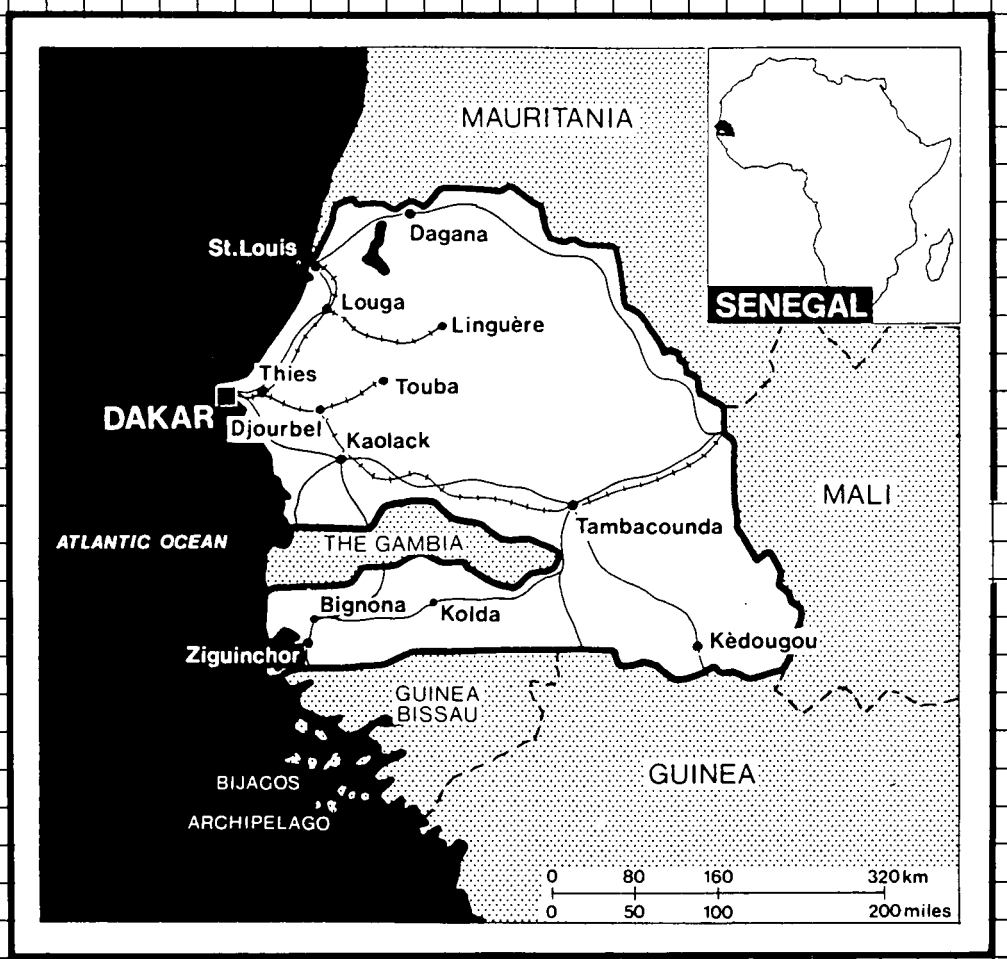
PEACE CORP TIMES



FOCUS—Senegal

September/October 1984

From the Director

In 1983, 350 Volunteers were evacuated for medical reasons. That same year 173 were medically terminated from Peace Corps service.

Those numbers may seem small when you consider that there are over 5,000 Volunteers in the field, not always living under conditions most conducive to good health. But to those of us who care, and there are many—your family, your stateside friends, your colleagues in the field, your host country friends and Peace Corps—even one is one too many.

In this issue we are beginning a series, "To Your Good Health." I hope you will read it carefully.

I know that most of the time your concern is for someone else, that is the reason you became a Peace Corps Volunteer. But some of you, even those involved in health care, like many health care professionals at home, neglect your own health.

Its easy to forget to take your malaria pills. Sometimes you're too tired to worry whether your mosquito net is secure. Often it's inconvenient to make sure your water is safe or you may think it's too hot to wear a motorcycle helmet. It may be easier to take your shoes off than to face the task of cleaning them later or finding others to replace them.

The Volunteer is Peace Corps' most precious commodity, one whose health and well-being is of primary concern. We try to provide you with the best preventive medical care possible but the ultimate responsibility lies with you.

A few weeks ago a med-evac stopped by to meet some of the Washington staff. During his visit the subject of this series came up. This young man, who has since (much to his and our sorrow) had to leave Peace Corps for medical reasons, was so enthusiastic about the series that he asked if he could tell his own story. It will appear in the next issue.

The material we are presenting is not new. You've seen it before. But, if by our publishing it just one Volunteer remembers to take medication or shows just a little more caution, it will be well worth it.

We want you to come home with only the best memories of Peace Corps, umblemished with remembrances or scars of illnesses or accidents.

So, the next time you're tired or you're thinking about taking a shortcut where your own well-being is at risk, remember that you are very precious to us . . . the work you are doing is very important—promoting world peace and international friendship—for that important work you need your health.

Loret Miller Ruppe
Director

PEACE CORPS TIMES

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To the Times

Dear Peace Corps Times,

Thank you for sending the issues of Peace Corps Times. I find that reading about Peace Corps around the World is extremely good tonic for my morale.

I work for a library that is part of a livestock development project here in Tahona, Niger. The people of Tahona are literally "hungry" for reading material and I would like to share with them information and news about Peace Corps. Is Peace Corps Times ever published in French? Or are there any other publications about Peace Corps available in French that I might be able to obtain?

I intend to inquire at our country bureau in Niamey too, next time I am there but I don't remember seeing such materials in the reference collection there.

I look forward to your reply, and thank you.

Bunny Dalebout
Tahona, Niger
West Africa

Dear Bunny,

Peace Corps Times is printed only in English. However, we are exploring the possibility of running "side by side" columns in French when a feature story concerns one of the Francophone countries. If this works out, you would be able to share some portions of the Times with your counterparts and friends.

We are happy to respond to your second question with the answer that the Public Affairs Office is currently in the process of producing material in French for distribution by PCVs and Peace Corps staff in country. We are hoping to have some of it available to you by the end of the year.

You'll be interested to know that both projects have come about because of letters and inquiries like yours. So, keep those cards and letters coming.

The Editor

Senegal photos by Cynthia Johnson.

To Your Good Health

An Ounce of Prevention . . .

In 1983 three Peace Corps Volunteers lost their lives due to illnesses. Though Volunteer deaths do not occur frequently, the loss of a single Volunteer is a cause of great concern to Peace Corps. An abundance of information on potential health problems is given to Volunteers during their pre-service training. To the dismay of Medical Services, much of this information goes unheeded.

Since many Volunteers live and work in areas where health care is poor or non-existent, healthcare maintenance depends upon the concientious efforts of the individual. Medical Services suggests that most illnesses that strike the Volunteer population are preventable through the use of appropriate measures.

Simple hygiene and preventive care practices could ward off many diseases that have potential serious side-effects, some of which prove fatal.

"Malaria is the single most serious threat to health and life that is preventable."

The most common health hazards facing Volunteers are accidents, skin infections, gastro intestinal disorders, stress-related disorders, malaria, and upper respiratory tract infections.

Some of the above mentioned conditions can be prevented through water purification, food hygiene, personal and dental hygiene, sanitary disposal of excreta and solid waste, immunizations, and use of the Peace Corps health kit.

There are others that are directly related to occupational and recreational activities. "Schistosomiasis, a gastro intestinal problem, is an occupational and recreational disease, because the parasite thrives in fresh water," says Dr. Rose Gibbs, Director of Medical Operations. Dr. Gibbs notes that schistosomiasis can be contracted simply by swimming or washing clothes in fresh water that has been contaminated by the parasite.

The incidence of schistosomiasis among Volunteers is very low whereas malaria, a very preventable disease, is high. "Malaria is the single most serious threat to health and life that is preventable," says Dr. Gibbs.

Malaria can only be transmitted through the bite of an infected mosquito. Necessary precautions to be taken are the weekly ingestions of chloroquine (aralen), utilizing mosquito coils, netting and insect repellant, wearing clothing that covers arms and legs and using screens in living quarters. In some areas it is necessary to take chloroquine and another drug, fansidar, because the mosquitos have developed an enzyme system that is resistant to chloroquine. Dr. Gibbs says that the number of countries reporting chloroquine resistant malaria increases by one or two each year. Geographical areas reporting resistant malaria are Southeast Asia, Central America, South Pacific and East and Central Africa.

Medical Services reports that the incidence of malaria is high because some Volunteers tend to use drugs other than those prescribed by the Peace Corps Medical Officer or in some cases do not take them at all. Others tend to take shortcuts with precautionary measures that can have disastrous results.

"Non-compliance with policies on malaria may result in early termination," says Dr. Gibbs. She explains that this harsh tactic is used to protect the Volunteer from potential health hazards and because the recurrence of malaria causes the loss of valuable time on Volunteer projects.

Recently Dr. Gibbs conducted a medical survey in Tanzania where there are 38 PCVs in service. Of the 21 responses she received, 12 Volunteers indicated they use drugs other than chloroquine and fansidar. Of the 12, some reported having malaria as many as three times and one Volunteer has had it as often as every three months.

Though Dr. Gibbs admits that the ingestion of chloroquine and fansidar does not absolutely prevent a Volunteer from contracting malaria, it most certainly decreases the chances.

Medical Services recommends each Volunteer take 500mg of aralen (chloroquine) per week, preferably on the same day. If you have the white tablets (250mg), take two or one 500mg pink tablet. If you live in a chloroquine resistant area (see chart) you must take another antimalarial drug—fansidar, in addition to aralen. Take the medicine immediately following meals to prevent stomach discomfort.

You must continue this regimen throughout your Peace Corps service and for six weeks after you leave the malarial area. Once you leave the malarial area you must take one tablet of primaquine daily for 14 days to eradicate any parasites in your system.

You will want to share this information with any friends and relatives that might be thinking of visiting your site during your Peace Corps service before they leave the U.S.

Patti Raine

Malarial Countries

Belize
Benin
Botswana
*Burundi
Cameroon
*Central African Republic
Costa Rica
Dominican Republic
*Ecuador
Gabon
Gambia
Ghana
Guatemala
Haiti
Honduras
*Kenya
Liberia
*Malawi
Mali
Mauritania
Niger
*Nepal
*Papua New Guinea
*Philippines
*Rwanda
Senegal
Seychelles
Sierra Leone
*Solomon Islands
Sri Lanka
*Sudan
*Tanzania
*Thailand
Togo
Burkina Faso (Upper Volta)
Yemen
*Zaire

*Denotes chloroquine resistant countries

Although Lesotho is not a malarial country its proximity to others that are malarial countries warrants the Volunteers serving in that southern African country to adhere to the malaria policies.

FOCUS—Senegal

The first challenge to new Peace Corps Volunteers is adjusting to their host country—its culture, climate, food, traditions and lifestyles. In this issue, Peace Corps Times features a group of new Volunteers at their in-country training site in the African nation of Senegal.

To begin their service, these Volunteers had ten weeks of training in Senegal. Although many are fluent in French, the official language, they had intensive instruction in local languages, primarily Wolof. During this time they learned the word, "teranga" which loosely translates as hospitality. They were welcomed into their host families with hospitality which the Senegalese are renowned for.

Most of these Volunteers are now living in villages and are assigned to rural development (animation) projects. They are serving as project management advisors under the direction of Senegalese government supervisors.

Brief History

To know a country, one must learn a little of its history. The Senegal region has been inhabited since prehistoric times and was controlled by powerful Africans until the forerunners of colonialism, the European traders and explorers, arrived.

During the 13th and 14th centuries, the area was ruled by the Mandingo Empire to the east. It was in this time period that the now prevalent Wolof Empire was founded.

In 1444, a Portuguese expedition landed; then Dutch and French traders arrived in the 17th century. The British conquered Senegal in the 18th century and united it with Gambia to form the colony of Senegambia. While the British were busy with the American Revolution, the French recaptured Senegal and allowed the British to keep the Gambia which juts 200 miles into Senegal from the coast. (see map)

Senegal became a French protectorate in the late 1800s and a colony in 1920. After World War II, Senegal was granted status as an overseas territory in the French Union of Communities. In 1958, it became an autonomous member of the French community with self-rule in domestic affairs. The next year Senegal and the French Soudan (not to be confused with Sudan) merged to form the Mali Federation. In 1960, Senegal established itself as the Republic of Senegal and the French Soudan became the Republic of Mali.

