believe, is to get in there right at the start of the process—that is, to help initiate the policy and planning process themselves.

Q: What should the role of development agencies, such as AID, be to bring the processes of development and conservation together?

A: They are not generally recognizing the value of the environmental message, and much of the blame for that lies with the environmentalists. Environmentalists should put out the message that environmentalism is not something you tack onto other sectors, but it is a legitimate development sector in its own right. Environmentalism generates socio-economic advancement just as much as does agriculture, public health or education.

Q: Can you give some examples of how environmentalism results in economic development?

A: In terms of environmental services, loss of forest cover in the Himalayan foothills causes damage in the Ganges Valley of \$1 billion a year. That is through loss of property washed away in floods and decline in agricultural production—and this is quite apart from human life loss. Restoring forest cover is potentially a major contribution that environmentalists could make to the development scene in India—not just in terms of board feet of timber, but of the many environmental services that forests supply.

Let me give you another example. Genetic resources make extraordinarily

“We may lose one-third of all species on earth by the end of the next century.”

large contributions to our daily welfare, not only in the developed world but also in the developing world. In the field of medicine, for instance, when we go to the neighborhood pharmacist, there is one chance in two that what we've purchased, whether with a prescription or not, owes its origin, in one way or another, to wild plants or animals—analgesics, antibiotics, contraceptive materials, even anti-cancer drugs. This is equally important in the developing world; in fact, it might be even more important because the developing world is not going to be able to afford western-type medicine for a long time to come so it should rely on “green medicine.” I'm delighted to see that certain sectors and development agencies are now trying to “bring the witchdoctor in from the cold,” so to speak, to recognize that these traditional healers do have some really valuable insights and that they can play a role if their practices can be somewhat updated.

Q: Yet, we're also losing species?

A: I would say that we're losing at least one plant species per week out of



Norman Myers: “The concept of biological diversity is no longer a preoccupation of wildlife enthusiasts—it is now becoming part of political agendas.”

about 250,000 flowering plant species on earth.

Q: And, we've examined only a small percentage of them.

A: We enjoy many hundreds of products from the plant kingdom, and yet we've looked at only one species in 10 in cursory fashion and, in intensive fashion, only one in 100.

Q: We may never know the wealth of what we are losing.

A: Right. If in 1984 we've lost 50 plant species, who's to say that among those plant species there wasn't a plant that could produce safer, more effective materials for contraceptives suitable for both men and women, materials that could help against diarrhea or some of the other great killer diseases in the Third World? We've possibly also lost energy sources. We are now finding trees such as certain species of euphorbia in Kenya that can grow a substitute for gasoline. And, “petroleum plantations” wouldn't run dry like oil wells.

Q: What about the contribution of genetic resources to agricultural development?

A: Genetic resources contribute a lot to the agricultural sector. Wild forms of rice produced through their genetic variability, which offer resistance to diseases and greater productivity, have resulted in benefits to rice production in Asia worth well over \$1 billion a year. The greatest contribution of genetic resources to agriculture, however, is going to lie in new agricultural advances. The green revolution has achieved marvels. But, I believe we need a gene revolution; that is, plants that are genetically adapted to produce their own fertilizer, their own pesticides, through a polycultural agriculture, in contrast with the monocultures of the green revolution.

To generate this polycultural agriculture, this gene revolution, we're going to need as much genetic variability as we can find.

Q: A lot of the species that we're talking about grow in the Third World, and many of the problems stem

from policies which tend not to value genetic resources. What do you do to address that problem?

A: The heart of that lies in enabling Third World governments to realize, in a marketplace sense, the commercial value of their wild gene reservoirs. Two-thirds of all species occur in the tropics even though the tropics account for only about one-third of the earth's surface.

To date, virtually all genetic material is traded internationally at nominal prices; that's been the tradition on the grounds that genetic resources are part of the common heritage of all mankind. So no nation should say, “This is ours, and we're going to sell it for top dollar.” There's a lot of value in the common heritage principle, but, at the same time, unless Third World countries can get a better commercial return on their genetic resources, they're going to view those genetic resources as “priceless,” that is worthless.

Q: Many species—particularly animal species—are lost to poachers purely because they bring a hefty market price. How do you tell a poacher who makes a big buck from rhino horn that he would get more economic value by preserving the rhino?

A: You can't! To put it into American terms, this is the equivalent of saying that in Rock Creek Park, a piece of paper is nailed to a tree in the middle of the woods. It says, “The U.S. Treasury promises to pay to the bearer of this piece of paper \$200,000.” And, below that it says “Keep your thieving hands off.” A poacher sees a rhino and recognizes he can earn several years of normal cash income from one horn. It's human nature for the poacher to do what he is doing, especially if his kids are starving. You've got to get rid of the market.

Q: I have the impression that you're not optimistic?

A: Fortunately—and I would like to emphasize this—there is a bit of good news on the horizon. While we look

(continued on page 14)

MISSION OF THE MONTH

AID in Mali

by Bart Kull

Sandwiched between the Sahara desert to the north and the vast tropical forests at its southern borders, the African Republic of Mali is a nation struggling for survival under adverse conditions.

Battered by the long cycle of drought that has left great expanses of the country a wasteland of dried-up pastures and scorched farm land, Mali is among the 10 poorest nations in the world.

The country's population is fairly homogeneous—tribal intermingling was facilitated by easy mobility on the savannas that characterize much of the country. For centuries, separate ethnic groups such as the Bambara, Malinke and Voltaic pursued traditional occupations in proximity to one another.

Although each ethnic group has its own language, most Malians communicate in Bambara. French, however, remains the nation's official tongue and it's common to hear the familiar "ca va?" (how's it going?) greeting in casual encounters.

Mali lies in the heart of Francophone West Africa. When the French began making incursions into the region in the late 19th century, Mali had been the cultural seat to a succession of ancient African empires—such as the Ghana, Malinke and Songhai—empires that controlled Saharan trade and were in touch with Mediterranean and Near Eastern centers of civilization. Mali as a nation takes its name from the Malinke Kingdom which had its origins on



Mission Director David Wilson and his wife Tatsie take a Sunday morning walk through the hills of Bamako.

the upper Niger River in the 11th Century.

Since gaining independence from France in 1960, Mali has searched for a workable formula for the real independence that comes with economic, social and political stability. During that time, the predominately Islamic country has experienced socialist experimentation, a military coup, internal power struggles and the devastating drought cycles shared by its neighboring nations of the Sahel.

It has been a rough road in terms of economic development, and many challenges still lie ahead for Mali.

The African country has few exploitable mineral resources and lacks a well developed agricultural export sector.

About 75% of Mali's population works in agriculture and the drought has affected two-thirds of the land suitable for cultivation. The per capita gross national product (GNP) is only \$190. Life expectancy is 45 years. Illiteracy touches 90% of the population while infant mortality is in a range of 150 per thousand. Up to 80% of the population has little, if any, access to

"Mali has the physical and social potential as well as the political will for economic development"

basic health care services, education, potable water, credit or agricultural services.

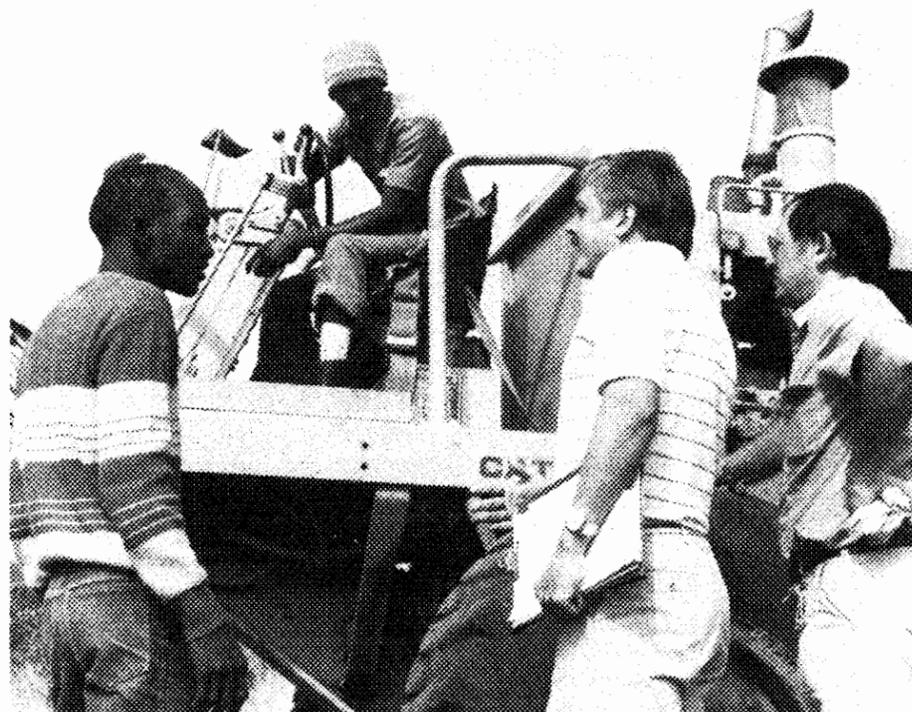
Progress has not been easy nor rapid. AID Mission Director David Wilson says that in the past "the government of Mali and donor nations have been somewhat overly optimistic about the ease with which development could be accomplished." He adds, "We've all gone through a learning process which we now feel has culminated in some very solid projects."

AID development initiatives in this land-locked country of nearly seven million people are focused on agricultural and livestock production improvement and with it, the rise of rural household incomes. Wilson says the Livestock Sector project and the Operation Haute Vallee project are two major efforts aimed specifically at the achievement of these objectives.

Operation Haute Vallee, set in the upper valley of the Niger, is designed to increase dryland farming production of food and cash crops by 200,000 rural people who cultivate land in the 11,000 square mile area surrounding Bamako.

Project Manager Rich Newberg and Credit Specialist Nick Rofe explain that the area was selected "because it's in a relatively stable rainfall area and is a region to which many people are migrating from the more drought-prone areas of central and northern Mali."

"The project," Newberg points out, "was begun in 1979 at a life-of-project cost of \$18 million."



AID Project Manager Rich Newberg (with clipboard) makes an on-site inspection of the farm-to-market road construction near Bamako, Mali.

