

PEACE CORPS TIMES



From the Director

A few weeks ago the nation celebrated National Volunteer Week. And, as you know, three Peace Corps Volunteers came to Washington to represent you and their respective Regions in a round of activities. I wish it were possible to shower each and every one of you with the recognition and laurels for the work you are doing. What I can do in this column is share some of the letters I receive about you.

Recently I received a letter from a parent of a PCV serving in Morocco, who sat in on part of an All-Volunteer Conference. In his letter he said...

"They (PCVs) are an exceptional group of Americans and I only wish that their number could be increased tenfold to represent our country in every corner of the world. The enthusiasm for their tasks and esprit de corps that they evidence are reminiscent of the same kind of spirit found in the shadow of the Golden Dome on the campus of Notre Dame. And that is perhaps the highest compliment I can pay to a great group of young Americans.

When our son graduated from Notre Dame last May, we had some misgivings when he advised us of his intention to join Peace Corps. After returning from Morocco, we clearly understand why he chose Peace Corps service."

Another letter came from a businessman and former Colonel in the United States Army.

"Having recently returned from a business trip to Sierra Leone, West Africa, I want to pass on my very close and personal observation of a contingent of our Peace Corps Volunteers in the Northern Province Sector of the country, specifically in the Kabala area.

To tell you how proud I was and with a feeling of much self-satisfaction with these stalwart young men and women, would be putting it mildly. I have never seen such sacrifice as they endure. I have never seen such excitement, enthusiasm and dedication in getting a job done well. And, I should know. I had command of hundreds and thousands of young volunteers back in the days when we had Civilian Conservation Corps camps.

What particularly stands out for me was the beautiful image they were portraying to the West Africans of what America is all about."

One small word in this last letter really made an impression on me. It was when this retired career military man referred to you as "our" Peace Corps Volunteers.

I know that your hosts in-country often refer to the Peace Corps Volunteer they know as "my Peace Corps," but now you are being known throughout the United States as "our" Peace Corps. The one-on-one contact that the 120,000 Volunteers have had with their fellow citizens has brought this new personal relationship into being. When people,

outside of our immediate Peace Corps "family" of relatives, friends, other PCVs and staff, start thinking and talking of you in this personal, possessive way, it gives me hope that we have entered a new era. The simple change of one, three-letter word, from "the" to "our," can make all the difference in the world... a world at peace.



Loret Miller Ruppe



Peace Corps Times

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New Overseas Staff

Country Directors

Bruce Cohen, Director of Recruitment since 1984, has been chosen as Country Director for Zaire. Cohen, a Volunteer in Tunisia from 1967 to 1969, has worked for Peace Corps since 1973. He first served as a Recruiter, next was Area Manager in Miami and later the Midwest Service Center Director in Chicago.



Bruce Cohen

Fluent in French, Cohen is a Foreign Service graduate of Georgetown University. He earned his master's degree in history and economics from Illinois State University. After receiving his graduate degree, Cohen taught French and social studies at the secondary level.



Vance Hyndman

Another RPCV joining the ranks of Country Directors is Vance Hyndman who has been posted to Thailand where he was a Volunteer from 1969 to 1971.

Hyndman returns to Peace Corps from the staff of the Foreign Affairs Committee, U.S. House of Representatives, where he has worked for the past 12 years.

A speaker of Chinese and Thai, Hyndman graduated from Harvard with a degree in Far Eastern languages and did graduate work in Southeast Asian studies at Yale.

New Country Staff

Todd Sloan, RPCV/Guatemala, 1981 to 1983 has been selected APCD Programming and Training Officer for Guatemala. He worked in that Central American country from 1983 to 1984 and 1986 to 1987.

Sloan earned a bachelor's degree in Spanish and Latin American studies from Willamette University and completed his masters in international agricultural development at the University of California at Davis.

* * *

Stacy Sloan, RPCV/Guatemala, 1984 to 1986 (no relation to Todd) is the new APCD/Health for that country. From 1979 to 1984 she worked in nursing and social services at Children's Orthopedic Hospital in Seattle.

Sloan holds a B.A. from Florida Southern College and a B.S. in nursing from the University of Florida.

* * *

Charles L. Bookman, RPCV/Ghana, 1975 to 1976 has been named APCD/Education for Tanzania. Since 1978 he has been associated with the University of Massachusetts where he worked with Peace Corps training for Kenya in 1983 and Tanzania during 1984 and 1985.