The Country and its People

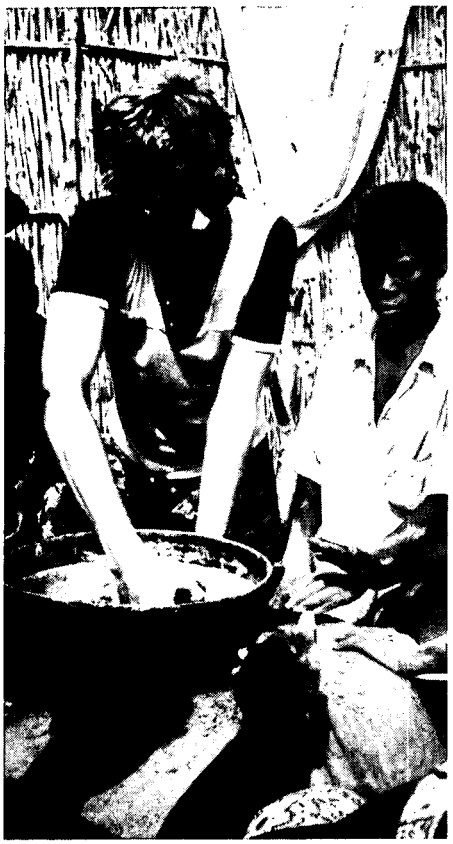
Senegal is about the size of South Dakota with more than seven times the population. Nearly half of its people are under 19 years of age. Most of the country is rolling plains. In the southeast, plateaus rise from the foothills of the Fouta-Djalon Mountains. The southwest is marshy swamp and tropical forests. Senegal has four major rivers—the Senegal, Saloum, Gambia and Casamance, which are important sources of irrigation and transportation. The dry season runs from November to June and then come the rains which increase as one nears the equator.

There are six major ethnic groups in Senegal that make up 95 percent of the population. About 70 percent are rural people who live in their traditional tribal territories.

The largest group at 36 percent is the Wolofs who dominate the cities and are the leading growers of peanuts. Wolof is considered the national language and the language of commerce. The other major tribes are the Seres, who farm along the Thies and Saloum Rivers and south of Dakar; the nomadic Peulh herdsman; the Toucouleurs, branch of the Peulh who have settled on the north bank of the Senegal; the Mandinques, farmers in the Gambia and middle Casamance River valleys and the Dioles who also farm along the Casamance. Other tribes include the Lebrous, Bainouks, Balantes, Sarakholes, Bambaras, Moors and Barraris.

Complete with the most effective visual aids the new Volunteer explains the importance of sanitation.

Cover map from Africa Guide 1983.



Learning together is a satisfying experience. Here the Volunteer learns the fine points of finishing a mud stove.

About the country

Population:	5.1 million
Land Area:	76,124, about the size of South Dakota
Major Cities:	Dakar (capital), Thies, St. Louis, Kaolack
Languages:	French (official), Wolof, Peul, Diola, Mandingo
Religions:	Muslim 80%, traditional (animism) 15% and 5% Christian
Exports:	Peanuts and peanut products, process food and fish, fertilizer
Climate:	Tropical
Borders:	Atlantic Ocean, Mauritania, Mali, Guinea, Guinea-Bissau and The Gambia which penetrates some 200 miles into the country

Peace Corps and Senegal

The first contingent of Peace Corps Volunteers invited to Senegal were 15 English teachers who arrived there in 1963. Since that time more than 700 Volunteers have served in Senegal working mainly in two sectors—education and rural development.

In the past, the Peace Corps program was predominately education with rural development playing a secondary role. Now the program is reversed due, in part to the large number of well-trained Senegalese educators which have developed during the past 20 years. Peace Corps programs in Senegal are:

Education—In 1982, 4 Volunteers entered a new English language program as trainers and technical advisors to Senegalese English teachers. They serve as resource people, do classroom observation and organize teacher workshops around the country. They are also responsible for resource centers for teachers and libraries for teachers and students. This year there are 10 Volunteers in this project.

Community Health Education—Only four years old, this program has focused on upgrading primary school teachers in the areas of health, nutrition, hygiene, sanitation, first-aid and safety. The Volunteers also organize first-aid clinics and workshops. Two years ago, the Volunteers, with the assistance of Senegalese doctors and educators, formulated a health teaching manual. Those working in this area have also studied traditional African medicine and assisted with planning school and home gardens.

Inland Fisheries—This project's objective is to establish fish culture as a viable means of producing protein and capital for the people who live along the Senegal River. Fish ponds are built on the irrigated perimeters and the management of these ponds is the responsibility of a private individual or group with the assistance of a Volunteer. Volunteers working in this project are assigned to Senegal's Service of Waters and Forests.

Conservation / Improved Cookstoves—Volunteers in this project, financed by USAID, work with the Renewable Energy Research and Development Center to develop and disseminate building techniques for fuel-saving mud and sand cookstoves. This program is to train the Senegalese to build the stoves and to teach others in both rural and urban areas the techniques and the advantages of using the stoves. So far, the measurable energy savings in rural areas is about 25 percent with a potential savings of about 40 percent.

Forestry—Volunteers in this project are assisting in three community level reforestation projects. One, located in the Diourbel Region, is in conjunction with USAID, Africare and Senegal's Service of Waters and Forests. It is stressing community woodlots for fuelwood and agroforestry plantings.

New Volunteers receive briefing on Senegal from United States Ambassador Charles Bray (third from left).

Peace Corps Volunteers often find they have untapped talents. A friend who can give a haircut is a real find.

Another project, in conjunction with the Senegalese Government is located in the Sine Saloum Region. It is designed to address the issues of reforestation and land use patterns from a regional perspective.

Peace Corps is working with the development agency for the Groundnut Basin in a reforestation project. Volunteers and villagers have planted 19 nurseries of fuelwood and fruit trees.

Most Volunteers in the forestry program have secondary projects of improved cookstoves and vegetable gardens.

Rural Development / Animation (animation is the French term encompassing rural development)—About half of the Peace Corps Volunteers in Senegal are involved in this project which runs throughout all eight administrative regions of the country. The chief task of the Volunteer is to work with established community groups to identify their most urgent development needs and to help set up organizations to carry out their activities.

Rural development Volunteers are working in three major programs:

1. Income generation—helping to implement projects concerned with rural machinery, kitchen and truck gardens, fruit plantations, cloth-dying cooperatives and community-owned stores.
2. Improving the quality of life—working with village groups on pharmacies, water supply and sanitation, nutrition and health education, community centers, schools, energy-saving stoves and food-drying and storage.
3. Training—helping villagers to manage project activities, learn simple bookkeeping methods and to help with the technical training.

Some of the most successful results of the animation program include millet grinding and rice dehulling; tie-dye cloth manufacturing coops; community-owned stores; planting of trees for shade, windbreaks and woodlots; community gardens and garden wells; livestock fattening projects; new and improved wells for potable water; malaria prevention projects and literacy training.

Private Volunteer Organizations/ Project Assistants—Peace Corps Senegal has placed Volunteers with Dakar-based international organizations as project assistants. Peace Corps Volunteers are working with the Catholic Relief Services, the National Council of Negro Women and the United States Embassy's Self-Help Fund in their efforts to reach the rural population.

Country Co-Directors

Senegal is one of two Peace Corps countries which has a team of Co-Directors, Lorraine and Amos Isaac.

Mrs. Isaac began her tour of duty in August 1980 and was joined by her husband, Dr. Isaac later that year. She previously served as a trainer of Peace Corps Volunteers in 1972 in Togo where she was also a teacher at the Lycee de Tokoin.

An educator, Mrs. Isaac earned a bachelor's degree in education and a master's in English from Wayne State University. She has been a program officer for the Phelps-Stokes Fund, a teacher in the Jefferson County (Alabama) and Detroit school systems and at the American School in Paris. She was also a Fulbright Exchange Teacher in England.

Prior to becoming Co-Director in Senegal, Dr. Isaac was the director of the Jefferson County Alabama School District and director of the Miles College Teacher Corps Project. Dr. Isaac served with the first group of Peace Corps Volunteers in Liberia in 1962.

Volunteers find traditional food preparation fascinating. This village woman pounds millet much as her ancestors did hundreds of years ago.

The Volunteers

Martha Holleman of Denver, Colo., is a recent graduate of Mt. Holyoke College, Mass., where she studied history and political science.

Michael Crea of Staten Island, N.Y., graduated with a degree in education from Cornell University. Prior to joining Peace Corps he was a teacher in New York and a divinity student at Catholic University of America.

Another recent graduate, **Deborah Murray** is from Rochester, N.Y. Her degrees from Nazareth College were in management and French.

A resident of Boise, Idaho, **Mary Ann Pace** received a degree in political science from the University of California, Santa Barbara last year.

James French of Sparks, Md., graduated from the University of Pennsylvania where he studied communications.

No stranger to living overseas **Karen Schoonmaker** was on the staff at the United States Embassy in Kathmandu, Nepal, prior to Peace Corps. She is from Oberlin, Ohio, received a bachelor's degree in political science from Bryn Mawr College and a master's in development economics from Princeton University.

The next issue of Peace Corps Times will feature Volunteers on the island nations of Haiti, Dominican Republic, Turks and Caicos.

In this group of Volunteers, and possibly all of Peace Corps, **Daniel Owens** holds the record for being the farthest from his home town—Anchorage, Alaska. Owens holds a degree in international studies from the University of Oregon.

Californian all the way, **Andrew Reid** is from La Habra and graduated from California State University at Fullerton, with a degree in political science and a minor in French.

Geologist **J. Martin Wagner** of McLean, Va., studied at Whitman College in Walla Walla, Wash.

A native of Newburg, N.Y., **Maureen Dempsey** graduated from Wellesley College in Mass.

Stephen Slampyak of Warminster, Pa., graduated from the University of Pennsylvania at Bloomsburg with a major in business administration and a minor in French. Before joining Peace Corps he had been working in France.

Susan Krasberg of Glenview, Ill., received degrees in French and sociology from the University of Colorado and a master's degree in international studies from the Monterey Institute of International Studies.

Monica Lamm of Rockwell, N.C., received her degree from the University of North Carolina at Chapel Hill in psychology and philosophy.

Virginia Graham of Kentfield, Calif., graduated from the University of Wisconsin with a degree in economics.

Native Nebraskan, **Robert Maletta** received his undergraduate degree from Creighton University in Omaha and graduated from the University of Puget Sound School of Law in 1981.

D.L. Dodd

"Finders of Lost Loves," an ABC-TV series, has programmed an episode entitled "Losing Touch" for October 20. The story line concerns a woman trying to rekindle a romance that began 20 years before in Kenya with another Peace Corps Volunteer.

Peace Corps visuals, banner and posters, will be used in background shots for an upcoming 20th Century Fox film, "The Man with One Red Shoe." Tom Hanks stars in this spoof with Carrie Fisher and Dabney Coleman.

Those who aren't dancing keep time with the music.

As part of the cross-cultural training Volunteers participate in the village festivities. Here one tries his luck at local dancing.

Peace Corps Families

"We feel we've reversed the decline and we're on a forward roll," Peace Corps Director Loret Miller Ruppe recently reported to several hundred people who have relatives serving as Volunteers. "In the 1980s, the Peace Corps is needed more than ever. Thank you for sending your loved ones out to be Volunteers... they are the most positive promoters of peace and friendship throughout the world."

Mrs. Ruppe was the featured speaker at the second of a group of briefings by Washington and Area Office staff for the families of Volunteers in July. The event was held in Atherton, Calif. in July at the home of Phyllis Draper, special assistant to the Director, who spearheaded the families program. It gave Peace Corps family members the opportunity to hear about the agency's programs, meet with staff and returned Volunteers, and talk with other Bay Area residents from San Francisco, Oakland, Marin County, San Jose and the South Bay who share the unique satisfaction of having a relative serving as a Volunteer.

Randy Hill from the Office of Private Sector Development reported on the willingness of American individuals and corporations to donate in-kind gifts, such as medical supplies, computers, vegetable seeds, and transportation, to enhance Peace Corps' development efforts. He also highlighted the Peace Corps Partnership Program.

Returned Volunteers brought their former assignments to life for the audience by telling stories, showing visual aids used in their work, and by singing in languages learned in their host countries. For the remaining hours of the evening, the families traded stories about "their" Volunteers.