After a major redesign in 1983 following an evaluation and audit, the project's management has been strengthened and some components have been eliminated. Newberg says, "The project as originally designed just tried to do too many different things at once . . . we were spread

five-year, \$18 million effort to significantly upgrade the small farmer livestock industry in Mali. Livestock provides an important source of national income, nutrition and foreign exchange. Until 1972, livestock was Mali's greatest resource totaling about five million cattle and eight million sheep and goats—among the largest herds in Francophone West Africa. Almost half of the livestock population was lost during the drought, but the numbers are rising significantly again.

Dennis McCarthy, livestock sector project manager, notes "The project includes an improved veterinary diagnostic and research lab and provides village-level para-veterinary training."

The project also provides access to credit with which small farmers can purchase one or two cattle to start a feeding program. The payback rate of

too thin. Now, we're able to focus on improving farm extension services, seed improvement research, adult literacy and post-literacy training in farm and credit management at the village level."

A component of the project will provide 250 miles of farm-to-market crushed rock (laterite) roads to replace a network of narrow, winding dirt paths that become impassable quagmires during the spring and summer rain season. To date, about 150 miles have been completed.

The Operation Haute Vallee project has already had an impact. For example, one group of six brothers and their families within the project area previously had been able to cultivate five to six acres of land with crude hand tools. Today, with the help of a project loan for oxen and basic implements, the same family group is farming 27 acres of millet, five acres of corn and a small plot of peanuts. Even in this drought cycle, they are providing food for themselves and their children with excess production to sell on the open market in Bamako.

They are receiving advice on their farming operations from Malian extension agent Famoussa Soumaoro who obtained his expertise through the AID-funded Agricultural Officers Training project. Approximately 160 agents are graduated yearly from three training schools supported by the project and each agent provides services to about 100 farm families.

The Livestock Sector project has completed its first year of a scheduled



small loans to farmers is now about 95% and climbing.

Credit management is backed-stopped by on-farm training in increased forage production and the utilization of formerly wasted crop residues as animal fodder. In sessions conducted by AID's Richard Provnovost, project financial manager, and Steve Wisecarver, project administrative assistant, Malians receive intensive training in the preparation of financial plans and budget reports. The various training components assure the project's continuity when it is fully transferred to Malian administration and operation.

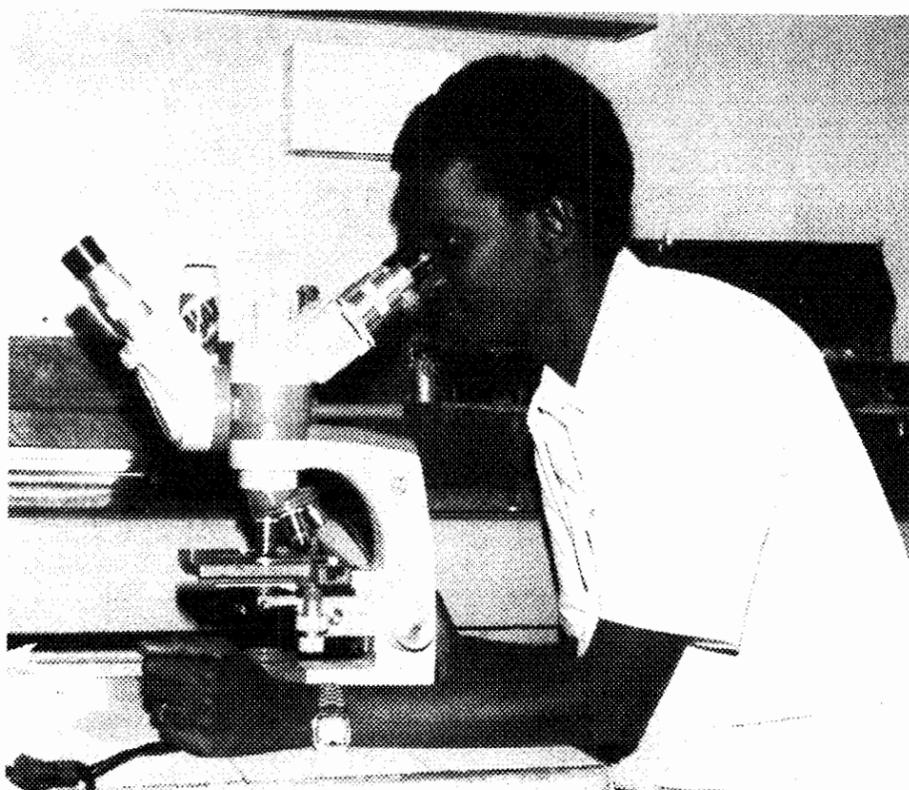
The U.S. Department of Agriculture is working with AID in this development effort.

Over the last two years, the AID mission has allocated the principal part of its budget to support agriculture and livestock sector development. Coupled with this effort, significant strides were made in policy reform to facilitate development.

Wilson explains, "Formerly, farm production prices were kept low and all purchasing was controlled by the central government. Urban consumers were heavily subsidized and that subsidy came out of the hide of the farmer. That's all turned around now. Because of an AID-assisted reform program, farmers are free to sell their goods on the open, free market and urban food subsidies are being phased out. The end result of the reforms will be the full liberalization of grain marketing which will float with the free market."

AID has helped reduce the role of the Malian Agricultural Marketing Office as a market regulator and has expanded the role of the private sector in cereals marketing.

Other efforts also have been made to help revitalize the private sector. Wilson points out, "With help from AID, the World Bank and the support of the International Monetary Fund, the government of Mali has analyzed



Boubacar Seck, assistant director of the Central Veterinary Lab near Bamako, focuses on a bacteria slide. The facility is a vital component of AID's Livestock Sector Project in Mali.

its parastatal sector. It has identified categories of activities that must be maintained by the government to satisfy social requirements; those that can be gradually turned over to private investment or immediately offered to the private sector; and others that should be disbanded completely as inappropriate to the country's needs."

Wilson says the government is working on the means to make these transitions as smooth as possible. For example, "it is discussing plans whereby government employees who are released will have access to credit to invest in alternate activities such as educational retraining or small businesses," he adds. Presently, access to credit for such undertakings is not readily available to other than those who already have a great deal of credit security.

Another undertaking of the AID mission is the Mananatali resettlement project in southwestern Mali. Bob Huddleston, mission general development officer, explains "The land presently occupied by 11,000 people

"There is a genuine spirit of challenge and optimism that accounts for the average 50-month stay of mission staff."

in 45 villages will be flooded by the back-up from a dam to be built on the Bafing River. The dam is a multinational project designed to develop irrigation, navigation and water flow control to benefit agricultural development in Mali, Mauritania and Senegal. The \$900 million dam is being financed by Kuwait, Saudi Arabia, West Germany and several other donor countries."

According to Diane Ponsaik, AID project officer, "AID agreed to provide \$18 million to fund and manage the relocation of those whose land will soon be underwater."

Dennis Bilodeau, AID contract project administrator, adds, "The relocated villagers themselves will do much of the clearing and construction over the coming four years." While AID will fund the work, the people will have a personal investment in the finished product.

The mission staff is optimistic about the future of Mali. "The most immediate need is rainfall. But aside from that," Wilson says, "the natural ambition of the Malian people is very impressive. That has to be turned loose. We see that happening through the private sector—the market place. Given reasonable opportunities to do something productive and make a profit from it, the Malians will work

to benefit themselves and their country. I think the government policies are now turning definitely in that direction."

In spite of the difficulties, substantial evidence exists of a breakthrough into an era of stability and sustained development. Mali has the physical and social potential as well as the political will for economic development. The irrigation possibilities of the Niger and Senegal Rivers stand to improve the productivity of dryland agriculture and to reduce vulnerability to drought. Further, Malians form a cohesive, industrious society with a strong tradition of entrepreneurship—a tradition fully supported by the government of Mali.

"Through its development programs, the United States can assist during this transition by providing some temporary help through advice and assistance, particularly in training people to become more productive and, when necessary, to move from obsolete jobs to new activities to support themselves," adds Wilson.

Despite the often long and challenging work days, AID staffers in Mali find their work rewarding and exciting.

On the one hand, the people of Mali maintain a genuine friendliness toward non-African visitors and residents, and a concern for the needs of one another. On the other hand, there is a close—almost family—relationship among mission people and those of the U.S. Embassy and Peace Corps. Everyone knows everyone and there is a good deal of visiting back and forth between homes after work and on weekends. For example, one of the high points of the year in the AID community is the observance of Frank Sinatra's birthday at the home of David and Taisie Wilson.

Also, the selection of comfortable housing is excellent. Mission and Embassy children attend either a French language school or an American school through eighth grade and then continue their high school education either at West African mission schools or in the United States. For the athletically inclined there is a three-team softball league, jogging, tennis and an American community center with a large pool. And, there are several good restaurants for evenings out. But perhaps most important, there is a genuine spirit of challenge and optimism that accounts in large measure for the average 50-month stay of mission staff.

There also is a spirit of enthusiasm at AID Bamako and it's a spirit that radiates through staff members such as Comptroller George Jenkins who often arrives at the office at 4 a.m. to work up programs on his new micro-computer and Dick Day, deputy project officer, who works long hours planning and managing the mission's drought relief effort in addition to regular programming and budgeting responsibilities.

Although the Marines have a corner on the use of the expression, "Esprit de' corps," it is equally appropriate when applied to the staff and families of the AID mission in Mali.

Kull is the Administrator's speech-writer, Bureau for External Affairs.



In spite of the drought, Operation Haute Vallee and a free market economy are making the difference between subsistence farming and surplus production for this family in southern Mali.

RETIRED

Lucian Bonkowski, COMP/FS, general engineering adviser, after 18 years

Thomas McLarney, COMP/FS, controller, after 18 years

Jack Rosholt, Peru, project management rural development officer, after 5 years

Stephen Thomas, Burma, health development officer, after 13 years

Number of years are AID service only.