A similar event was held for families of Washington, D.C., area PCVs at Peace Corps headquarters in May during National Volunteer Week.

"I am very pleased at the overwhelmingly positive response of Peace Corps families to these events," Mrs. Ruppe said. "They have told me how they benefit from meeting the staff, returned Volunteers and other families, but we at Peace Corps benefit too by the greater understanding, support and enthusiasm these parents and relatives are showing for our work." She added that similar programs are being planned throughout the year at Peace Corps' Area Offices across the country.

Mrs. Ruppe also announced that a new information brochure is available to Peace Corps families that covers concerns such as health, safety, family emergencies and other Volunteer support services. To receive a copy of "The Peace Corps Families," write:

Peace Corps
Families Brochure
806 Connecticut Ave., N.W.
Washington, D.C. 20526

Pat Seaman

Personnel/Personal Notes

Robert "Bob" Jackson, Special Assistant to the Director of Recruitment, has been named Associate Peace Corps Director for Kenya. Jackson served as a Volunteer in Niger from 1974 to 1976. He was a recruiter in the Atlanta Area Office from 1977 to 1979 and was manager of the Detroit Area Office from 1979 to 1981.

* * *

Rebecca Raymond, PCV in Niger from 1978 to 1981, is the new Associate Peace Corps Director for Health in Mauritania.

* * *

Margaret Gillatt will be returning to Togo as Associate Peace Corps Director for Agriculture. She served in that East African nation from 1981 to 1983.

* * *

Former Peace Corps Fellow William "Mike" Vale has been named Associate Peace Corps Director for Administration in the Dominican Republic. Vale was a Volunteer in Peru from 1967 to 1969.

Martin Mueller, former Budget Director for the Office of Management, has been named Chief of Operations for the Africa Region.

* * *

Tom Moore, recent Director of Recruitment, has been appointed to the post of Deputy Assistant Secretary for Public Affairs and Congressional Relations at the Department of Education.

Patti Raine

Dawson Partnership Program Chosen

Peace Corps Benin has selected a project to benefit from the Peace Corps Partnership gifts given in memory of the late Bill Dawson. Dawson, former Director of the Office of Training and Program Support, served as a Volunteer in Benin from 1968 to 1971.

Funds will be used in the construction of a dormitory and storage facility at a boarding house for children in Kouaba, the village where Dawson lived.

Spiraling Costs Erode Budget

Peace Corps' health services' costs in fiscal year 1985 will be $9.9 million or 8.6 percent of the total Peace Corps budget of $115 million.

Over one-third of this amount, an estimated $3.7 million, is made in payments to the Department of Labor to cover Volunteer claims for compensation required by law under the Federal Employees Compensation Act. The FECA payment, which is based on the previous year's costs, is estimated to increase another $200,000 to $3.9 million for fiscal year 1986.

These payments are required by law for Volunteers who are "on duty" 24 hours a day seven days a week. The costs of these payments are quite large when compared with other federal agencies because the likelihood of permanent illness, injury or disability is far greater for Peace Corps Volunteers than for most others associated with the United States Government.

The remainder of the health services budget is spent to provide a health support system of physicians, nurses and physicians' assistants and for evacuations to appropriate medical facilities.

Cameroon Honors Outgoing Director

David Bellama, former Country Director of Cameroon, was recently presented with a special medal of honor by the Government of Cameroon for his outstanding contributions to the people of that African country. Bellama recently completed a five and one-half year tour there as Country Director.

During his early days in Cameroon Bellama developed an interest in the language of the people, Pidgin. This interest led to his co-authoring a book, "An Introduction to Cameroonian Pidgin."

According to Bellama, Pidgin has its own grammatical system and vocabulary which is derived from English, Portugese and a number of other European and African languages. Most Cameroonians learn the language of their ethnic group first, Pidgin second and French third.

Peace Corps Volunteers in Cameroon learn Pidgin as part of their in-country training.

Photo by Ann Alvarez.

Peace Corps Director Loret Ruppe presents David Bellama, outgoing Country Director of Cameroon, with a commendation. Bellama is wearing the medal awarded him by the Cameroon government.

Peace Corps Enters Sudan

Peace Corps entered the Sudan, the largest country on the African continent, in September.

Five Volunteers will work on Sudan's Renewable Energy Project (SREP) in conjunction with Georgia Tech Research Institute, Energy Development International and Trans-Century Corporation. SREP is a five-year US AID project which is assisting the Sudanese Ministry of Energy and Mining.

"This unusual private and public sector arrangement symbolizes Peace Corps' emphasis towards multi-level cooperation," said Peace Corps Director Loret Ruppe. "By complementing and cooperating, Peace Corps has become an integral part of comprehensive energy renewal projects."

The Sudan contingent will be administered by the NANEAP Region which includes the other northern Africa countries of Morocco and Tunisia.

Peace Corps Times visited the Sudan Volunteers at their training site in Colorado and will feature them in the November-December issue.

Country Directors Chosen

Kenya

The new Country Director for Kenya is Robert Spencer. Spencer has been with Peace Corps for the past three years, the last two as Associate Director for Management. Prior to that he was Director of the Office of Compliance and was Special Assistant to the Associate Director for Management during the Peace Corps/Action separation.

Prior to Peace Corps, Spencer worked as a management analyst at the Department of Health and Human Services, the Department of Health, Education and Welfare and at the Naval Ship Research and Development Center.

He graduated from Suffolk University in Boston and received a masters in public administration from George Washington University.

Ecuador

Jose Cruz Velasco, who was born in Mexico and moved to Arizona at the age of two, will be the new Country Director in Ecuador. Ecuador is the largest Peace Corps project in the Inter-America Region.

With a diverse background, Velasco comes to Peace Corps from the White House Office of Public Liaison. He has been a personnel analyst for the City of Pasadena, California; a public policy analyst in Los Angeles and a personnel analyst at the University of California in Los Angeles. He was also a teacher with Montessori International.

Graduating cum laude from California State University at Long Beach, Velasco's major fields were Latin American studies, psychology and political science.

He will be accompanied to Ecuador by his wife, Guadalupe, one son, seven and two daughters, ages five and three.

Upper Volta Now Burkina Faso

The African country formerly known as Upper Volta has changed its name to Burkina Faso. The citizens of the country are now identified as Burkinabe. The name change was made official in August during the first anniversary of Captain Sankara's coming to power.

The three major ethnic groups of Burkina Faso—Moré, D'jeula, and Peule—are represented by the new names.

Burkina—Moré word meaning people of dignity
Faso—D'jeula (Bambara) word meaning homeland or Republic of
Burkinabe—Peule word meaning people from Burkina.

Peace Corp Partnerships and Rotary Clubs

The Peace Corps Partnership Program has always been the story of Americans and Third World citizens joining together to bring progress to needy communities. Now, the story is enriched by the sustained involvement of U.S. Rotary Clubs in international development projects around the world.

Rotary Clubs in Ohio, California and Wyoming have sponsored various projects guided by Peace Corps Volunteers in Central America and the Pacific, and the parent organization, Rotary International, is working with Peace Corps staff in Washington to explore possibilities to link Rotary Clubs in developing nations with U.S. Clubs in the sponsorship of Partnership projects.

Future joint activities may be established by Volunteers approaching the local Rotary Club in their village or town for assistance, and upon adoption of the project, the Rotary Club may seek funds from a U.S. Club or, if the project meets certain criteria, from the Special Grants Program or the Health, Hunger and Humanity (3-H) Program of the Rotary Foundation of Rotary International.

"Establishing a continuing partnership between Volunteers, communities, and Rotary Clubs around the world is a new and exciting type of private involvement in the needs of developing countries," said Partnership Program Manager Nicole Vanasse. "This special connection allows for an even richer cross-cultural exchange amongst the Volunteers, host country communities, U.S. Rotary Clubs and Rotary International chapters—everyone gives something to the whole and benefits from the experience."

The latest Rotary Club Partnership project is in itself unusual, for it was designed to improve Costa Rican forest and fruit tree nurseries on a country-wide basis. William Green, the Volunteer Forestry Extension Coordinator for the project, encouraged the Volunteers that teach in the nine agricultural high schools to apply for funding through Partnership to establish usable irrigation systems for their tree nurseries. The Canton Rotary Club, of Canton, Ohio, has donated $938.05 to purchase a water pump and construction materials to build a better irrigation system at one of the high schools in Sardinal de Carrillo; Mark Mosher is the extension Volunteer.

Last year, the Indian Wells (Calif.) Rotary Club contributed to the construction of a chicken house in Aimeliik, Micronesia, which became a village demonstration project not only for poultry house construction and the raising and tending of chickens, but for small business enterprise development and diet planning. In 1982, funds raised by the Lander (Wyo.) Rotary Club were used to establish a scholarship fund for hearing-impaired children whose parents cannot afford to send them to special schools in Bahol, Philippines.

Other Partnerships

Recently-funded Partnership projects include the following:

—PCV Mark Treacy, of Fort Walton Beach, Fla., applied for funds for several "panchayats" (townships) in Nepal to build a new schoolhouse for grades one through twelve. The Inter-Club Council of Choctawhatchee High School in Fort Walton Beach donated $1300 towards construction of the Rakhu School.

—PCV Peter Forsgren, of Spencer, Iowa, applied for funds for a school in Srigaun, Nepal to build a well and water pump to meet the needs of the students and staff. Girl Scout Troops 1081 and 860 of Westminster, Colo. donated $300 and the students of Pilot Butte Junior High School in Bend, Oreg., pledged $440 to help build the potable water facilities.

—PCV Marcus Hartley, of Salem, Oreg., applied for funds for the Nepalese community of Nanupatti to build a new schoolhouse for grades one through five. Students at The Yale School in Aurora, Colo., donated $600 towards constructing the school.

—PCV Ross Harrer, of Dallas, Tex., applied for funds to equip a language learning laboratory in a high school in Inezgane, Morocco. National Honor Society students of Palm Beach Gardens High School in Palm Beach Gardens, Fla., pledged the full project cost of $1000 to help the Moroccan students learn to speak English.

—PCV Richard Gregory, of Willard, Mo., applied for funds to weatherproof the schoolhouse in Kotaimai, Nepal so that students could attend classes year-round, despite the rainy season. The RPCVs of New Jersey, based in Jersey City, N.J., donated the full project cost of $594 to improve the school building.

—PCV Patricia Donovan, of Roseville, Calif., applied for funds to build a new dormitory in Kilifi township, Kenya so students who don't attend school because they live too far away may be able to study throughout the year. The Mendham High School International Club in Mendham, N.J., donated $200 to purchase materials to construct the dormitory.

Pat Seaman

Over 50? Write RVS

Returned Volunteer Services is conducting research aimed at developing a manual to address the readjustment needs, questions and problems of older Volunteers. If you are 50 years of age, or older, RVS would like to know about you and your Peace Corps assignment. We would especially like to know of your post Peace Corps plans, concerns, goals and needs.

If you have any ideas about what kind of information or assistance RVS could provide, please share them with us. We propose to offer information and contacts regarding Social Security, other volunteer opportunities, information about recruiting for Peace Corps and job hunting for the "over 50." What else would you like us to focus on?

If you have attended a Completion of Service Conference, your comments regarding it would also be appreciated. Did it address your needs as an older PCV? What could have been changed or added to improve it?

Any ideas you have will be helpful. They will not only help us but will help future Volunteers. All letters will be held in the strictest confidence. Write to: Robert Condry, Career Counselor, Returned Volunteer Services-M-907, Peace Corps, Washington, D.C. 20526.

Robert Condry

A Glove And A Hand

"A glove and a hand!"

That's how Sam Harle, Peace Corps Volunteer in Jamaica, describes his successful program of training women in the fundamentals of lithography.

Harle explains, "The United States Agency for International Development (AID) provided the glove; the Peace Corps provided the hand. It's been a cooperative U.S. project and its success would not have been possible with AID funds alone nor Peace Corps hands alone."

Harle, 60 years old, volunteered for the Peace Corps in 1982. With a background of 35 years experience as a Texas weekly newspaper publisher and commercial printer, he was assigned to Operation Friendship in Kingston, Jamaica, to establish a lithography school. The goal was to train young unemployed women in the fundamentals of offset printing.

Operation Friendship is a private, non-profit organization which works with unemployed young people in the economically depressed area of West Kingston; where male unemployment is 50 percent and female, 80 percent.

Prior to Harle's arrival in Jamaica, AID had approved Operation Friendship for a grant of $80,000. The funds were to be used for purchasing printing equipment and supplies to start a lithography school. An 11 × 17 offset press, process camera, light table, dark room equipment, platemaker, power paper cutter, folding machine, stapler and a phototypesetter were purchased from U.S. manufacturers. Also included in the purchase was a year's supply of film, printing plates and paper.

Delivery day was a day to be remembered. A nearby warehouse donated a forklift to unload the equipment. Three pieces of machinery were so large that a section of the concrete building walls had to be removed to get them inside.

According to Harle, as the crates were opened and the machinery exposed the students stared in amazement. They jumped and danced the Reggae, patted the metal frames and exclaimed in Jamaican patois, "Se wha de American sen fe teach we printery."

"The equipment received was all new," Harle states. "I had to install and check out each piece of machinery. It was an exciting period. The few problems I encountered were solved by contacting the equipment manufacturers, who I found not only to be most cooperative but on being informed that I was a Peace Corps Volunteer sent extra accessories and maintenance supplies free to use with their product."

Harle's first class had 14 months of instruction. He was able to place all 10 of the graduates in jobs with private printers. He has increased his second class to 12 students and plans for the third class to number 14.

Harle emphasizes that all his students are women, ages 17–25. He explains, "This was a joint decision by AID and Operation Friendship because there are so few skilled trades open to women in Jamaica. Printing is a trade in which women can excell."

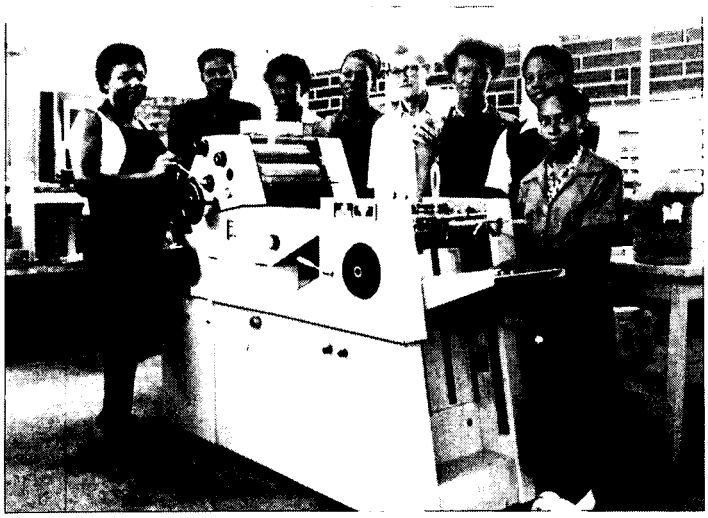
He says he seldom misses an opportunity to remind his students and visitors that the printing equipment was supplied by USAID and that he is there under the aegis of the Peace Corps.

He adds, "All our students and most of the people in this area know that what is being done here has been made possible by the United States in an effort to help Jamaica develop into a prosperous country with employment opportunities.

"I've found my students to be intelligent and appreciative of the opportunity being offered them to learn a skilled trade. Most of them have only the equivalent of an 8th or 9th grade education so I have to give them a crash course in grammar and the mathematics required to work with percentages, decimals, fractions and learning the printing measurements of points and picas," Harle says.

Harle's students call him Uncle Sam. It's a name he says he likes. "They associate me with the real Uncle Sam. I'm teaching their hands to fit the gloves to operate the equipment. It's a satisfying experience for me personally. I know it is helping Jamaica. And, I know it is helping strengthen the good will which Jamaicans hold for the United States."

Harle was the subject of a story recently in the Christian Science Monitor.



Jamaica Volunteer Sam Harle is pictured here with some of his students at his lithography school. They are learning to use the AFG Chief offset printing press.

Two Jamaican students here learn to operate the NuArc process camera under the guidance of PCV Sam Harle. Student at far right holds a flashing light while the other displays the lens filters.

Welcome to the Overseas Computer System

We've been saying, "The computers are coming. The computers are coming." Now, after three major delivery stages over the past couple of months, 21 Peace Corps countries now have fully equipped, ready for use, small, powerful computers. And, by the end of September, 17 more countries will have their especially designed, Peace Corps-specific computer systems.

For Richard "Rex" Costanzo and his talented and skilled staff in the Management Information and Assessment Division, the send-off of these state-of-the-art computer systems is like sending the kids off to school for the first time. Rex and Company created the system.

"We not only put the hardware together, but also the software—the information which goes into it," Rex says. "It's more than just sending out a computer. It's setting up an entire information system which will substantially change how Peace Corps posts are managed. As time goes on, the system will become even more capable. Within a year, we'll expand it to meet many financial management needs in overseas posts."

The computers will save time and cut down on red-tape headaches for staff. It will reduce paperwork; standardize the gathering, processing and reporting of information; integrate information activities within a country; and perform as a powerful word processor.

It will do all this with relatively little difficulty because the in-house design team was challenged by and met other tough goals: providing a comprehensive computer system which would be easy to use, require minimal training, produce many useful reports and guarantee the consistency of those reports.

One caution: As with all computers, these must be maintained with care. The hands-on manual will instruct proper set up, maintenance and security. In the event of breakdown, there are options. First, follow the troubleshooting section in the manual. Second, locate an in-country computer service center or, third, return the broken component to Washington and a replacement will be, simultaneously, sent to the post.

"But," Rex assures, "each unit has been tested extensively to ensure reliability. If users follow the manual and take care of these systems, problems should be minimal."

So, to borrow the greeting from the new Peace Corps computers, "Welcome to the overseas computer system!"

Sherrod Shim

Bringing The World Back Home

"Bringing the World Back Home" is the motto of the National Council of Returned Peace Corps Volunteers (NCRPCV). Organized in 1979 by returned Peace Corps Volunteers (RPCVs), the NCRPCV has as two of its main goals forming a national network of RPCVs and educating Americans about the Third World.

What does this have to do with you, a Volunteer serving in the field? Well, eventually you too will become an RPCV, and you are likely to want to share your experience with understanding Americans. You will hopefully want to become active in development education on your own or through a local RPCV group.

Development education is a term used mainly by those in the business which means educating people about the development needs of the Third World.

The time to start preparing for your role in development education is not after your return, but right there, where you are, right now.

NOW is the time to begin collecting artifacts, not just beautiful wall hangings or weavings but also typical artifacts (utensils, tools, etc.) that show the particular customs and lifestyles of the people with whom you are sharing your life.

NOW is the time to take pictures and movies, to make sketches, not just of the village you live in but also the people that have become a part of your life and work in the great adventure you are experiencing, as they work, play, talk and laugh.

NOW is the time to record local music, sounds and discussions you have with others and yourself about your impressions, reactions and interactions.

NOW is the time to start sharing all this with the people back home, by writing your church, your schools, your organizations.

During your service, you need to remember that there is a third goal of the Peace Corps—to promote a better understanding of other people on the part of Americans. Many of us wish that, as part of our training, we had been told how important our role as development educators would be once we returned home. Most of us have been involved in development education on a one-to-one basis, or only in small groups. This is an important facet of development education but until now it has been about the only facet of development education most RPCVs have been exposed to. In the past two years, however, this has been changing. Peace Corps is taking some initiatives and RPCVs are realizing that development education is a multi-faceted gem and that they don't have to work by themselves in their efforts.

Recently the Boston Area RPCVs sponsored a conference on "How Americans Learn About the Third World." The NCRPCV co-sponsored the conference in conjunction with our annual general meeting. Now the NCRPCV is focusing its efforts on a national development education project that will involve all interested RPCVs. We will help RPCVs obtain technical assistance materials for individual and group use and will sponsor workshops in areas where there are active local groups and private voluntary organizations so they can compliment one another in their efforts. It is exciting to see this project taking shape. We realize, however, that we need to extend our development education outreach to you, the Volunteer currently in the field, so you can more effectively "bring the world home." We encourage your involvement, starting right now and culminating with active participation in the development education efforts of the NCRPCV and local RPCV groups when you return home.

Write to us now with your ideas and requests—NCRPCV, Box 1404, Omaha, NE 68101 USA. We look forward to hearing from you and hope to be sharing articles with you in the future.

Margaret Riley
President, NCRPCV

ICE ALMANAC September/October 1984

From The Field

Rammed Earth Housing/Ecuador

The following article was contributed by recently returned PCV Keith Kline of Ecuador.

Rammed earth housing is common in many parts of Latin America where appropriate soils are available. The technique consists of packing damp earth into a form to construct stationary wall sections. The form is removed and the process repeated to complete walls of a desired height and configuration.

The size of the form varies depending upon tradition, soil composition and the structure's intended use. Forms are often two meters or more long, over a meter high, and from 45–100 cm wide.

Rammed earth construction is fast and cheap. It is also considered to be one of the most vulnerable and dangerous traditional housing materials found in earthquake-prone areas.

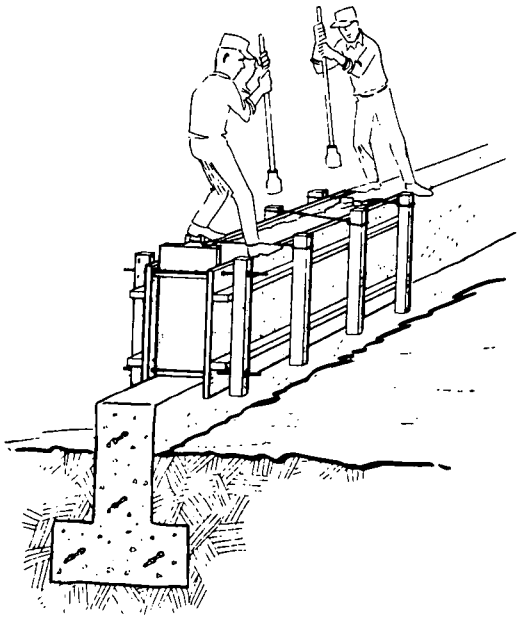
In the province of Imbabura, Ecuador, rammed earth—or tapia as it is locally called—has provided shelter for generations. It is a predominant building material in many of the rural areas in the province and local residents expect that tapia will remain prevalent for years to come. A number of factors support this expectation:

- Tapia is the traditional building material of the rural population which is largely indigenous. Its use is supported by social customs such as the communal work effort or "minga" (The "minga familiar" usually includes the extended family, close friends and neighbors. It is a common part of tapia home construction which often involves 10–15 people.)
- The cost of construction using fired bricks and cement blocks puts these materials out of reach of the poor. Local builders estimate that brick or block constructions cost four or five times more than a similar tapia construction.
- Some wealthy indigenous leaders who could afford block housing believe that tapia should be preserved and promoted as a part of their culture. This attitude was expressed in the Otavalo area where textiles have made people both wealthy and more aware of their heritage.
- The making of adobe bricks and their use in construction requires different skills, more expense and much more time than tapia.
- Thermal characteristics of tapia homes are better suited to the climate than those of block or brick structures.
- Properly built tapia homes can be extremely durable, lasting over one hundred years. Officials in Ibarra, Ecuador report that a few of the tapia homes which survived the disastrous 1868 earthquake are still standing. Many tapia structures in small towns and haciendas are 50–100 years old and remain in good condition.
- Soils appropriate for tapia abound in many rural areas of the province.

Problems With Tapia

Despite these advantages, the number of new homes built with adobe, fired brick and concrete block is growing while the overall use of tapia is falling, for a number of reasons. In the two major cities (Otavalo and Ibarra), soil is no longer available on site and new constructions are exclusively of brick or block. Homes of these materials are prestigious and are preferred by people in rural areas who want to display their affluence. Block and brick homes are also considered to be more secure against theft. A few small towns are even beginning to prohibit new tapia constructions in their centers.

More importantly, the number of professional tapia builders is decreasing, while the number of masons is growing due to the labor demand for construction in the cities. As it be-



Constructing rammed earth walls using wooden forms, from ICE's Handbook for Building Homes of Earth.

comes more difficult to find professional tapia craftspeople, more tapia buildings are being constructed by the rural poor themselves. The increased involvement of these less-experienced laymen in tapia construction appears to be having a negative impact on the quality of workmanship. There is a growing number of relatively new tapia homes which display serious structural defects.