MOVED ON

Ann Bridges, M/PM/CSP/B

Linda Brown, S&T/N/OP

Thekla Maria Joyner, M/FM/ESD/CACB

Valerie Manning, RDO/Caribbean

Betty Morris, Nepal

Judith Nehring, COMP/CS/R

Leola Sellers, LEG/CL

Regina Taylor, PRE/P

John Timm, M/TM/CAD/CAF

Donna Vaughn, LAC/DR/EST

Bonita Washington, S&T/AGR/CGIAR

PROMOTED

Delores Armstead, S&T/RD/RD, secretary typist

WHERE? IN THE WORLD ARE AID EMPLOYEES

Cora Bellamy, S&T/POP/R, secretary typist

Lolita Cheeves, XA/AVP, audiovisual production specialist

M. A. Davis, M/FM/PAFD/BPC, clerk typist

Allen Eisenberg, M/SER/CM/RO/NE, contract specialist

Anna Fierro, NE/PD/MENA, secretary typist

Jodie Flakowicz, S&T/MGT, administrative operations assistant

Brenda Gail Frazier, FVA/FFP/PO, clerk typist

Helen Garner, M/PM/CSP/B, personnel staffing specialist

Vivian Howard, M/SER/MO/TTM TS, travel clerk

Marsha Jones, M/FM/CONT, administrative operations assistant

Sallie Mahone, S&T/N, program analyst

Robert Ann Moore, M/SER/IRM WPS, management analyst

Frances Nickolou, ASIA/BI/I, secretary typist

Bernice Ryan, PPC/CDIE, secretary stenographer

Christopher Smith, SAA/S&T, correspondence clerk typist

Laura Smith, M/PM/EPM, clerk typist

Karla Stevens, IG/SEC/PSI, clerk typist

Beverly Stroud, COMP/CS/DS, secretary stenographer

John Swanson, Egypt, project manager, agriculture

Juanita Thorpe, GC/PRE, secretary typist

Brenda Todd, IG/RIG/A/W, clerk typist

Kiertisak Toh, Niger, program economist

Dorothy Toliver, M/PM/PMC, clerk typist

Shirley Truman, LAC/DP, secretary

James Van Den Bos, Tanzania, assistant program officer

Robert Van Horn, Egypt, deputy specialist management officer

Abdul Wahab, Haiti, assistant agri-

cultural development officer

John Frederick Wall Jr., Peru, assistant project development officer

Ronnie Ward, M/PM/TD/AST, employee development clerk

Karen Warder, M/PM/R, clerk typist

Barbara Williams, M/FM/ESD/CACB, accounting technician

Julia Williams, FVA/FFP/I, secretary typist

Sandra Winston, EOP/OD, secretary typist

Sandra Wittig, PRE/PPR/MS, clerk typist

Patricia Ann Zanella, FFP, executive assistant

REASSIGNED

Thomas Ball, deputy director, S&T/IT, to AID representative, Cape Verde

Georgene Howe, executive assistant, Cameroon, to secretary, IG

James Norris, mission director, Bangladesh, to foreign affairs officer, A/AID

Roy Patterson Jr., project manager, COMP, to assistant program officer, LAC/DP/SD

Macalan Thompson, assistant supply management officer, M/SER/COM/NEA, to supply management officer, M/SER/COM/ALI

Leon Vaughn, controller, Pakistan, to executive officer, M/FM/CONT

IMPROVING THE QUALITY OF DEVELOPMENT INFORMATION

A ID managers have diverse information needs. Whether the need is for national statistics on population for project development, data about service delivery for project monitoring, or information on project results for program improvement, in each case AID managers must select the most appropriate methods to obtain the data needed.

The Center for Development Information and Evaluation (CDIE) not only applies development information to improve Agency operations, but also helps AID managers improve the quality and usefulness of the data they need. This is accomplished by developing general guidance on data collection and analysis methods, by providing technical assistance to missions and bureaus and by coordinating the data collection and analysis activities of AID offices, other relevant government agencies and private contractors.

Although increasing decentralization of programming and planning has made timely and accurate development information even more critical, much data collection and analysis remains ineffective and underused.

A recent study of the Agency's use of baseline-follow up surveys, for example, concluded that such surveys were extremely costly, rarely completed and even more rarely used in funding or design decisions. Preliminary findings from an ongoing CDIE study of evaluation methods pointed out that less than 5% of the evaluations used statistical surveys,



CDIE DEVELOPMENT REVIEW

while more than 80% relied on informal document reviews and expert opinions.

A recently disseminated study of "USAID Mission Capacity for Data-Related Activities," by Chris Hermann concluded that data collection should be more closely linked to mission information and decision needs. The study found that a more pragmatic approach to data collection was necessary and that statistical standards should more clearly reflect the resources, capabilities and conditions under which missions and host countries operate. This would represent a more realistic commitment to obtaining the best data possible.

Improving the data-related capabilities of missions would also require a clearer Agency commitment to using appropriate information in decision-making, an overall information policy, appropriate data collection and analysis guidance and adequate technical support. The goal would not merely be to assist missions, but to improve the data collection and analysis capabilities of host countries, themselves.

CDIE's Evaluation Applications and Statistical Analysis (EASA) division provides regional bureaus and missions with technical assistance to design and use data collection and analysis approaches that best meet

their specific information needs within budget, time and host country constraints. Technical support includes assistance in developing alternative baseline-follow up survey designs for a rural road project in Mauritania, designing agricultural information systems in Mali and Niger, assessing information needs in farming systems research in Asia and Africa, assessing the quality of consumer expenditure surveys for Bangladesh and applying analytical software in agricultural analysis in East Africa. This technical support includes both desk studies and field reports, as well as assistance in identifying appropriate sources of follow-up help.

In providing such technical assistance, CDIE/EASA also hopes to identify the major data-related problems that missions face, test solutions to these problems and develop more widely applicable methods of guidance. Work with agricultural information systems, for example, should provide the basis for more general agricultural information guidelines. Also, assistance with the Mauritania rural roads evaluation resulted in general guidelines which outline the major direct and indirect results of rural roads projects, suggest ways these results can be measured and describe three alternative baseline-follow-up survey

designs requiring different levels of resources. The emphasis is on conducting simpler, more expedient surveys that are sufficient to meet the information needs of the project.

Alternative data collection approaches are also the subject of soon to be completed guidelines on "Scopes of Work for Data Collection." These guidelines describe four major data collection alternative methods—representative, intermediate, case-specific and secondary—and examine the basic criteria for choosing among them.

In general, the guidelines recommend that more representative methods should be used when designing large programs or evaluating major pilot projects. They conclude that appropriately designed intermediate and case-specific methods are sufficient for most of AID's project-level data collection and analysis. The guidelines also describe the major components for data collection scopes of work and provide model scopes of work for each of the four alternative methods. The guidelines are now being reviewed and should be available for dissemination shortly.

Other data collection and analysis guidance currently being developed include an assessment of rapid rural appraisal techniques and a detailed review of "structured" (extensive sample survey) and "unstructured" (informal survey and case study) data collection alternatives.

For more information, contact CDIE's Evaluation Applications and Statistical Analysis Division in room 621, SA-14; telephone 235-9183.

Population Office Unveils Allocation Plan

A Resource Allocation Plan (RAP) was unveiled at the second annual coordination meeting of Bureau for Science and Technology/Population officials held in Washington, D.C. in November. It was the first time the Population Office met with all principal cooperating agencies (CAs) grantees and contractors to discuss ways to improve coordination and cooperation of family planning projects between both the CAs/contractors and AID and the CAs/contractors themselves.

Steven Sinding, director of the Office of Population, in making the announcement said that the plan, "is an effort to establish clear and objective criteria for the allocation of central program resources over an extended period of time."

The plan was developed in response to a six-year shift in the allocation of population funds from AID/W to AID/mission programs. It became necessary as funding levels declined, according to Sinding.

The RAP, a 10-month analysis and review of the Population Office program, was done in collaboration with AID regional bureaus and overseas missions. It presents the office's allocations for policy development, demographic data collection and analysis, family planning services, information, education and communication, and training.

"We don't want to leave the impression that this is a rigid plan, locked in place for years to come," Sinding explained. "On the contrary, it is subject to constant revision as circumstances change and our knowledge improves."

The criteria used in establishing funding priorities for countries include: population size and growth,

ability to effectively use population funds, willingness to commit their own resources to population programs, and whether or not there is a program.

The RAP, previously reviewed by the Agency's Population Sector Council, was praised by the CAs. It will be distributed soon to all appropriate AID offices and missions, CAs and contractors.

Three joint task forces set up in 1983 also discussed their findings at the meeting.

It was reported that multiple funding of a grantee organization by CAs stimulates improved project management. The task force cautioned against rigid institutionalized grant conditions or procedures that might discourage developing country grantees from expanding and administering programs.

The second task force reported coordination among the CAs and between the CAs and AID. It stated that criteria for CA and AID project approval should be shared, reviewed as necessary. With this information, CAs and AID missions could assure that criteria are met when project planning and development takes place in the field, relieving AID missions and headquarters of the need for intense review of each project proposal.

Also, the task force said that the Population Office, missions and CAs could be delegated increased project approval authority.

Grantees should be assured of financial support long enough to meet objectives and build technical and managerial skills, but not become wholly reliant on external funding sources, the task force said.

A task force spokesman said "self-sufficiency is conceived as a continuum" though few projects reach full capacity. Most projects, however,

achieve some portion of their goals. The idea is to "move these projects along this continuum without sacrificing quality services."

The task force prepared and distributed four papers discussing the means to achieve self-sufficiency.

Draft proceedings and task force recommendations have been distributed to appropriate Agency

offices for review and comment. The Population Office will send final conference summaries and task force recommendations to all conferees, AID bureaus and technical offices, and all AID population and health officers.

—Drina Shuler
S&T technical information specialist

Ripple Effect

From page 7, column 4

for use in and by the village bank. Managers also have been given budgeting responsibility and spending authority. In addition, a system for delegating authority to the village banks has been made a requirement.

An improved accounting system is ready to be installed in project village banks for initial testing. If successfully completed, it will provide for computerization of the entire farm credit system.

To provide for and fund continued maintenance of project-initiated construction of village banks and warehouses, a separate fund has been established.

Finally, methods have been devised

for quantifiable evaluation of village bank personnel and of the village banks, themselves. These methods will enable banks to judge their performance in comparison with their peers while providing bank management with the ability to evaluate and reward personnel performance.

Based on the success of the SFPP in the three pilot governorates, the PBDAC will expand the SFPP concept to six other governorates using only bank funds.

ACDI's broad base of farmer-owned agribusinesses gives it a ready resource for meeting project needs. All of the credit advisers on the Egypt project have come from the U.S. Farm Credit System.

Garza is a training specialist for ACDI.