Three fundamental problems are commonly observed in local tapia structures:

- Nonexistent or incorrectly built fundations (sloping, loose, undermined during wall construction, etc...) leading to cracked, leaning, fallen walls.
- Moisture damage—due to insufficient eaves, foundation problems and lack of stabilizers or covering—weakening and undermining tapia walls.
- Improper soil mixture and compaction, resulting in structural weakness, premature cracking or crumbling.

Even without a major tremor, such construction faults as these are obvious hazards. Other serious problems affecting stability and seismic-resistance of local tapia houses are:

- Building walls too high; two-story homes are common and tapia walls six meters high have been observed;
- Unreinforced load-bearing walls;
- Lack of structural unity—no interlocking between wall segments or wall intersections;
- Complete lack of tie beams and proper connections between walls floors and roof;
- Loose adobe, often unbonded, used to top walls and fill peaks under gable roofs;
- Shed and gable roofs of heavy tile resting directly on tapia walls or loose adobe filler;
- Unframed and unreinforced wall openings;
- Unbalanced structures and irregular building shapes.

These factors all contribute to tapia's high vulnerability to earthquake—induced damage. Can appropriate construction techniques bring tapia's seismic resistance to acceptable levels?

Looking for Solutions

My investigation into tapia began while working on a home design which was to exemplify low-cost, earthquake-resistant construction using tapia. Reviewing available literature and talking to architect-engineers, I quickly discovered that the only advice offered concerning tapia and seismic-resistance was: "highly vulnerable—not recommended." Two alternatives existed: a) demonstrate seismic-resistant construction using other materials such as reinforced adobe, or b) try to develop earthquake-resistant techniques for tapia.

For a reinforced adobe demonstration to be effective, the poor, rural population using tapia would have to switch to adobe. This would require large-scale training in adobe-making and use, as well as the methods of reinforcement. It would also demand a change in long-standing tradition. It seemed that such a change would be very slow and difficult, if not impossible to achieve.

An investigation therefore began into how local tapia construction might be made more seismic-resistant. But I felt this initial approach was wrong. I determined I should not decide how to improve tapia constructions or whether tapia is more appropriate than adobe or other materials. These decisions should be made by the people who are expected to use the new technology—the rural poor. Technical assistance is essential to facilitate the identification of alternatives and their respective seismic characteristics, but the users should make the choices.

Involving Users

In order to involve users in this decision-making, informal discussions were held with local leaders, builders and residents in areas where tapia housing prevails. These proved to be very rewarding.

There was consensus that tapia would continue to be used extensively by the rural poor. There was also a keen awareness of the fundamental problems of tapia and of some of the other serious problems described earlier.

People were encouraged to discover technical problems for themselves. Local examples and lots of questions were used to draw out peoples' ideas. For example, to help the group discover the need for tie beams:

"Look at the house on the corner," (the frontal wall of the tapia home was separated from the lateral walls). "What might cause that?" (discussion)

"Might tremors do such damage? Why?" (more discussion)

"How could this be prevented?" (ideas)

"How would that (a given idea) work?" (discussion continues)

In this manner, the group became aware of the importance of structural unity, strong bearing walls, etc. The effects of ground shaking on structures and the basic principles behind earthquake-resistant design were eventually discussed and explained in simple terms.

People quickly started to point out defects in other buildings, including two, new masonry-in-concrete-frame structures. (Materials and workmanship of very poor quality are so common in the area as to raise doubts about the advantages, in terms of seismic-resistance, which masonry constructions might have over *well-built* tapia.) They were eager to show off their new knowledge.

Many ideas which were generated in the group process were basic, such as the need for proper foundations. But the overwhelming number of local tapia constructions where fundamentals had been overlooked indicated that group discussion of these points was important. Basic information on siting, design, foundations, roofs, etc., is not repeated here as it is available from many sources. Less conventional ideas which resulted from the group process follow.

Tapia Vulnerability

Participants were quick to defend the relative stability of *well-built* tapia (while admitting that it was rare), citing examples of ancient structures "that you can't pound a nail into," and noting that local concrete blocks were often fragile and poorly laid. It was felt that all buildings are vulnerable to earthquakes, especially the prevailing, poorly built, tapia structures, and there was not much that one could do about it.

A man whose relatives survived the 1949 Ambato earthquake related that most deaths in tapia homes were caused by suffocation, not crushing as is commonly believed. Tapia walls tended to crumble and/or fall outward, rather than inward onto the occupants. The roof, descending with the wall, trapped occupants in a small, enclosed space with dust and rubble. (A local historian of Ibarra supports

this view.) Remedies might include the provision of fast, secure, escape routes and separate framing to support roofs.

People attempting quick exits from tapia homes during tremors have panicked upon discovering the door will not open. Doors easily jam for lack of proper framing around doorways. Doorways are excavated out from under timber lintels after walls are finished. They typically receive no reinforcement.

Tapia's vulnerability to thieves was a much more real and pressing concern than earthquakes. Although tremors are common, no earthquake had caused local damage for over one hundred years. But in 1980, tapia homes suffered a rash of burglaries by burrowing robbers.

Reducing Vulnerability

Fundamental guidelines concerning foundations, soil mixtures, compaction, moisture avoidance, etc., clearly need to be understood and followed by self-help builders as well as professionals to reverse the trend of building tapia homes of diminishing quality.

Reinforcement of tapia walls to make them burglar-proof was next in importance to participants. One innovative resident had already built barbed wire into the walls of his tapia home at 20 cm intervals for this purpose. Another suggestion was to make the tapia harder by mixing other ingredients into the soil, such as cement or sugar-water along with pieces of tile, gravel, etc. People were interested in knowing more about materials which could harden and stabilize tapia walls.

Nothing is regularly mixed into the soil of present tapia, although older walls appear to have been reinforced with straw, tile shards and gravel. Sugar-water ("agua dulce"), made from crude sugar ("panela") dissolved in water, is often used to strengthen the mud plaster in local ovens.

One person remarked that reinforced walls might be made thinner. This idea was popular as the group held that a major drawback of tapia was the wall thickness (60–90 cm) which limited interior living space. If reinforcement could reduce this, they were in favor of the idea.

The common "A-shape" house design was considered appropriate for the climate and peoples' needs. The front room, usually facing public access, is used for storing valuables and sleeping. The back room, which normally opens to the owner's property, is the primary living area where cooking, eating, working, entertaining and often sleeping take place. In many poor homes, doors only exist on the public side. Other doorways are covered with plastic or fabric, or left open. Windows are rare. This home design generally permits quick, unobstructed escape in the event of an earthquake.

Ideas for improving the earthquake-resistance of tapia which were also discussed:

- Use of barbed wire to interlock wall segments.
- Use of iron rods imbedded in tapia to improve connections between walls, floors and roofs.
- Use of timber tie beams.
- Reinforced door frames.
- Possibility of letting walls move independently by *not* interconnecting corner sections, but leaving room for play or utilizing vertical timber slip-plates at the corner joints—to reduce tremor damage.
- Possibility of using post frame and tapia infill: reinforced concrete or wooden columns to support the roof and thin, reinforced tapia, non-bearing walls. The cost of this alternative was regarded as prohibitive for the poor.

A cautionary note: These ideas have not been field-tested. Their validity cannot be guaranteed. Tapia cannot be made "earthquake-proof." Physical characteristics make it inherently more dangerous than lighter, more flexible materials.

Conclusions

Ignoring tapia, or simply labeling it "unrecommended," will not stop the rural poor from using this traditional construction material in earthquake-prone areas.

Appropriate techniques for improving tapia or suitable alternatives need to be developed in a process which involves users. Responding to user's needs is indespensible for social acceptance and effective dissemination. In the Otavalo area, for example, diffusion could be enhanced by promoting seismic-resistant tapia construction techniques as "more space efficient" (thinner) and "burglar resistant."

If self-help builders and professionals employed fundamental guidelines concerning foundations, mixes and moisture protection, the stability of local tapia constructions could be significantly improved.

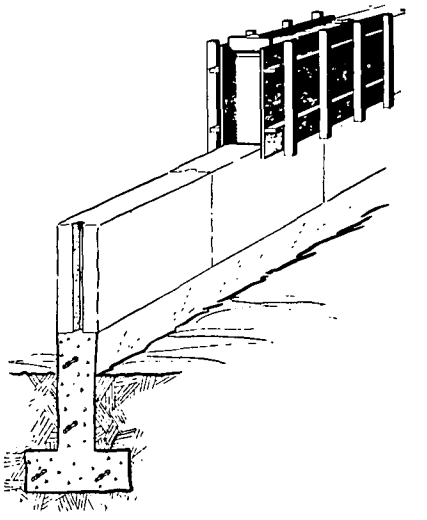
More research is needed to separate tapia myths from facts:

- Why are some tapia structures so durable?
- What is the relative importance of:
  —soil grade and composition?
  —compaction practices?
  —curing conditions?
  —reinforcing materials and stabilizers (straw, barbed wire, iron, cement, lime, "agua dulce," asphalt)?

Investigation is also required to determine:

- Recommended wall thicknesses for different soil mixes and reinforcing arrangements.
- Viability of post-frame and tapia infill.
- Seismic characteristics of "independent wall" tapia structures.
- Relative seismic-resistance of tapia constructions which employ different techniques, and how they compare to alternatives. What is essential for different levels of resistance?

Research by expert earthquake engineers and the study of tapia performance under field conditions is lacking. More information must be collected and shared to provide a solid data base on the technical design limits of tapia constructions. This data is vital to the establishment of earthquake-resistant guidelines for tapia which are appropriate to local conditions.



Constructing rammed earth walls using wooden forms, from ICE's Handbook for Building Homes of Earth.

Feature

Help for Small Projects: A SPA Update

Few small communities in developing countries have the resources to undertake development projects without some assistance from outside the village. Yet in many cases the need for assistance is relatively small—too small, in fact, for major donor agencies to meet.

Peace Corps Volunteers are frequently confronted with this problem and spend endless hours trying to link up their communities with appropriate sources of funding. Too often the process of locating, applying for and getting approval for funding for smaller projects takes so long, communities become discouraged and lose interest or the Volunteers themselves complete service before the project is finished.

In January, 1983, the Agency for International Development and the Peace Corps launched a joint program to help solve this common problem. The two-year, $4 million agreement between Peace Corps and AID provides both funding and technical assistance for small community projects in those countries where both agencies operate.

A major part of the agreement—the Small Project Assistance program—allocates $40,000 per year to each country to spend on community projects identified by Peace Corps Volunteers. Projects which qualify for SPA funding must fall within the broadly-defined areas of food, energy, small enterprise development or income generation and meet several simple criteria (see box). Approval of projects is the responsibility of the Peace Corps Director in-country.

The SPA program has chalked up an impressive record in its first 15 months of operation. Thirty-two countries participated in the program in this initial period; 216 proposals were funded for a total of over $586,000.

A few of the many Volunteer projects supported by SPA funds are described in the accompanying article. They range from a coop grocery store in Paraguay to a rural education center in Swaziland. Roughly half of the SPA monies have gone to support "primary" Volunteer activities; half have been in support of "secondary" projects undertaken by Volunteers in addition to their formally assigned duties.

Volunteer projects under the SPA program have received an added boost with technical assistance provided in a second part of the AID/PC agreement. Under a special Participating Agency Service Agreement (PASA), AID provides Peace Corps with $395,000 per year to deliver programming and training assistance to the field to back up the Volunteers and communities working on SPA projects.

Peace Corps' Office of Training and Program Support (OTAPS) is responsible for managing this Technical Assistance PASA. Within OTAPS, SPA Coordinator Ada Jo Mann heads up the PASA-funded effort to organize on-site consultancies, inservice training programs and conferences in support of the SPA program.