Agreement to Assist Sri Lanka

A ID and Sri Lanka recently signed agreements in Colombo that will contribute \$29.4 million to five of the South Asian country's economic development projects.

The agreements (\$10 million in grants and \$19.2 million in loans) will provide \$13.7 million for Mahaweli River basin development, \$6.1 million for water supply and sanitation, \$4.6 million for agricultural research, \$4 million for malaria control, and \$1 million for grants to private and voluntary organizations (PVOs) to increase community participation in economic and social development.

About 50,000 families in the Mahaweli Basin area will benefit from the Mahaweli project, which will irrigate more than 60,000 acres.

The water and sanitation project supports Sri Lanka's long-term plan to provide safe, reliable water and sanitation facilities. AID funds will finance technical assistance, training, commodities, and construction and renovation of buildings and water and sanitation facilities.

The diversified agricultural research project emphasizes subsidiary field crops, especially grain, grain legumes and oil crops. It includes extension and training programs, improvement of seed production, processing and distribution.

This project is expected to help more than 513,000 farm families—approximately 20% of the country's population—through increased employment and income.

Loan funds for the malaria control project will finance purchase of insecticides while grant money will boost research on mosquito control training and information activities.

AID funds for the PVO community participation program will finance small-scale rural development projects, livestock and poultry production, and income-generating activities for rural women.

Joint PVO University Water Project Funded

A ID signed an \$888,000 grant agreement with the Joint Private and Voluntary Organization/University Rural Development Center to coordinate an experimental water harvesting/aquaculture project for villages in developing countries. The signing took place on Jan. 12 at the State Department.

In addition, \$5 million worth of P.L. 480 commodities will be made available for the field program.

The three-year effort will use water harvesting and aquaculture as the centerpiece of local development. The proposal anticipates creation of nine field report projects at 27 sites,

"The grant represents a unique opportunity for AID to foster PVO University Collaboration."

and should benefit an estimated 32,500 people. In addition to increasing food production, it will provide rural villagers with improved access to water through ponds and wells.

The Joint PVO/University Rural Development Center was formed in 1979 to foster collaboration on international economic development

projects between PVOs and universities. Representatives from five major PVOs and five southeastern U.S. universities sit on its governing board.

Besides the members of the Joint PVO/University Rural Development Center, five other organizations are participating in the project: They include: The International Center for Aquaculture at Auburn University, The Center for Women in Development of the Southeast Consortium for International Development, Lutheran World Relief, CARE, Save the Children Federation and Heifer Project International.

The grant represents a unique opportunity for AID to implement recommendations for fostering PVO/university collaboration made by the Advisory Committee on Voluntary Foreign Assistance in 1982.

Universities represented on the Governing Board of the Joint PVO/University Rural Development Center include Western Carolina University, the University of Georgia, North Carolina A&T University, Virginia Polytechnic Institute and State University, and Appalachian State University.

PVOs with governing board status include Lutheran World Relief, CARE, Catholic Relief Services, the Christian Children's Fund, and the Tolstoy Foundation.

Obituaries of Retirees Will Be Published

Effective in the March issue, Front Lines will print notices of deaths of retirees.

Friends or relatives should send the following information—name, age, cause of death, last position held at AID, number of years of service and an address to which condolences may be sent—to the Editor, *Front Lines*, AID room 4889, Washington, D.C. 20523. It is requested that all information be typed or printed clearly.

Because it is important that information included in Front Lines be as current as possible, only notices of deaths occurring within one month of publication will be printed.

Donations From Agency Top CFC Goal

AID employees contributed more than \$245,000 to the 1985 Combined Federal Campaign (CFC), exceeding both this year's \$198,000 goal and last year's record \$193,749 total, announced Administrator McPherson at the CFC award ceremony on Jan. 29.

"Employee participation was 55%—6% better than last year," explained Tom Rollis, vice chairman of the AID campaign. "That's particularly gratifying, because one of our aims this year was to broaden the base of employee support for this annual humanitarian effort.

"The American Federation of Government Employees and the American Foreign Service Association both made commitments to support the campaign, and I believe their efforts contributed to the Agency's splendid showing. Our retirees also were very generous. AID's people have once again set an example of volunteerism and concern at its best."

(List of Awards on page 15)

AID BRIEFS

Task Force Heads to Zaire

A 15-member agricultural task force, appointed by President Reagan and headed by Tuskegee Institute President Benjamin F. Payton, traveled to Zaire Jan. 25 to spend two weeks studying ways to help that African country strengthen its agricultural production and marketing.

Administrator McPherson pointed out, "The task force will look into how to help Zaire increase employment-generating enterprises in agriculture."

AID's Science and Technology and Africa Bureaus have recommended that the task force concentrate on policy questions and production incentives, financial support of agriculture, research, manpower and training, and private investment.

This and other presidential agricultural task forces were created by AID at the direction of the President following the North-South Summit talks at Cancun, Mexico in October

1981. President Reagan offered to send such groups, composed of prominent businessmen and women and scientists to countries requesting them.

Afghanistan Reunion Set

A reunion dinner of Americans who have served in Afghanistan is planned for April 19 at Fort McNair, Washington, D.C.

Complete details will be mailed when they have been finalized; however, in order to bring records up-to-date, if you have changed your mailing address within the past five years, please send the new address to: Sadie Goodman, 2500 Wisconsin Avenue, N.W., Apt. 501, Washington, D.C. 20007.

Kammerer Among Top SES

At a recent White House ceremony, Kelly Kammerer, director, Office of Legislative Affairs, was among 19 Senior Executive Service career employees government-wide to receive the Presidential Rank Award of Distinguished Executive.

Presented annually to no more than 1% of the SES career members, the award recognizes prolonged, high quality accomplishment over a minimum period of at least three years. The award included a cash payment of \$20,000.

Kammerer's award nomination stressed his leadership, integrity and ability in a series of increasingly important Agency positions.

He was first appointed acting director of Legislative Affairs in the summer of 1982 and has been serving

officially in that position since January 1983. Kammerer has been responsible for directing the Agency's congressional relations during a period of major foreign assistance initiatives affecting such areas as Central America, the Caribbean, Africa and private sector programs.

Prior to his LEG assignment, Kammerer was senior deputy general counsel and legal counselor to the Administrator. He also served as assistant general counsel for legislation and policy. Before joining AID, he was deputy general counsel of the Peace Corps and a litigation specialist in federal courts as a Reginald Heber Smith Fellow.

Kammerer was graduated from Notre Dame and received his law degree from the University of Virginia.

Case Studies Can Win Cash

The Farming Systems Support project at the University of Florida and the Population Council are requesting case studies on "Intra-Household Dynamics and Farming Systems Projects."

Material should document cases where specific attention to inter- and intra-household questions has improved the effectiveness of farming systems projects in diagnosing constraints to agricultural production, designing ways of alleviating these constraints, testing appropriate new technology on farmers' fields and publicizing beneficial recommendations.

Awards of up to \$3,000 will be made for preparing the case studies and expenses also will be paid for case writers to attend a training workshop in early June.

Applications are encouraged from individuals or project teams interested in preparing case studies or from project teams who wish to nominate themselves to work with a case writer supplied by the project. For more information and application forms, contact: Hilary Feldstein, managing editor, Intra-Household Dynamics and Farming Systems Case Studies Project, RFD 1 Box 821, Hancock, NH 03449, telephone (603) 525-3772.

Hastings Dies From Cancer

James J. Hastings, regional inspector general, Cairo, died Jan. 17 of cancer. He was 53.

Hastings joined the Agency in 1962 as an accountant. He also served as an auditor before being named regional inspector general in 1980. He had served in Bolivia, Argentina, Chile, Vietnam, Tunisia, Morocco, Honduras, Turkey and Panama before his assignment in Egypt.

He is survived by his wife, one daughter and one son. Condolences may be sent to his family at 5480 Wisconsin Ave., Chevy Chase, Md. 20815.

Myers

From page 9, column 4

as if we may lose one-third of all species on earth by the end of the next century, there are now one or two signs of hope, and I would like to wave a flag for the initiatives of the United States, at least for certain segments of the federal government. The State Department and AID called a biological diversity strategy conference in 1981, and last year Congress passed the International Environment Protection Act. The concept of biological diversity is now much more commonly heard in the corridors of State and among AID personnel and the development community, and it's actually being enshrined in legislation.

Now, of course, there's a long way between what goes on in Washington and what happens on the ground in

Timbuktu. But it is a start, and it's a very big step forward. The concept of genetic diversity is no longer a pre-occupation of only wildlife enthusiasts. It is now becoming established on political agendas, and I believe that it is due in part to the leadership role of certain segments of the U.S. government. It is also attracting a lot of attention in OECD and the European Economic Community. Quite a number of developed world aid programs are enshrining this concept of biological diversity.

Q: From your experience in the conservation field, what is your environmental priority agenda for today and how would you chart a course for tomorrow?

A: If I were to come up with a shopping list of environmental priorities for the entire world, I would say that the matter of species extinction

and genetic impoverishment should come at the top of the list because, when a species is gone, it's gone for good. And, that is quite often going to be bad—for us, for our children and for all generations into the future because it's an irreversible process. Almost all other environmental problems, like loss of soil, pollution, spread of toxic materials, spread of deserts, are intrinsically reversible. It might cost us a great deal, and it might take quite a lot of time—decades, even centuries—but we could halt the process and throw it into reverse gear. However, extinction of species is a different ballgame.

To get on top of the species extinction problem, we need to expand the number of protected areas or "gene parks" several times over. The cost of setting up protected areas is likely to be between \$1-2 billion a year from now to the end of the

century. In a time when we want to cut back on public spending, it's very difficult to start talking about extra expenditures. But if you look at the cost-benefit returns on that investment, it's one of the best investments we could possibly make for the future. So it's not a question of can we afford to pay it; it's really a question of can we afford not to?

When our grandchildren look back upon us, they'll see us either as pygmies in the course of human history if we allow millions of species to disappear, or they will view us as giants of the human condition because we rose above the day-to-day problems, recognized these large scope perspectives and came to grips with them.

Scriabine, director of publications, Bureau for External Affairs, conducted the interview with Myers.



To honor the Agency's voluntary efforts of donating to the 1985 Combined Federal Campaign (CFC), certificates were presented to

CFC coordinators and plaques were given to bureaus and offices that reached or exceeded campaign goals. Administrator McPherson, vice president of the government-wide CFC campaign, and Tom Rollis, vice president of the AID campaign, made the presentations at a ceremony held in the Administrator's reception area on Jan. 29.

The **President's Award** was presented to the following coordinators for offices in which total contributions averaged \$75 per employee:

- Bureau for Africa, Carolyn McGraw; Bureau for Asia, Dean Alter; Bureau for Food for Peace and Voluntary Assistance, Barbara Blackwell; Bureau for Latin America and the Caribbean, Marsha Bernbaum; Bureau for Private Enterprise, David Grossman; Bureau for Program and Policy Coordination, Mary Power; Office of Equal Opportunity, Ivan Ashley; Office of Legislative Affairs, Bette Cook; Office of Personnel Management, William Granger; Office of General Counsel, Lyn Willholte; Office of Foreign Disaster Assistance,

Frances Vaneck; Office of Small and Disadvantaged Business, James Bednar; and BIFAD Support Staff, Marie Barnwell.

The **Honor Award** went to offices with total contributions averaging \$50 or more per employee and at least 75% participation. The offices and their coordinators are:

- Bureau for External Affairs, Kellan Quinlan; Office of Administrator/Executive Secretary, Diana Lopez; Office of Inspector General, Joy Lyles; AID/Morocco, James Smith, Jr.; and AID/Senegal, Christine Montgomery.

The **Merit Award** was presented to offices with total contributions averaging \$30 or more per employee and at least 65% participation. The offices and their coordinators are:

- Office of Trade and Development Programs, Roger Leonard; Bureau for Near East, Charles Shorter; AID/Dominican Republic, Philip Schwab; AID/Panama, Carmen Garcia; AID/Tunisia, Paul Novick; AID/Ecuador, Neal Meriweather; AID/Malawi, John Lee; AID/Sudan, Dulene Hamilton; AID/Guinea-Bissau, Grace Mayberry; AID/Rwanda, Eugene Chiavoroli; AID/Sri Lanka, Richard Chamberlain; AID/Ghana, Leroy Wagner; and AID/RFMC (Kenya), John Martin.

Special Services Awards were presented to the following outstanding individual campaign leaders and smaller employee groups:

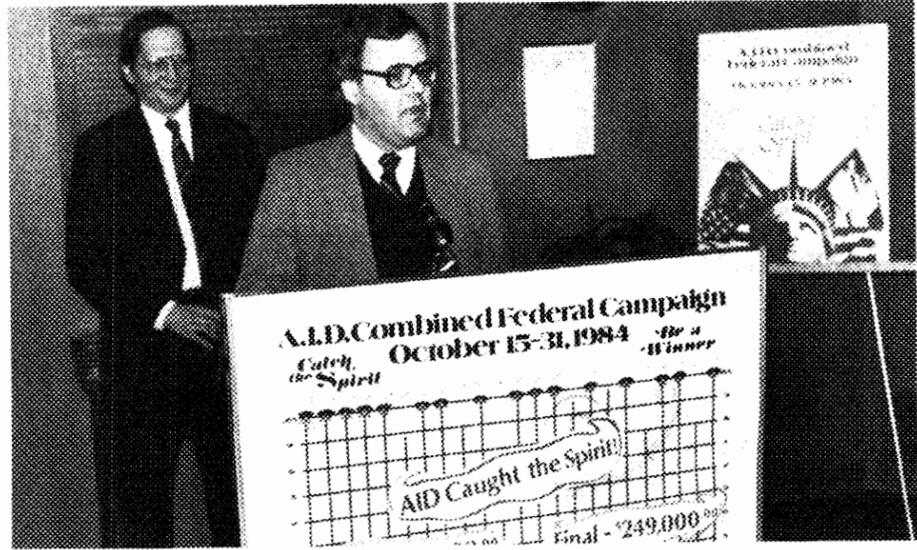
- AID/Washington—Diana Lopez, Mary Power, Anne Walsh, William Granger, Bob Clark, David Johnson, Barbara Blackwell, David Grossman, Carolyn McGraw, Dean Alter, Marcia Bernbaum, Charles Shorter, Kellan Quinlan, Bette Cook, Lyn Willhoite, Joy Lyles, Ivan Ashley, James Bednar, Frances Vaneck, Marie Barnwell and Roger Leonard.

- Latin America and the Caribbean—Paul Fritz, Philip Schwab, Carol Huger, Teresita de Avila, Carmen Garcia, Kimberly Finan, RDO/Caribbean and RIG/A/C.

- Near East—Anne Dahlstedt, James Smith and Paul Novick.

- Asia—Betty Morris, Robert Chamberlain, Owen Cylke, Mildred Taylor, John Anania, Frederick Schieck, Charles Ward, Lovie Davis and ADO/S Pacific.

- Africa—John Lee, Gary



Tom Rollis (left), vice chairman of the AID campaign, and Paul Mickey, a loaned executive from AID to CFC, congratulate the coordinators for their winning efforts.

Mansavage, Robert Bourquin, Leroy Wagner, Loring Waggoner, Durlene Hamilton, Grace Mayberry, Michael Trott, Mark Anderson, Eugene Chiavoroli, John Martin, Emerson Melaven and Christine Montgomery.

Other offices—Rome (FAO), Naples, Paris, Geneva and RIG/Karachi.

Certificates recognizing units which met **100% of Goal** or exceeded it were presented to:

- AID/Washington—Bureau for Africa, Bureau for Asia, Bureau for Food for Peace and Voluntary Assistance, Bureau for Latin America and the Caribbean, Bureau for Private Enterprise, Bureau for Program and Policy Coordination, Bureau for Science and Technology, Bureau for External Affairs, Office of Personnel Management, Office of the General Counsel, Office of Equal Opportunity Programs, Office of Legislative Affairs and Office of Small and Disadvantaged Business.

- Latin America and the Caribbean—AID/Belize, AID/Bolivia, AID/Dominican Republic, AID/El Salvador, AID/Guatemala, AID/Panama and RDO/Caribbean.

- Near East—AID/Cairo, AID/Morocco and AID/Tunisia.

- Asia—AID/Nepal, AID/India, AID/Bangladesh, AID/Sri Lanka, AID/Burma, AID/Philippines and AID/Thailand.

- Africa—AID/Malawi, AID/Kenya, AID/RFMC (Kenya), AID/Uganda, AID/Ghana, AID/Swaziland,

- AID/Somalia, AID/Sudan, AID/Guinea-Bissau, AID/Liberia, AID/Rwanda, AID/Mali, AID/Zaire, AID/Burkina Faso and AID/Senegal.

Rollis also presented **Recognition Certificates** to those who contributed time and talent to the campaign. Recipients were:

- Mary Valentino, Betty Scheer, Maggie Boyajian, Laurence Chandler, Marge Nannes and Leonard Cohen.

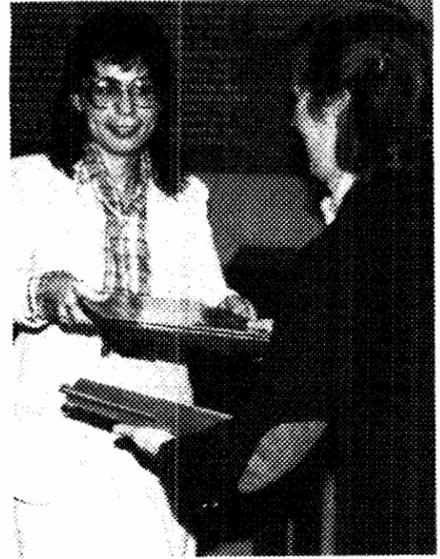
SES EARN PERFORMANCE PAY

Recently, 12 members of AID's Career Senior Executive Service were awarded performance pay for high level accomplishments during the 1983-84 performance rating period.

SES Performance Award Recipients included Marshall Brown, Curtis Christensen, Peter Kimm, Bradshaw Langmaid, Charles McMakin, W. Wayne McKeel, John Mullen, John Owens, John Robins, R. T. Rollis, Jr., Paul Spishak and Ruth Zagorin.

The Agency's International Development Intern Program has been temporarily canceled for budgetary reasons. Resumes and applications received will be retained for review when IDI classes are rescheduled.

—Marge Nannes



Kellan Quinlan receives CFC plaques for the Bureau of External Affairs from Maggie Boyajian, employee relations assistant.



Africa Bureau officials recently attended Consultative Group proceedings for Madagascar, Senegal and Ghana and reported that each

of the countries had made progress in restoring financial stability and must now address structural reforms.

Consultative Group proceedings bring together bilateral and multilateral donors and country representatives to review overall country economic performance, assess external resources and examine policy reforms that may be required for future years. The World Bank chairs these sessions.

During the meetings, it was reported that agricultural price in-

creases in rice and the liberalization of marketing in Madagascar have led to a substantial reduction of rice imports. In the industrial sector, the government has eliminated price controls on products accounting for 35% of manufacturing value added.

Representatives agreed that there should be a reduction in the proposed public investment program to free resources for the private sector.

Despite vigorous measures to stabilize the economy and the initiation of structural reforms, Madagascar will face a critical balance of payments problem during the next three or four years and will require increasing support from the donor community.

Philip Birnbaum, bureau deputy assistant administrator (ESA), headed the U.S. delegation at the Madagascar meeting.

The Senegal government reported on its economic situation and outlined a medium and long-term economic and financial adjustment program. The objective of the plan is to stabilize the economy over the next six years in an effort to encourage long-term economic growth. The program calls for a series of structural and policy changes relating to public finance, balance-of-payment initiatives, agriculture, industry and reform of public enterprises.

The U.S. position, echoed by other donors, was one of continued support if Senegal moved in a purposeful and disciplined way to enact reforms. The donor countries have been encouraged by Senegal's efforts, so far, to stabilize its economy.

Jay Johnson, deputy assistant administrator for Africa, and Dennis

Chandler, director of the Office of Sahel and West Africa Affairs, attended the meeting for Senegal.

The performance of the Ghana government in the last two years also was considered impressive by attendees. Ghana has successfully devalued its currency 1400% over the last 18 months and has liberalized marketing of agricultural products. As a result, farmers are being paid higher prices for their products. The investment in rehabilitating the transportation sector is continuing and is expected to have a positive effect on agriculture marketing and input delivery.