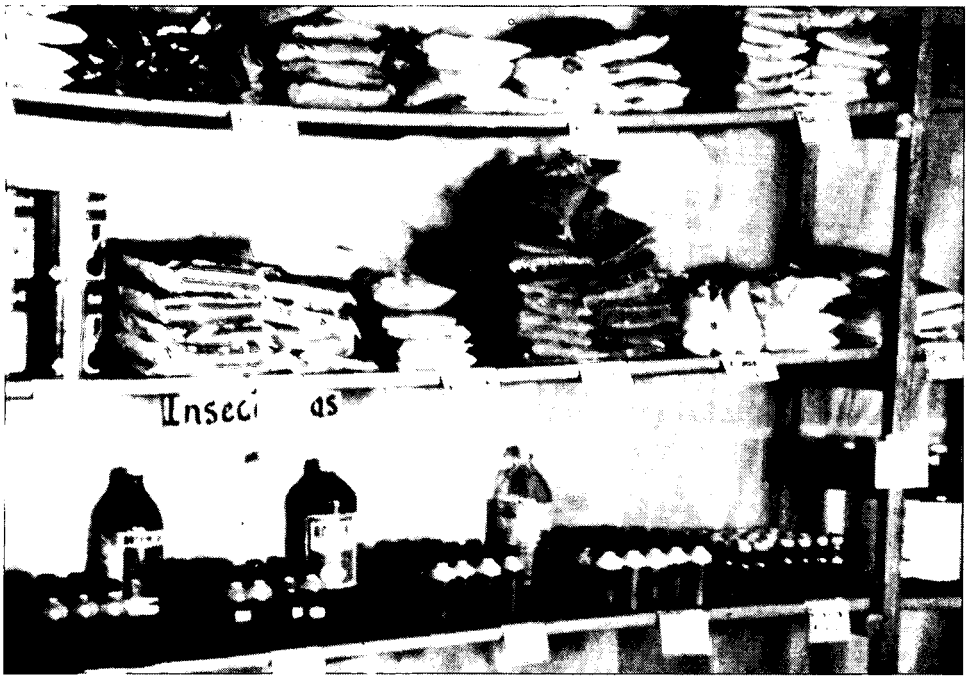
In the first year of the program, technical consultants visited Volunteer projects in 18 countries. Their role was to assist Peace Corps staff, Volunteers and community members in identifying and defining village projects that have potential for funding through the SPA program.

Consultants also provide direct technical advice to help project participants plan and carry out their projects. In Lesotho, for example, a technical consultant assisted Volunteers in the identification of appropriate sites for small irrigation dams. In Morocco, PASA funds financed on-site technical assistance to a women's cooperative.

PASA funds also provide for technical assistance through inservice training (IST) programs in a variety of technical areas. These training programs can function to transfer skills which will enable participants either to complete a specific project or to design a new small project to meet a perceived community need. Both Volunteers and their host country counterparts can participate in these one-or two-week workshops, some of which are held on a subregional basis to allow Volunteers and their counterparts from nearby countries to attend.

Technical Assistance PASA funds cover such costs as consultant travel and salaries, conference costs, host country participation and materials for training. In all, 17 training programs received TA PASA assistance in the first year of the program, including a three-week irrigation IST in Mali; food preservation ISTs in

(continued on page 18)



This cooperative store in Ecuador, built with SPA funds and contributions from local farmers, supplies essential agricultural goods like fertilizers and pesticides.

Feature

SPA: Report from the Field

The following accounts, written by Volunteers as part of their reporting responsibility for SPA funding, describe a few of the many uses PCVs have found for SPA monies.

Ekuphakamoni R.E.C. Knitting Machines/Swaziland
PCV Coordinator: Mark Meassick
Amount: $2,625

On April 4, 1984, the Ekuphakamoni Rural Education Centre in Swaziland received $2,625 dollars to buy four Singer knitting machines. The machines were installed shortly thereafter, replacing old models which were no longer functioning properly because of overuse.

The new models were different from the old machines that the women were accustomed to using. It was necessary to recruit an instructor to teach the techniques of using the new machines. Mrs. Thwala, the manageress of the Mahlangetsha Women in Development Centre donated her time and spent two full days instructing the women in the proper use and care of the machines. In fact, she also taught the women new skills, such as using the card stitches, the knitting of skirts, etc.

There are approximately 15 women who currently make use of the machines, and three more under instruction. Significantly, a machine fund has been started so that the women can purchase new machines in the future and repair the machines with their own resources. A surcharge of 30 cents per garment woven (about five percent of their profit) was agreed upon. Well over 100 garments have been knitted—very good considering that this time frame falls during harvest time.

This project is ultimately responsible for the resurgent interest in the R.E.C. program. Morale was low with the old and inadequate machines causing more frustration than enthusiasm. Now the women are demanding more training in knitting skills, as well as to learn other skills to help them generate and supplement their incomes. The R.E.C. itself has generated more income as well due to the increase in wool sales which has allowed for additional training of women in sewing and sisal weaving.

Forest Extension/Costa Rica
PCV Coordinator: Jill Muller
Amount: $10,000

Using the help available from USAID Small Project Assistance funds, a small tree nursery was established on the grounds of the agricultural high school. While growing trees, students learn about the need for reforestation and proper land management. It is hoped that the planted seedlings will eventually provide forest products such as firewood, construction timber, and forage to satisfy the needs of the community. Fruit trees will give a more immediate return.

At this time the nursery contains 6000 trees with projected 1984 production estimated at 40,000—an amount sufficient to reforest 30 hectares. The forest species being grown are teak, leucaena, pochote, and cedro amargo. Fruit tree species include grafted mango, grafted orange, and maranon, for which a processing plant is now under construction. Planned extension nurseries in selected areas will increase the availability of seedlings to individuals and groups that demonstrate interest.

The recently formed forestry committee acts as a supervisory board to oversee nursery operations and identify and respond to local environmental problems. With the committee's guidance the public should become more aware of the situation in the district. The project is still in the initial stages and much is yet to be done, but the future looks promising.

Pejupa Molasses Factory/Paraguay
PCV Coordinator: James Cranney
Amount: $10,000

On December 17, 1983, the final barrel of molasses of the Pejupa Molasses Factory for the 1983 harvest was produced. Production will begin again in May of 1984.

The basic purpose of the molasses factory is to offer greater economic opportunities to the community of Pejupa. This general purpose can be translated into more specific objectives, such as increased income, more regular yearly income distribution, increased land values, and less dependance upon the traditional cash crops of cotton and tobacco.

The project also meets more basic community needs by providing a malnourished community with ample quantities of iron-rich molasses. Also, major activities, i.e., harvesting and processing cane in the factory, come at a time of year when most farmers are idle by tradition. This unused time is converted into productive, income-generating activity.

When evaluating the results of the project in the light of the original goals and objectives, one must conclude that the project has been an unqualified success. The incomes of the project participants increased, and this income was enjoyed during a time of traditional cash scarcity. Land values increased as expected. Nearly two million guaranies (US $6,700) were injected into the community, stimulating the local economy significantly. The project is expected to continue successfully through 1984. In fact, a 30 percent increase in sugar cane production is forecast, meaning that both volume of molasses production and incomes should also rise.

Other PCVs working with SPA funds are encouraged to write to ICE about their projects. This view of the SPA program from the field is a vital part of evaluating the results of this joint PC/AID program. And Volunteers working in similar projects around the world will all share in the lessons learned from this experience.

The annotation for *Information Kit for Women in Africa* which appeared in the May/June issue of the ALMANAC neglected to mention the important role of the International Women's Tribune Center in its development and distribution. The Center was integrally involved in the efforts to make this excellent resource available. Limited numbers of copies are still available through the Center (777 United Nations Plaza, New York, NY 10017 USA) to host country women and organizations which assist them. ICE will continue to supply copies of the Kit to Volunteers who would find them useful to their work.

Help for Small Projects: A SPA Update

(continued from page 16)

Belize and Paraguay and a solar hot water systems IST in Morocco.

The PASA funds can be used to support SPA projects in a number of other creative ways. PASA funds allowed a PCV working on a SPA-funded wheelchair production project in Paraguay to attend a special training program in Jamaica.

PASA monies also contributed to the organization of three regional program and training conferences for Peace Corps staff in 1983. The conferences, held in Ecuador, the Philippines and Swaziland, allowed PC staff to build technical programming and training skills in the areas of food production, renewable energy and small enterprise development.

The conferences also provided the first opportunity to PC/Washington and PC/field staff to share experiences and begin to evaluate the field management of the SPA program. Questionnaires distributed at each conference asked field staff to identify the benefits and problems associated with SPA.

The most frequently mentioned benefit of the program was its capacity for funding projects quickly with a minimum amount of required paperwork. A second benefit mentioned often was that the program enabled Volunteers to better meet local needs and thus enhance overall PCV efforts. A related benefit identified was increased involvement of local communities in project activities.

Conference participants also identified a number of problem areas in the SPA program, including the length of time some USAID missions require to disburse funds (from one week in some countries to three months in others); and the lack of technical background required to develop project proposals among PCVs.

These and other problems are being reviewed and analyzed as part of the formal evaluation of the SPA program currently underway. The evaluation, due for completion in January, 1985, is also focussing on the scope and cost-effectiveness of the SPA funding, the quality of technical assistance to the field in support of SPA projects and the value of collaborative programming and funding for both PC and AID.

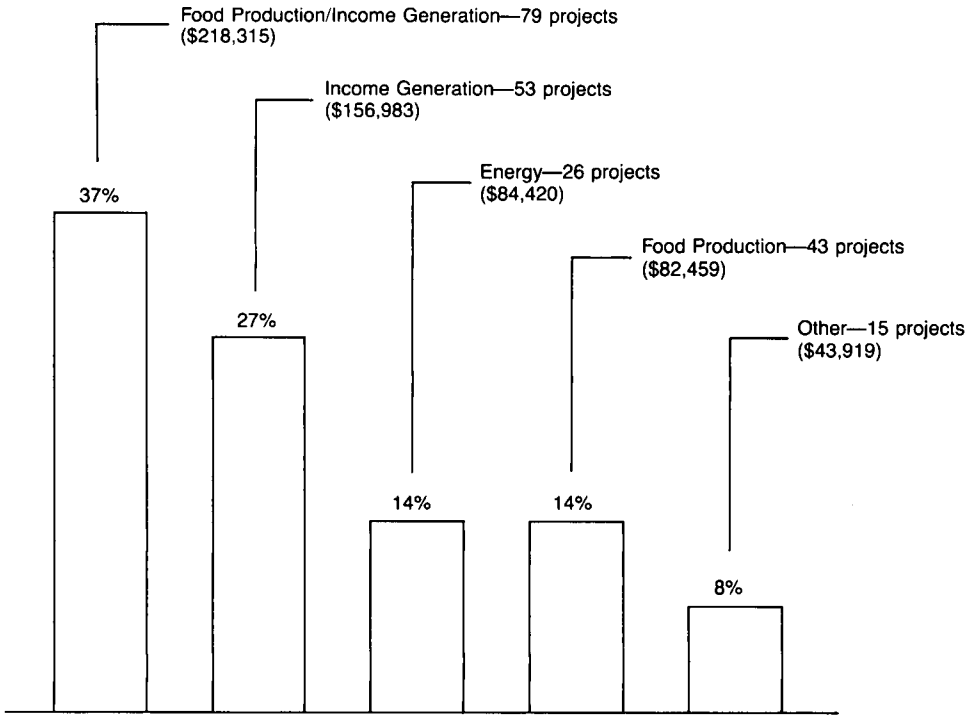
The study also seeks to measure the village-level development impact of the SPA program. Ultimately the study will be used to determine whether the SPA program has fulfilled its original mission, if it should continue and what level of funding should be sustained.

SPA Coordinator Ada Jo Mann is confident the study will confirm the value of the program. "The success of the SPA program speaks for itself," Mann says. "The enthusiasm and interest with which Peace Corps staff, Volunteers and host country participants have endorsed the program has been gratifying.

"It is clear to me that the SPA program is responding to a genuine field need and will prove to be a fruitful union of AID and Peace Corps field resources."

This article was prepared by Donna Frelick and reporter Tracey St. Johns with the assistance of SPA coordinator Ada Jo Mann.

SPA FUNDED ACTIVITIES BY IMPACT AREA



Total Projects Funded: 216

Total Amount Obligated: $586,097

The SPA program sets forth the following criteria for selection of SPA activities:

—The activity must be scheduled for completion within one year of its implementation.

—The estimated contribution of SPA funds toward completion of the activity must not exceed $10,000.

—It must involve development in the broad areas of food, energy, small enterprise development and/or income generation.

—It must not encourage reliance on U.S. assistance. The project must be conceived and implemented in conjunction with a local community organization or group.

Networking

Teaching Materials for Mechanics

The John Deere Company offers a complete series of teaching materials to assist industrial/vocational education instructors, vocational agriculture instructors, mechanics and anyone interested in teaching the fundamentals of machinery operation.

These manuals are comprehensive, easy to understand and fully illustrated and are published in both English and Spanish. Most titles are also available in French.

Howard Opper, currently on the Africa regional office staff, can testify to the usefulness of the materials. While serving in Tunisia as a PCV in the vocational education program and later as APCD in Morocco he used these materials not only as texts but also as tools for curriculum development.

Says Opper, "The Deere materials were my mechanic's Bible while overseas." He recommends them highly for all vocational education trainers or anyone working in auto or agricultural mechanics.

Two major series are available from John Deere: Fundamentals of Service (FOS) and Fundamentals of Machine Operation (FMO). The titles in each of these series are listed below.

FOS

- Hydraulics
- Electrical Systems
- Engines
- Power Trains
- Shop Tools
- Welding
- Belts & Chains
- Bearings & Seals
- Tires & Tracks
- Mowing & Spraying
- Air Conditioning
- Fuels, Lubricants & Coolants
- Fiber Glass
  Fasteners
  Identification of Parts Failures

FMO

- Tractors
  Tillage
  Planting
  Crop Chemicals
- Combine Harvesting
  Preventive Maintenance
  Machinery Management
  Safety

Deere also offers a text called *Machinery Maintenance* that is very basic and contains simple, easy to understand drawings.

Those publications marked with a bullet are available for free distribution to Peace Corps Volunteers and PC resource centers in-country through ICE. Volunteers who wish to inquire regarding purchase of materials for host country nationals or to obtain a catalogue of publications can write directly to:

Service Manager
John Deere Intercontinental Ltd.
909 3rd Avenue
Moline, IL 61265
USA

Instant Slides

There are times when high technology is actually appropriate technology. Such is the case with the new Polaroid Instant Slide System. This system, which works with any standard 35-mm camera, contains a small, low cost, lightweight Polaroid auto processor. The processor allows the photographer to process slide film (full color, continuous tone or high contrast black and white) automatically on the spot without a darkroom or electricity.

The system comes with a slide mounter and plastic slide mounts to complete a set of slides for viewing. Polaroid claims that slides can be shot, processed, mounted and ready to project within five minutes.

The slide system seems to hold great promise for Volunteers in the field who would like to enhance the quality of their group presentations or research in agriculture, health, or forestry with actual views of in-country activities. Often the delay in processing time or the lack of film processing facilities can hamper effective use of photos and slides.

The new Polaroid Instant Slide System includes:

—a compact auto processor
—a convenient slide mounter
—durable plastic slide mounts
—Polachrome CS Color Slide Film in 12- and 36-exposure rolls
—Palapan CT Continuous Tone Black and White Slide Film in 36-exposure rolls
—Polagraph HC High Contrast Black and White Slide Film in 12-exposure rolls
—Each film roll comes with its own processing pack

The entire system can be purchased for under $100.00 (US). The one catch however, is that since the processors are mainly being marketed on a commercial basis the film must be purchased in lots of 20 rolls each.

For more information on this slide system, including current prices and availability, contact these regional distributors directly:

AFRICA
Polaroid, Ltd.
Ashby Road
St. Albins, Hertfordshire AL15PR
England

INTER-AMERICA
Polaroid Corporation
Gables International Plaza
2655 LeJeune Road
Suite 111
Coral Gables, Florida 33134

FAR EAST
Polaroid Singapore, Ltd.
World Trade Center
1 Maritime Square #12-04
Singapore 0409

Kathie Judge, ICE Resource Development Specialist and RPCV/The Philippines, is editor of Networking.

Ask ALMANAC

Training For Development

A large part of development work has to do with transferring skills to farmers, counterparts, mothers or other members of the community. In most cases, Peace Corps Volunteers pass on these skills informally in working and talking with individuals and small groups.

Occasionally, however, Volunteers are called upon to organize formal training courses, workshops or classes for host country development workers or other groups. And, of course, Peace Corps staff and many third-year PCVs are involved in training new Volunteers incountry.

The Office of Training and Program Support (OTAPS), of which ICE is a part, is the headquarters office responsible for providing assistance to the field in the area of training. Members of the OTAPS Training Division and the OTAPS Sector Specialists have produced more than 20 training manuals to help field staff and Volunteers design and carry out training programs in a variety of areas.

All of the manuals incorporate Peace Corps' development philosophy of working on a small-scale, using appropriate technologies and local resources and involving the community in the planning and implementation of development projects. All are based on "experiential" training methods—stressing "hands-on" learning rather than formal lectures.

Some of the manuals are generic, emphasizing skills which all Volunteers/development workers need. Others specifically relate to certain technical skills in agriculture, appropriate technology or other areas.

All of these manuals are available through ICE to PC staff and others involved in the training of Volunteers, as well as Volunteers organizing formal training programs for host country groups. Host country development organizations may also receive single review copies of these manuals free through ICE.

Please remember that these manuals are written specifically to be used by *trainers*. In most cases they cannot be used as field manuals for implementing community projects. ICE has a full range of field manuals on these subjects for that purpose.

GENERIC MANUALS

Cross-Cultural Training for PCVs
Eleven structured, sequential sessions for a total of 20 hours of training. Covers transition from U.S. to country of assignment, entry and fluency skills, information-gathering and resource skills. Designed for use by experienced trainers in pre-service training for PCVs.

The Role of the Volunteer in Development
Ten sequential sessions for a total of nearly 28 hours of training. Covers assumptions in development work, problem analysis, dealing with information, work styles, helping skills, problem-solving, project management, and planning and community entry. Designed for use by experienced trainers in pre-service training for PCVs.

Third World Women: Understanding Their Role in Development
Five sessions highlighting issues concerning Third World women in development projects. Focus is on impact of development on women in the context of the local cultural setting.

Close-of-Service Workshop
Materials and guidelines for a three-day workshop for COSing Volunteers. Covers review of the Volunteer experience, appropriate leave-taking and closure, resumé writing and career planning, and re-entry to U.S.

Personal Health Training Manual
Six sessions designed to help PCVs maintain their own health in a new environment and, when possible, promote "positive health" in their host communities.

Standards for Peace Corps Training; An Integrated Training System; and Trainer's Resource Guide
Three separate documents discuss PC's training philosophy and methodology and provide "helpful hints" for trainers. To be used as background to other PC training materials.

Future manuals in this series will cover techniques for working as a counterpart to others; personal safety in a cross-cultural context and revisions of existing manuals based on several years of use in the field.

TECHNICAL MANUALS

Agriculture

Agricultural Development Workers' Training Manual
Comprehensive guide for planning, designing, and implementing pre-service training in agriculture. Four volume manual provides detailed guidelines for preparation, sample designs for six-or twelve-week programs; session plans; technical guides and handouts. Vol. I Orientation for Trainers; Vol. II Extension Skills; Vol. III Crops; Vol. IV Small Livestock.

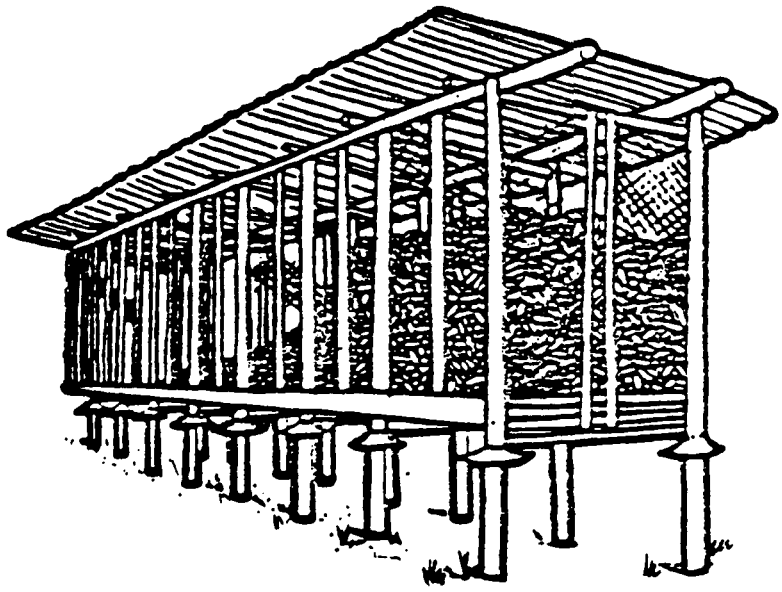
A Manual for Trainers of Small-Scale Beekeeping Development Workers
Guidelines, materials, session plans and recommendations for evaluation for beekeeping skill training. Covers basic bee management and biology and construction of intermediate technology hives, swarm boxes, honey extractors, etc.

AT/Energy

A Training Manual for Appropriate Community Technology
Presents detailed session designs for training of development workers in these areas: earthen construction and fuel-saving cookstoves; pedal/treadle power; solar water heaters; solar agricultural dryers; health and nutrition; the role of the Volunteer in development.

A Training Manual in Conducting a Workshop in the Design, Construction, Operation, Maintenance and Repair of Hydrams
Detailed session designs and handouts for training development workers in hydraulic ram technology for pumping water.

Basic Techniques of Blacksmithing
Detailed session designs and handouts for a one-week program for developing basic blacksmithing skills and the production of simple agricultural tools.



Improved Food Drying and Storage Training Manual
Guidelines and materials for a one- or two-week program in food preservation by drying and storage of food crops. Particularly relevant to drying and storage of grain.

Solar and Energy-Conserving Food Technologies: A Training Manual
Guidelines and material for an inservice training program in solar drying of fruits, vegetables, meat, fish and herbs, construction of dryers and use of fueless cookers.

Small-Scale Charcoal Making: A Manual for Trainers
Detailed session designs and handouts for a one-week training program in improved charcoal production techniques.

Small-Scale Irrigation Systems: A Training Manual
Guidelines and materials for a two-week inservice training program in planning, construction, operation and maintenance of small-scale irrigation systems. Covers soils, surveying, measuring water flow and other elements of design and construction. Suitable for development workers in agriculture, AT and community development as well as water/sanitation.

Disaster Preparedness

Disasters and Development
Materials and guidelines for training Volunteers in how natural disasters affect development, taking appropriate action during an emergency and integrating activities which can mitigate the effects of future disasters into their primary assignments. Can be used in pre-service or inservice training.

Fisheries

Small-Scale Marine Fisheries: An Extension Training Manual
Comprehensive manual for preservice training of marine fisheries extension workers. Covers outboard and diesel engines; fishing gear and techniques; extension; fish processing and marketing; navigation; boat repair and construction; the role of the Volunteer in development.

Forestry

Forestry Training Manual: Inter-America Region; Forestry Training Manual: Africa
Materials and guidelines for preservice training of forestry extension workers in each of these regions. Emphasis is on "hands-on" forest technology for trainees who have already had cross-cultural and language training in the host country. Can be used for single-country or multicountry groups.

Agroforestry In-Service Training: A Training Aid for Asia and the Pacific Islands
Guidelines and materials for a one-week workshop in agroforestry, with special reference to Asia and the Pacific. Covers techniques and appropriate tree species for agroforestry projects. Can be used with both agricultural and forestry workers.

Water/Sanitation

A Workshop Design for Latrine Construction
Prepared by AID's Water and Sanitation for Health Project (WASH). Guidelines and materials for a two-week program combining latrine construction and community development/communication skills. For use in training development workers in water/sanitation, health and community development.

A Workshop Design for Rainwater Roof Catchment Systems
Prepared by AID's Water and Sanitation for Health Project (WASH). Guidelines and materials for a two-week program combining skills in designing and constructing roof catchment systems for wet or dry areas and community development/communications skills.

Other

New technical manuals for a variety of program areas are now being prepared, including a newly revised Technical Health Training Manual, incorporating health education and Control of Childhood Communicable Diseases project areas; a wind systems training manual; and an inservice manual for small enterprise.

OTHER RESOURCES FOR TRAINERS

A number of other publications to support training activities are available through ICE. These are not comprehensive training manuals, but serve as useful reference books for trainers. They are:

- *From the Field: Participatory Activities for Trainers*
- *Trainer's Guide to Andragogy*
- *Demystifying Evaluation*
- *PC Rider (motocycle safety and maintenance)*
- *Maintaining Motorcycles*

Sector Updates

Agriculture

Important Honey Plants of the Tropics, U.S. Department of Agriculture. 1978 (ICE reprint, 1983) 151 pp. Free.

A book to help familiarize the beekeeper with some of the most common species of honey plants. Lists 82 species of floral and forest nectar sources from the tropical and subtropical regions of the world. Distinctive plant features, flower and type of honey are described for each species. A full-page illustration accompanies each plant.

Available free through ICE to all PCVs and staff.

Report and Recommendations on Organic Farming, U.S. Department of Agriculture. 1980 (ICE reprint, 1983) 94 pp. Free.