Jay Johnson and Julius Coles, director of the Office of Coastal West Africa Affairs, attended the Ghana meeting.

—Michele Easton



Until recently the development of much of the Dominican Republic's rich agricultural and general economic potential had been hampered by the poor condition of its approximately 5,500 kilometers of paved primary roads and 12,000 kilometers of rural feeder roads.

A highly centralized government, difficult terrain and adverse climate resulted in a cycle of construction, deterioration due to lack of maintenance and then expensive rehabilitation of the same road. Consequently, public transportation was erratic or nonexistent. Under this system, which included essentially no maintenance, a major rehabilitation of rural roads was carried out every three to five years at about 17,500 pesos per kilometer (approximately \$5,833 U.S.).

In order to remedy this situation, AID designed the Rural Roads Rehabilitation and Maintenance project to develop the government's General Department for Rural Roads' (DGCV) ability to rehabilitate and maintain rural roads at the national, regional and local community levels. The DGCV entered this project with a flexible, analytical approach to provide services to rural areas. Rural roads in need of rehabilitation were ranked using cost-benefit analysis and repaired according to these criteria. This new openness to policy alternatives then permitted the further shift in policy to private sector contracts for rehabilitation of rural roads.

Seven regional centers were constructed, staffs of approximately 20 full-time employees were trained and equipment for road rehabilitation

and maintenance was purchased. Regional centers now carry out rehabilitation of rural roads, as well as a bi-annual inspection of road conditions by crews with heavy equipment.

Locally, 700 community organizations provide the backbone of the maintenance system by being responsible for the day-to-day maintenance of the rural roads. Most of these groups are either farmer cooperatives, village committees or ad hoc work exchange groups. Each committee selects an individual for approximately every five kilometers of road. That person becomes a full-time employee of DGCV. Both the individual workers and the committee are given several days of training in maintenance and issued hand tools. In addition to the daily maintenance, the bi-annual inspection crew carries out the necessary grading, shaping and compacting. The crew also delivers such material as gravel or culvert pipe, if needed. With local volunteers performing the hand labor, about three kilometers of road can be completed per day.

This system heightens the community's awareness of the value of the rural road and makes greater use of the unskilled and semi-skilled labor, which is almost always in surplus in rural Dominican Republic.

During the final stages of the design of this project, the Dominican Republic was struck by a devastating hurricane which increased still further the need for rehabilitation of the rural roads. A \$5 million grant was added to the \$10 million loan and private sector contractors were hired to supplement the rehabilitation of rural roads by the DGCV.

Subsequent analysis of the costs and timeliness of rehabilitation work, as well as the quality of the rehabilitation, showed that the private sector generally provided a better service at



During the final stages of the design of this project, the Dominican Republic was struck by a devastating hurricane which increased the need for rehabilitation of rural roads.

a lower price in less time than could the DGCV. As a result, all rural road rehabilitation is now contracted to the private sector. This leaves the DGCV to concentrate on maintenance and thus establishes a new policy for the Dominican Republic government.

The project has brought about a major re-evaluation of policy and restructuring of the DGCV and resulted in the introduction of a regular system of routine maintenance for roads and equipment. The added efficiency and community participation decreased road maintenance costs sharply—from about \$5,833 per kilometer every three to five years, to \$283 per kilometer per year.

Virtually all personnel of DGCV, from the central office to the

community level road workers, received highly specific, job related training under the project. The DGCV now has the ability to identify training needs and satisfy them either in-house or through outside technical assistance.

Since development of the Rural Roads Rehabilitation project, the Dominican Republic has a well-maintained network of roads, overseen by a well-trained, coordinated and dedicated team of community based workers with DGCV support. It is expected that the improved transportation network will have a long-term, positive effect on the country's economic well being and development potential.



The Office of the Inspector General (OIG) has completed its second review of AID's implementation of the Federal Managers' Financial

Integrity Act (FMFIA) and the final audit report has been submitted to the Administrator. The auditors found that AID has yet to satisfactorily implement major provisions of the Act and the Office of Management and Budget (OMB) guidelines.

In 1982, before OMB issued its guidelines, AID prepared and distributed a detailed questionnaire to Washington bureaus and offices and to overseas missions. The questionnaire was designed to disclose internal control weaknesses, primarily of a financial nature.

The results of these questionnaires enabled AID to identify 285 weaknesses and served as the basis for the Administrator's assurance letter to the President and the Congress.

OMB guidelines issued later in 1982 established a seven-step process for meeting the requirements of FMFIA. AID, however, has not yet

implemented the process called for in these guidelines. During the audit, OIG audit staff worked with AID management to institutionalize the seven-steps. As a result, AID is revising its vulnerability assessment approach.

"The questionnaire was designed to disclose internal control weaknesses, primarily of a financial nature."

In addition to internal control aspects, FMFIA requires the Agency head to report on its accounting system's conformance to the principles, standards, and related requirements prescribed by the comptroller general. AID did not report on its accounting system in 1983 because it was installing a new system.

AID has not reported on its new accounting system due to delays in

system installation. Unless interim evaluations are made, AID will not report on the new accounting system until Dec. 31, 1986, but it will report on the accounting system currently in use.

The audit report, which includes both implementation of A-123 and the accounting system reporting requirements, contains 19 recommendations that will assist AID management to implement FMFIA.

Additionally, the OIG will continue to monitor implementation of FMFIA to ensure that the OMB mandated process is institutionalized, and that areas of highest vulnerability are identified, appropriate evaluative action is taken and all identified weaknesses are reported and corrected.

—Reg Howard

Help combat fraud, waste and abuse. Use the AID Inspector General hotline to report theft or misuse of AID resources: (703) 235-3528 or P.O. Box 9664, Arlington Post Office, Rosslyn Station, VA 22209.



United Way International and AID are actively involved in assisting Jamaica to strengthen its private and voluntary

organization (PVO) sector through a \$5.8 million, five-year project.

AID is providing \$3 million through the Voluntary Sector Development project which was signed in 1983. The AID mission in Jamaica will work with the Jamaican Council of Voluntary Social Services (CVSS), fund specific programs and assist local PVOs.

As part of its assistance in establishing the Jamaican CVSS, United Way International recently held a three-day training seminar at its headquarters in Alexandria, Va.

In addition to several Jamaican ministers, participants included Lou Reade, mission director in Jamaica; Austin Heyman, deputy director, Office of Private and Voluntary Cooperation, FVA; and Paul Maquire, PVO officer for the Bureau for Latin America and the Caribbean.

FROM WID



Equality, development and peace—themes of the U.N. Decade for Women—and its subthemes of education, employment and

health have generated a variety of national and international measures to address the roles and needs of women. As the decade draws to a close, 1985 should be a landmark year for women in development.

Among major events will be the World conference on the U.N. Decade for Women to be held in Nairobi, Kenya in July. Along with partici-

“By its end, the U.N. Decade for Women will have produced three world conferences for and about women.”

pating in the conference, AID is planning to support several other selected decade activities.

The Office of Women in Development has been involved in a number of activities throughout the U.N. Decade—particularly to address economic development concerns of women in less developed countries (LDCs). Currently, PPC/WID is working with the State Office of Information on coordinating the U.S.

conference secretariat and delegation.

In preparation for the conference, PPC/WID is funding a macro-economic study of third world economic policies and their influence on women in LDCs, publishing a summary of census and demographic information on women in 120 nations and preparing a report on AID's efforts to integrate Third World women into its development programs. Several other educational efforts are under consideration.

By its end, the U.N. Decade for Women will have produced three world conferences for and about women. The first was the Mexico City Conference in 1975. In 1980, the Mid-Decade Conference was held in Copenhagen. The effects of these conferences and the U.N. Decade on governments, the U.N. system and international organizations around the world have been substantial. Many new women's organizations have been organized; new government bureaus, programs and projects have been set up; policies have been changed; and increased attention has been paid to women in development concerns.

The Nairobi Conference (known officially as the “World Conference to Review and Appraise Progress Achieved and Obstacles Encountered in Attaining the Goals and Objectives of the United Nations Decade for Women”) will bring together officially appointed delegations of U.N. member nations, as well as numerous private and voluntary organizations (PVOs) and non-governmental organizations (NGOs) linked to the U.N. system.

The Nairobi conference agenda will include assessing progress in advancing women's status, analyzing obstacles encountered and developing strategies in light of current and probable future trends.



As the decade draws to a close, 1985 should be a landmark year for women in development.

Parallel to the official U.N. conference, a non-governmental meeting, known as “Forum '85,” also will take place. It will deal with the same issues as the official conference, but will offer varied opportunities and occasions for debate, discussion and practical hands-on experience. Similar NGO meetings were held at the Mexico City and the Copenhagen conferences and were attended by

large numbers of U.S. and LDC women leaders as well as representatives of major national and local organizations and PVOs.

For further information on the conference and possible bureau and/or mission involvement in decade activities, contact PPC/WID, room 3725-A, NS.

—Deborah R. Purcell

Administrator M. Peter McPherson addressed the U.S. Chamber of Commerce in Washington, D.C. on Dec. 12. In discussing Ethiopia and mixed credits, he said that the United States clearly has taken the lead role in the Ethiopian famine, and America's private sector also has responded magnificently.

The Advisory Council on Voluntary Foreign Aid held its conference on “Allocating Limited Resources for Maximum Impact” at the Department of State on Dec. 3. **Deputy Administrator Jay F. Morris** spoke to the group on the Agency's strategic priorities and how private and voluntary organizations (PVO's) can be helpful in maximizing resources for developmental assistance abroad.

Other speakers:

Dee Ann Smith, associate director, Office of Legislative Affairs, spoke to a group of high school juniors and seniors, sponsored by the Close-Up Foundation at the State Department on Dec. 3. Smith gave the students a general overview of AID.

Victor Rivera, assistant administrator of the Bureau for Latin America and the Caribbean, addressed the eighth annual Miami Conference on Caribbean Trade, Investment and

SPEAKERS CIRCUIT

Development on Dec. 5. Rivera spoke at a briefing session titled “Infrastructure Development as a Foundation for Trade and Investment.” The conference was sponsored by Caribbean/Central America Action with the cooperation of the Department of State.