An analysis of case studies which assess and categorize the activities of organic farmers throughout the U.S. The study evaluates the advantages and disadvantages of organic methods for weed control, pest control, water and soil conservation, soil nutrition and crop productivity. Compares productivity rates to nonorganic farming methods.

Available free through ICE to all PCVs and staff.

AT/Energy

Chinese Biogas Digester, by PCV Charles Nakagawa. 1981 (Peace Corps Information Collection and Exchange, 806 Connecticut Ave. N.W., Washington, D.C. 20526) 87 pp. Free.

A step-by-step guide for the construction and operation of a small-scale, family-size Chinese biogas digester adapted by PCV Nakagawa for use in rural Philippines. Manual covers costs, construction and estimated volumes of methane produced. Appendix covers basics of working with concrete and masonry. Many illustrations and mathematical formulas included.

Available free through ICE to all PCVs and staff.

The Complete Guide To Blacksmithing, by A. Lungwitz. 1981 (Crown Publishers, Inc., 1 Park Ave., New York, NY 10016) 222 pp. $4.95.

A useful book for those who are working with iron. Describes in detail the method, tools and equipment used in blacksmithing as well as the operations involved in forging. Covers all aspects of horseshoeing and gives methods for carriage and wagon building. Techniques can be applied to construction of a variety of metal objects.

Available free through ICE to all PCVs and staff working in related projects.

Fundamentals of Solar Heating, by Richard Schubert and L. D. Ryan. 1981 (Prentice-Hall, Inc., Englewood Cliffs, New Jersey 07632) 319 pp. $23.95.

Explains the fundamentals of solar energy and its practical applications in producing heat. Organized as a textbook, concentration is on residential space and hot water heating. Topics covered include: a brief history of the energy field and related economics; solar insulation; flat-plate collectors; storage and distribution for solar systems. Study exercises are listed at the end of each chapter.

Available free through ICE in limited supply to PC offices/resource centers incountry only.

Windpower Principals, by N.G. Calvert. 1981 (Charles Griffin & Co. Ltd, Crenden St., High Wycombe, Bucks HP 13 GLE, England) 122 pp. $11.25.

A book written to accommodate the engineer as well as the amateur. Reviews essentials of fluid mechanics and properties of the aerofoil. Reviews many types of windmills with particular attention to the sail mill. Gives estimates on expected energy return for different wind power designs. Author does not give details of mechanical design, but gives theoretical guidance for those with an engineering background.

Available free through ICE to PCVs and staff working in related projects.

Education

The New Games Book, edited by Andrew Fluegelman. 1976 (New Games Foundation; P.O. Box 7901, San Francisco, CA 94120) 192 pp. $7.95.

Presented as an alternative to competitive athletics, describes games that encourage participation and creative use of energy. Argues that games are to be played for fun and viewed as an opportunity to share with others. Gives directions for games that require moderate or active exercise and can be played with a few or up to two dozen people. All ages can participate, with little or no equipment required.

Available free through ICE to PC offices/resource centers incountry only; two copies per country.

The Unfinished Assignment: Equal Education for Women, by Patricia L. McGrath. 1976 (Worldwatch Institute, 1776 Massachusetts Ave., NW, Washington, DC 20036) 47 pp. $2.00.

An historical overview of women's participation in and exclusion from traditional education. Reviews status of educational opportunities for Third World women in primary, secondary and university settings. Concludes with proposals to overcome inequities.

Available free through ICE to PCVs and staff working in related projects.

Fisheries

Appropriate Technology for Alternative Energy Sources in Fisheries, edited by R.C. May, I.R. Smith & D.B. Thomson. 1982 (ICLARM, P.O. Box 1501, Makati Manila, Philippines) 215 pp. $15.00.

Reports and keynote speeches from a workshop that focused on low-cost fuel alternatives for the small-scale fisheries industry in the Asia-Pacific region. Areas investigated include: sail power to replace or augment diesel fuel; low-cost, labor-intensive boat construction techniques for the tropics; solar drying methods for fish; wind power and biomass for fish processing. Includes many technical drawings and mathematical formulas for boat construction.

Available free through ICE to PC offices/resource centers incountry only; two copies per country.

Textbook of Fish Culture, by Marcel Huet. 1970 (Fishing News Books Ltd., 23 Rosemont Ave, West Byfeet, Surrey, England) 436 pp. $31.50.

A textbook useful for the specialist and generalist alike. Covers fish breeding and cultivation all over the world. Book divided into four sections; ponds and fish suitable for cultivation (includes design and layout of ponds); principal techniques and methods of breeding and raising fish (includes chapter on rice-fish culture and cultivation of tilapias); stock control and methods to increase productivity; crop and harvesting methods. Well illustrated.

Available free through ICE to PC offices/resource centers incountry only; two copies per country.

Forestry

Firewood Crops, Vol. 2, a Report of an Ad Hoc Panel of the Advisory Committee on Technology Innovation. 1983 (National Research Council, 2101 Constitution Ave., Washington, DC 20418) 92 pp. Free.

A study, the second of two volumes, concerned with establishing replenishable sources of fuelwood. Emphasis is on species suitable for growing firewood for individual family needs. Most plants reviewed are not known in traditional forestry production. Fuelwood species are listed for the humid tropics, tropical highlands, arid and semiarid regions. Species are described by distribution, use as firewood, planting requirements and pest and disease control. Bibliography and research contacts included.

Available free through ICE to all PCVs and staff working in related projects.

Conservation in Arid and Semi-Arid Zones, FAO. 1976 (UNIPUB, P.O. Box 433, Murray Hill Station, New York, NY 10016) 125 pp. $9.75.

A collection of articles covering conservation techniques. Includes examples from both arid and semi-arid areas. Emphasizes forestry and range management in developing countries.

Available to all PCVs and staff working in related projects.

Forestry for Local Community Development, FAO. 1978 (UNIPUB, P.O. Box 433, Murray Hill Station, New York, NY 10016) 114 pp. $8.75.

A discussion of "people-oriented" forestry. Outlines rural wood-dependence, describes potential project problems and suggests solutions which benefit poor communities in developing countries.

Available to all PCVs and staff working in related projects.

Health

Where There Is No Dentist, by Murray Dickson. 1983 (The Hesperian Foundation, P.O. Box 1692, Palo Alto, CA 94302) 188 pp. $4.50.

Designed as a self-help teaching manual for health care providers with no dentistry background. Promotes dental care as an important part of primary health care. The book is divided into two sections. The first reviews basic dentistry concepts for teeth and gum care. Includes methods for teaching dental care in rural villages. Second half of book gives step-by-step instructions on how to identify and treat common dental problems such as cavities and gum diseases.

Available free through ICE to all PCVs and staff working in related projects.

Ferrocement Applications in Developing Countries, National Research Council. 1973 (ICE reprint, 1983) 91 pp. Free.

An analysis of the properties, characteristics and potential of ferrocement as a building material in Third World countries. Evaluates current usage in such fields as boat-building and silo construction and identifies new applications in areas of roofing and food-processing equipment. Written in clear, simple language for use by the lay person.

Available free through ICE to all PCVs and staff working in related projects.

SED

Handicrafts: Marketing In The Eighties, prepared by the National Planning Association for AID (ICE reprint, 1983) 12 pp. Free.

A review and critique of the marketing procedures used to promote Third World crafts over the last fifteen years. Explains the decline in the industry in that period and gives guidelines for successful marketing strategy.

Available free through ICE to all PCVs and staff working in related projects.

(continued on page 24)

Publications listed as "available through ICE" are free to PCVs and staff according to the distribution policy indicated for each title. For the benefit of our non-Peace Corps readers, complete ordering information has been provided for all titles.

PCVs and staff may order ICE publications by letter or cable from: Peace Corps Information Collection and Exchange, Rm M-701, 806 Connecticut Avenue N.W., Washington, D.C. 20526 USA.

Please note: additional copies of limited-distribution titles and materials which are listed as "not currently available from ICE" must be purchased directly from the publisher using incountry funds. PCVs should contact their incountry staff regarding assistance in making these work-related purchases.

Sector Updates

(continued from page 23)

Handicrafts: A Case of Promotion, prepared by The National Planning Association for AID. (ICE reprint, 1983) 10 pp. Free.

Reviews the successful marketing strategy of a Kenyan wood carving co-operative. Includes cost/risk analysis and explains entrance into the U.S. market.

Available free through ICE to all PCVs and staff working in related projects.

Water/Sanitation

A Model For The Development Of A Self-Help Water Supply Program, by Colin Glennie. 1982 (World Bank, 1818 H Street, NW, Washington, DC 20433) 47 pp. $3.00.

A compilation of working papers on rural water and santitation projects gathered over ten years of programming experience. Presents a model, in four phases, for project planning and implementation. Lists objectives and goals to be accomplished in each phase. Includes criteria to determine optimal size of project and defines essential conditions for community participation if self-help project is to be successful. References and list for additional readings included.

Available free through ICE to all PCVs and staff working in water/sanitation.

Bamboo-Reinforced Concrete Rainwater Collection Tanks, by Thomas B. Frick. 1982 (A.T. International, 1724 Massachusetts Ave., Washington, DC 20036) 50 pp. Free

A working paper that reviews the Rainwater Collection and Storage project in northeastern Thailand in which, since 1947, 5000 storage tanks have been built. Divided into two sections: first analyzes project planning, community financing, host government and cooperating agency participation. Second half reviews technology involved, costs, benefits and problems with collection tanks. Not a construction guide.

Available free through ICE to all PCVs and staff working in related projects.

Rural Water/Sanitation Projects Agency for International Development. 1982. (ICE reprint, 1983) 284 pp. Free.

A well-illustrated selection of over 35 technical fact sheets from the Water For The World Series. Covers such topics as the selection of a water source, gravity flow versus pumps, spring development, hand dug wells, hand pumps, water storage, waste disposal and toilet construction. Each topic is reviewed according to methodology, planning design, construction, operation and maintenance.

Available free through ICE to all PCVs and staff.

WID

Policy Strategies for Women In The 1980s, by Irene Tinker (*Africa Report.*) 6 pp. Free.

A summary of the role women have played in development over the last twenty years. Examines the assumptions and strategies that defined women's involvement in the 1970s and advocates new strategies for the 1980s. Promotes integration of women's issues into the mainstream of development planning.

Available free through ICE in limited supply to all PCVs and staff.

Audiovisual Formats For Development Topics

The Communication Centre of Scientific Knowledge For Self-Reliance (1 Rue Miollis, 75015, Paris, France).

The Centre focuses on knowledge transfer between the scientific research community and the users of scientific information operations. Under the auspices of the UN University and the International Counsel of Scientific Union, this organization designs very simple audiovisual formats which serve as a guide to producing illustrated manuals, flipcharts, photonovels or comic books on common village themes such as water/sanitation and food production. The formats lend themselves to adaptation in the local culture and to a wide variety of uses in community education. Volunteers interested in further information and copies of formats should contact Dr. Yona Friedman at the Centre.

GIVE!

The ICE staff works hard to provide you with the most relevant, up-to-date technical information for your projects. Not surprisingly, the most useful materials we distribute are those which have been developed over the years by Volunteers like you working in agriculture, education, forestry and a host of other areas.

We depend on contributions from PCVs and staff in the field to build our collection of appropriate technical materials. Volunteers contributions are frequently published as how-to manuals. They often appear as articles in the ICE Almanac. And they make up the bulk of the reports, designs, lesson plans and other documents in the ICE Resource Center.

We are vitally interested in the results of your work. Take time to write up your fisheries project or your design for a better appropriate technology mousetrap and send it to ICE. Your fellow PCVs around the world will thank you for it!

The ICE ALMANAC features a variety of Volunteer ideas and technologies which can be adapted locally and highlights particular program areas with notes and recommendations from programming specialists in the Office of Training and Program Support.

Information Collection and Exchange (ICE) is Peace Corps' central technical information unit. As such ICE provides a means of collecting and sharing the best results of Volunteer programs in the field. Volunteers are encouraged to contribute information to the ICE ALMANAC or ICE Resource Center. Contributions, requests for technical information or correspondence concerning the ALMANAC should be sent to: ICE, Peace Corps, Rm. M-701, 806 Connecticut Ave. N.W., Washington, D.C. 20526.

Donna S. Frelick, RPCV/The Gambia and coordinator of ICE, is ICE ALMANAC editor. Special assistance for this issue was provided by the marvelous OTAPS Support Staff.