Edwin Hullander, associate assistant administrator, Office of Policy Development and Program Review, participated in the American Enterprise Institute's Public Policy Week titled “Are World Population Trends a Problem?” He served as an AID commentator for the main program in Washington, D.C. on Dec. 5. Textile manufacturers met at the Commerce Department on Dec. 12 to hear Hullander speak on available AID funding programs and an overview of AID policies. He also spoke to a group of graduate students from the Washington International Center at Meridian House on Dec. 26. Hullander discussed AID and its policies toward Third World countries.

Don Finberg, special assistant for the Africa Bureau, traveled to Boston to speak at the Harvard Africa Research

Program Center for International Affairs. The topic discussed on Dec. 6 was “AID Development Strategy: Programs for Promotion of Policy Reform.”

The National Council of Negro Women heard **Kay Davies**, director of the Office of Women in Development, and **Ronnie McIntosh**, chief of information and technical assistance division, Office of Private and Voluntary Cooperation, discuss the partnership between AID and PVOs with an emphasis on women. They spoke at the National Affiliates Assembly in Washington, D.C. on Dec. 7.

Nyle Brady, senior assistant administrator, Bureau for Science and Technology, met in Washington, D.C. on Dec. 11 with the Futures Group for the Contraceptive Social Marketing project to discuss AID's population programs.

Ted Morse, presently attending the Foreign Service Institute, spoke to the Reserve Forces Policy Board of the Department of Defense. On Dec. 11, he served on a three member panel

to address the issue of Reserve Force participation during and after the Grenada rescue operation.

Ron Davidson, deputy assistant administrator, Bureau for External Affairs, spoke to a group of college honor students on “Why Foreign Assistance” during a recent trip to California. Davidson met with El Camino College students and community residents on Dec. 20 to brief them on AID and foreign assistance policies.

Rick Endres, Office of Foreign Disaster Assistance, traveled to Moorestown, N.J., to speak at St. Matthews Lutheran Church on Dec. 23. Endres briefed the audience on the famine in Africa and the U.S. response.

—Molly Donlon

Former AID officers in the northern New England area who might be interested in sharing their experiences and expertise in seminars sponsored by the New Hampshire Council on World Affairs are requested to contact Arthur Mudge, P.O. Box 231, Hanover, NH 03755, telephone (603) 643-6299 (office) or 643-8236 (residence).



EMBRAPA, the federal agricultural research organization of Brazil recently signed a Memorandum of Understanding (MOU) with AID which enables EMBRAPA to join with U.S. universities in Title XII projects.

The agreement will permit EMBRAPA to become a partner in joint ventures with U.S. universities which submit proposals for AID projects. The program is designed to help less developed countries with their agricultural development.

Victor Rivera, assistant administrator of the Bureau for Latin America and the Caribbean, and Eliseu Alvers, president of EMBRAPA, signed the MOU in Brazil. Ernest Marshall, BIFAD board member, also participated in the ceremony.

Howard Lusk, AID's representative in Brazil, said that the signing of the agreement was a landmark in U.S.-Brazilian relations in the field of technical cooperation. "EMBRAPA enjoys an international reputation as an outstanding agricultural organization and AID is looking forward to working together on a collegial basis with EMBRAPA in providing agricultural assistance to developing countries," he said.

Created in 1972, EMBRAPA has benefited by receiving technical assistance and graduate training from U.S. universities, along with financial support from AID.

The organization is structured along commodity lines, with each of the 61 stations throughout Brazil having a well-defined mandate. For example, the station located in Goiana has the national responsibility for research on beans and rice, the

one in Planaltina has development of the acid savannas, and the station in Manaus has rubber and oil palm.

The 10 universities that will work jointly with EMBRAPA under AID contracts are Purdue, Mississippi State, Texas A&M, Southern Illinois, Michigan State, Ohio State, the University of Arizona, and the University of Illinois.

—Fred E. Hutchinson

UNIVERSITIES EXPLORE LINKAGES WITH INDIA

BIFAD Board Chairman E. T. York recently led a team of six land-grant college deans to India to review progress in that nation's agricultural economy and university system at the request of the government of India.

During the visit, representatives of the U.S. and Indian universities agreed to explore possibilities for expanding linkages between the participating schools.

It is generally thought that agricultural universities have made a major contribution to India's growth in food production—from 50-55 million tons in the 1950's to about 150 million tons in 1984—by training persons crucial to developing, adapting and disseminating new technologies.

Team members included Francille Firebaugh, Ohio State University; John R. Campbell, University of Illinois; Roger Mitchell, Pennsylvania State University; John Dunbar, Kansas State University; O. G. Hall, University of Tennessee; W. Wayne Hinsh, cooperative extension service, Pennsylvania State University; Priscilla Boughton, deputy executive director of BIFAD, and former AID mission director in India; and Douglas Ensminger, University of Missouri and former Ford representative in India.

—Priscilla M. Boughton

AGRICULTURE



A symposium on the management of nitrogen and phosphorous fertilizers in sub-Saharan Africa will be sponsored by the International

Fertilizer Development Center (IFDC), Muscle Shoals, Ala., in collaboration with the International Institute of Tropical Agriculture (IITA), the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) and the Ministry of Rural Management, Republic of Togo. It will be held March 25-28 in Lome, Togo.

In addition to examining various aspects of the fertility and productivity of tropical African soils, the symposium will review three years of experimentation in sub-Saharan Africa by IFDC, IITA, and ICRISAT under the fertilizer research program for Africa funded by the International Fund for Agricultural Development (IFAD).

Interested agricultural development officers should write or telex Uzo Mokwunye, Agro-Economic Division, International Fertilizer Development Center, PO Box 2040, Muscle Shoals, Ala. 35662, TWX-810-731-3970 IFDEC MCHL.

MILKFISH RESEARCHED

Milkfish, a popular foodfish in Asia, will be researched under a Cooperative Agreement between S&T/AGR and the Ocean Institute of Hawaii.

Emphasis will be on artificially inducing milkfish to spawn in captivity. Among other activities, the institute will exchange scientists and participate in joint training with the Southeast Asia Fisheries Development Council's Aquaculture Department in Iloilo, the Philippines, and the Tungkan Marine Laboratory, Tungkan, Taiwan.

GOAT MILK PRODUCTION TO AID LDCS

Milk production from goats offers an important means of providing animal protein for home use or sale for LDC small-holder farmers. However, some type of supplemental nutrients is usually required by lactating does in some seasons of the year.

Research recently completed by the Small Ruminant CRSP suggests ways of economizing in the feeding of goats. In these studies, ground algarroba seed pods (*Prosopis juliflora*) were compared with ground yellow corn in ration formulation for milking does. The results indicate that satisfactory rations can be formulated using algarroba.

From a nutritional energy standpoint, the algarroba seed pods do not appear to equal corn because the seed pods have a higher fiber content. Efforts are being made to encourage the production of algarroba, but because it is a tree, a few years are required for it to reach the production stage. Even in the absence of on-farm production, algarroba can be purchased much more economically than corn or other feed grains.

In another part of the same study, urea was used to replace 75% of the cottonseed meal in formulated rations. When used as an ingredient of rations based on corn as an energy source, urea produced results comparable to that of cottonseed meal. However, urea appeared to be less satisfactory when used as an ingredient in algarroba-based rations. These studies suggest that urea often can be used to good advantage by goats, and that it would in most cases be more economical than natural protein supplements such as the oil meals. On-farm field trials have used urea-based rations with favorable results.

These studies used local or native Anglo Nubian and Alpine does. The latter were substantially the heavier milk producers. This experience suggests that exotic types of milk-type goats can adapt and perform satisfactorily in Northeast Brazil when proper attention is given to nutritional needs.

The research was conducted in collaboration with CNPC (Centro Nacional de Pesquisa de Caprinos) and EMEPA-Pb. (Empresa Estadual de Pesquisa Agropecuaria da Paraiba) at Fazenda Pendencia near Soledade, Paraiba, Brazil. The researchers were A. Rodrigues, W. H. Sousa and P. R. M. Leite, EMEPA (Empresa Estadual de Pesquisa Agropecuaria), and C. A. Zometa and J. M. Shelton, Texas A&M University.

IPM STRATEGIES ORGANIZED

A recent international seminar on strategies for Integrated Pest Management (IPM) for basic food crops in the Sahel was organized by the Interstate Committee for Drought Control in the Sahel.

The seminar covered bioclimatological and socio-economic aspects of IPM, a general review of insect problems in the Sahel, and a report on an IPM project in the Gambia in 1984.

Presentations and working-group sessions focused on identifying the major pest species, determining their significance in limiting crop production, reviewing current control practices and research, and, where possible, recommending new approaches.

PHOSPHATE DEPOSITS TRAINING OFFERED

The International Fertilizer Development Center (IFDC) will offer training on the development of indigenous phosphate deposits May 20-June 6 at IFDC Headquarters in Muscle Shoals, Ala.

The classes are for persons in decision-making or supervisory positions with responsibility for technical aspects of phosphate ore evaluation or exploitation, phosphate fertilizer production or phosphate use in agriculture.

Experienced geologists, chemical engineers, chemists, soil scientists, agronomists and economists from national and international organizations will provide the training.

Applications should reach IFDC (P.O. Box 2040, Muscle Shoals, Ala. 35662) before April 20. Further information will be provided to those who apply. The local contact is John Malcolm, S&T/AGR, room 4068 SA-18, telephone 235-1275.



The Office of Equal Opportunity Programs has made steady progress in reducing the backlog of complaints of discrimination and is expected to be current by the end of March. The time spent in processing these complaints has also been reduced.

Currently, there are 23 individual complaints (10 GS and 13 FS) of discrimination pending in EOP. Of that number, eight (two GS and six FS) are in the preliminary stages of the complaint process; two (FS) are under investigation; six (two GS and four FS) are awaiting the issuance of a proposed disposition; a proposed disposition has been issued in two (GS) cases; one (GS) is awaiting a final Agency decision; and four (three GS and one FS) are assigned to the Hearing Unit of the Equal Employment Opportunity Commission (EEOC).

In addition, eight (three GS and five FS) are under appeal before the Equal Employment Opportunity Commission's Office of Review and Appeals (ORA) on procedural matters and five complaints (one GS and four

FS) are in litigation in the Federal Courts.

Some of the individual complaints of discrimination being processed by EOP contain several bases of discrimination and also contain several allegations. In several instances where a complainant has filed more than one complaint, these complaints have been consolidated.

The breakdown of the different bases of discrimination include 10 complaints based on race (five GS and five FS); four complaints based on sex (three GS and one FS); seven complaints based on age (two GS and five FS); three complaints based on national origin (all FS); one GS complaint based on mental handicap; one FS complaint based on physical handicap; and one complaint based on color.

Six complaints (five GS and one FS) are from the failure to promote; four (FS) from failure to hire; five complaints (one GS and four FS) due to termination; one complaint (GS) alleges deletion of job assignments; one complaint (GS) regards an abolished position and one complaint (FS) concerns denial of an Agency award.

—Voncile Willingham

SEED BOOK PUBLISHED

"Producing Seed of *Gliricidia sepium*," a practical booklet, with visuals that make it excellent for field use, has been published by the International Livestock Center for Africa (ILCA).

Gliricidia, a highly useful tree in many parts of the tropics, is used for firewood, living fence posts, shade, livestock feed and green manure. The tree is leguminous and easily propagated and managed.

In the booklet, *Gliricidia* seed production is explained by 12 simple black and white photos with captions.

Agricultural Development Officers may request single copies from S&T/PI, 209, SA-18. Arrangements for bulk copies should be made directly to ILCA, P.O. Box 5689, Addis Ababa, Ethiopia.

AGENCY INVOLVED IN PRESERVING DIVERSITY

The Agency's Research Advisory Committee took up the question of AID involvement in efforts to preserve biological diversity at its meeting last August. The committee advised that AID should become involved in a major way, because many of its projects are closely related to biological diversity issues.

Support for *ex-situ* germ plasm banks that provide parent material for the development of new crop varieties—one type of activity that appears appropriate to AID's program, according to the committee. There may also be opportunities for *in situ* preservation where areas of broad natural diversity are maintained for later evaluation and possible use.

To the extent that AID programs alleviate hunger, control population growth, etc., the Agency already advances the cause of biological diversity indirectly, the committee said.

The committee cautioned that the question of whether a species is preserved should be based on an analysis of costs and benefits. If the cost is low, it may be best to preserve the species though the demonstrable benefit is modest, as science may uncover new values in the germ plasm. At whatever cost, AID must give priority to human needs in its conservation efforts.

Finally, the committee advised that because choices on species preservation must be made, AID should establish criteria for preservation that take into account the biological, economic, scientific, esthetic and recreational dimensions of the problem, as well as the possible use of that which is preserved.

ENERGY

GUIDEBOOK FOR FINANCING ENERGY CONSERVATION ISSUED

A guidebook that examines five innovative methods for financing investments in energy conservation has been prepared under the Energy Conservation Services Program, a component of the Energy Policy Development and Conservation project

in the Office of Energy (S&T/EY).

The five financing arrangements have been used in developed countries and hold promise for developing countries as well. They are intended to overcome the most common barrier to investment in energy—the limited ability or willingness to acquire and use the capital needed for such technologies.

Under each of the five arrangements, the company needing the new equipment for energy savings would yield to others—outside investors or energy service companies—part of its profits in return for the ability to buy and install the equipment.

For each of the arrangements, the guide describes the structure and operation; the distribution of risk between the energy user and the external investor or creditor; and the financial benefits that accrue to each. All are illustrated with examples based on an energy conservation program proposed for a textile factory in Sri Lanka.

The project also has developed an interactive microcomputer model for evaluating investments in energy conservation. The model will aid local energy managers and company officials in analyzing investment opportunities and demonstrating the financial merits to lenders.

The model analyzes financial information, social cost-benefits and foreign currency requirements. Called ECPIE (Energy Conservation Project Investment Evaluation), for persons with basic understanding of project evaluation techniques and no knowledge of computer programming, the model is user-friendly. It is written for IBM-PC and compatible computers.

The guide is available to missions through the contractor, Hagler, Bailly & Co., 2301 M Street NW, Washington, D.C. 20037, telephone (202) 463-7575. For more information about ECPIE, contact Pamela Baldwin, S&T/EY.

POPULATION

PROJECT FUNDS HEALTH, POPULATION SURVEYS

A new AID-funded project is assisting developing countries carry out population and health surveys. The Demographic and Health Surveys (DHS) project provides financial and technical assistance for 35 demographic and health surveys throughout the developing world, particularly Africa.

Westinghouse Public Applied Systems, in collaboration with The Population Council, are carrying out the five-year project.

A major goal of the project is to help developing countries build a capacity for population and health research. The project seeks to promote the use of survey data for forming policies and designing and managing population and health programs. Special analyses will offer insights into factors relating to fertility and family health.

By expanding the data base and providing in-depth analyses, decision-makers will be able to make more informed policy choices. National and international health and population planners will also benefit as more comprehensive data is made available. Furthermore, the project seeks to help countries institutionalize their abilities to conduct high-quality demographic and health surveys.

Each study will be archived. In addition, The Population Council's periodical, *Studies in Family Planning* will include a new section featuring DHS project findings.

To obtain subscription information for *Studies in Family Planning*, contact The Population Council, 1 Dag Hammarskjold Plaza, New York, N.Y. 10017. Additional information on the DHS project may be obtained from Richard Cornelius, AID, Office of Population, S&T, room 820, SA-18, Washington, D.C. 20523.



Research projects are being developed to implement the terms of a fiscal 1985 continuing resolution mandate that calls for Israeli scientists to work with counterparts in less developed countries (LDCs).

The new and entirely separate U.S.-Israel Cooperative Development Research (CDR) was announced by Administrator McPherson Nov. 2. The purpose of the program is to link Israeli and LDC scientists together in research.

The proposed projects must be of benefit to development, and importance to Israel is not a funding criterion.

Nearly 350 preproposals centering on drylands agriculture, health, energy and marine sciences were received by the Jan. 1 deadline. About 70 scientists have been invited to submit full research proposals for funding consideration.

Preproposals were also received directly from LDCs including Guatemala, India, Kenya, Philippines, Panama, Sri Lanka and Thailand. Officials hope the number of future applications coming directly from LDCs will increase.

Projects submitted for possible funding included proposals such as genetic control of chemical compounds in plants; plant "immunization" for crop protection against viral diseases; development of drought resistant wheat germplasm; and energy-saving preservation of poultry and meat through fermentation.

Also, new systems for monitoring the treatment of leprosy; development of a vaccine against canine leishmaniasis; projects for the biological control of disease-carrying mosquitos, and several proposals dealing with plant biotechnology were submitted.

—H. A. Miners

1985 PAY SCHEDULE

RATES EFFECTIVE January 6, 1985 Authorized by Executive Order 12496

CATEGORY AND GRADE	STEP RATES WITHIN GRADE OR CLASS (DOLLARS)						
	1	2	3	4	5	6	7
GS	FS						
16		88,152*					
17		71,804*	74,197*	76,590*	78,983*	81,376*	83,769*
18		61,296	63,235	65,174	67,113	69,052	70,991
15		52,262	54,004	55,746	57,488	59,230	60,972
	1	52,262	53,830	55,445	57,108	58,821	60,586
14		44,430	45,911	47,392	48,873	50,354	51,835
	2	42,348	43,618	44,927	46,275	47,663	49,093
13		37,599	38,852	40,105	41,358	42,611	43,864
	3	36,315	37,344	38,373	39,402	40,431	41,460
12		31,619	32,573	33,527	34,481	35,435	36,389
	4	30,348	31,234	32,120	33,006	33,892	34,778
11		26,381	27,260	28,139	29,018	29,897	30,776
10		24,011	24,811	25,611	26,411	27,211	28,011
	5	23,531	24,267	25,003	25,739	26,475	27,211
9		21,804	22,531	23,258	23,985	24,712	25,439
	6	20,142	20,746	21,369	22,010	22,670	23,350
8		19,740	20,398	21,056	21,714	22,372	23,030
	7	18,006	18,548	19,090	19,632	20,174	20,716
7		17,024	17,518	18,012	18,506	19,000	19,494
	8	16,097	16,580	17,077	17,590	18,117	18,661
6		16,040	16,575	17,110	17,645	18,180	18,715
	9	14,391	14,822	15,253	15,724	16,196	16,668
5		14,390	14,810	15,230	15,650	16,070	16,490
	10	12,862	13,291	13,720	14,149	14,578	15,007
4		11,458	11,840	12,222	12,604	12,986	13,368
	11	10,501	10,790	11,087	11,383	11,679	11,975
3		9,129	9,350	9,571	9,792	10,013	10,234

Executive Schedule/Chief of Mission		Senior Foreign Service/Senior Executive Service	
EX-1	\$86,200	EX-IVCOM-10	\$72,300
EX-IVCOM-1	\$75,100	EX-IVCOM-9	\$68,300
EX-IVCOM-2	\$73,600	FEES-1	\$61,200
		FEES-2	\$63,800
		FEES-3	\$66,200
		FEES-4	\$68,700
		FEES-5	\$70,500
		FEES-6	\$72,300

CATEGORY AND GRADE	STEP RATES WITHIN GRADE OR CLASS (DOLLARS)													
	8	9	10	11	12	13	14							
18														
17														
16		75,547*	77,640*											
15		64,456	66,196	67,940										
	1	64,276	66,204	67,940	67,940	67,940	67,940							
14		54,757	56,278	57,759										
	2	52,083	53,645	55,255	56,912	58,620	60,378							
13		46,370	47,623	48,876										
	3	43,203	43,408	44,773	46,116	47,500	48,925							
12		38,987	39,051	41,105										
GS	FS	8	9	10	11	12	13							
	4	34,198	35,234	36,281	37,349	38,440	39,545							
11		32,534	33,413	34,292										
10		29,611	30,411	31,211										
	5	27,710	28,542	29,398	30,280	31,188	32,124							
9		26,893	27,630	28,387										
	6	24,772	25,515	26,281	27,069	27,881	28,718							
8		24,346	25,004	25,662										
	7	22,195	22,809	23,434	24,099	24,825	25,572							
7		21,982	22,576	23,170										
	8	19,797	20,391	21,003	21,633	22,282	22,950							
6		19,785	20,320	20,855										
	9	17,636	18,279	18,926	19,579	20,237	20,912							
5		17,750	18,290	18,710										
	10	15,865	16,294	16,723										
4		14,132	14,514	14,896										
3		12,530	12,877	13,216										
2		11,390	11,733	12,066										