He received his B.S. from Jarvis Christian College, his M.Ed. from Texas Southern University and is currently an Ed.D. candidate.

* * *

RPCV John Paul Owens has been chosen as the APCD/Agriculture for Mauritania. From 1971 to 1975, Owens was a Volunteer in Burkina Faso. Later, he returned to Africa as manager for an agriculture/health project in Benin for Catholic Relief Services.

Owens just recently received a master's degree in agriculture economics from North Carolina Agriculture and Technical State University. He also holds a degree in French from Appalachian State University.

* * *

Bruce Dahl, RPCV/Liberia, 1970s, has been named the new APCD/Administration for Liberia. Dahl worked in Suacoco, Liberia at the Rural Development Institute and also lived and worked in Gbarnga, Liberia as a Cooperative trainer.

He has studied French at Montpellier, France and has recently completed his doctorate at the University of Oregon.

Host Country Staff

Napoleon Cevallos has just been named APCD for Rural Infrastructure in Ecuador. He first began as an APCD in 1973, working with health, cooperatives and colonization projects. From 1975 to 1980 he headed the rural development, school construction and rural electrification programs. Since 1980 Cevallos has been APCD for alternative energy, appropriate technology, water and sanitation.

Cevallos retired as a Major from the Ecuadorean Army in 1972. He studied business administration at Sao Paulo University and psychology at Catholic University in Ecuador.

* * *

Diame W. Thyangathyanga has been APCD for Health and Education in Malawi since October 1986. Prior to that she was with the Government of Malawi, most recently as supervisor for Nursing Education.

Thyangathyanga has a diploma in advanced nursing from Nairobi University; midwifery and nursing degrees from the National School of Nursing in Malawi and a master's degree in psychiatric and community mental health nursing from Boston University.

* * *

James S. McNeil is the new APCD/Agriculture for Jamaica. He has served Peace Corps as Deputy Director for United Schools/Peace Corps Training Centre and as pre-service training coordinator for Jamaica/Eastern Caribbean.

McNeil has earned a teacher's diploma from Micro College, a certificate in social work and a B.Sc. from the University of the West Indies. He also holds a diploma from the University of Manchester, Vermont.

* * *

Chester Woyee has been APCD/Health in Liberia since June 1986. Prior to that he was a psychiatric worker at John F. Kennedy Memorial Hospital and Director, Employers' Contributions at the National Social Security/Welfare Corporation.

(Continued on page 7)

Peace Corps/Seychelles

The Republic of Seychelles appears as small dots on a world map 4 degrees south of the Equator in the western Indian Ocean or about 1,000 miles east of Kenya. The three major islands of Mahe, Praslin and LaDigue hold most of the nation's population. The people of the Seychelles or Seychellois, describe themselves as "Creole" which means a mixture of African, Asian and European ancestries.



Peace Corps/Seychelles came into being in 1974 as a satellite program in the Africa Region and was administered by Peace Corps/Kenya until just three years ago. In 1984, it became an independent program and was brought under the NANEAP umbrella. In the beginning, Peace Corps/Seychelles was a technically oriented program concentrating on agriculture, housing, library development, special education and recreation. Today, it remains technically oriented but with its efforts channeled into three program areas; engineering, health and education.

Peace Corps is playing a significant role in assisting the Government of Seychelles achieve its development goals in providing public education, socialized medical care and safe roads and water treatment plants. Because of the smallness of the islands and the technical nature of the programs due to the high level development needs, Volunteers have clearly defined job assignments with easy access to their supervisors and ministry officials. Three-fourths of the PCVs are assigned to the capital of Victoria on the main island of Mahe which is the hub of government and business.

Programs

Engineering Sector — There are three engineers working with the Department of Land Transport in road construction and traffic management; two other engineers work with the Water Authority. Don Fornelli, Tom Potter and Peter Waugh are assigned to the road and traffic management program. Their work ranges from road building projects to revising traffic codes and regulating bus schedules. Sandy McCarley and John Lindeberg work for the Water Authority. Their biggest accomplishments have been the design and construction of the Praslin Water Treatment Works financed jointly by USAID and Japan and the improvement of Victoria's sewage system. Amongst the engineers there is the unusual tandem engineering couple of Sandy McCarley and Tom Potter, both MIT graduates.

Health Sector—Six PCVs are assigned to this program including: Carol Tucker, health educator; Lisa Waugh, community nursing; Joni Unruh Fornelli, occupational therapy; Dottie Brooks, dental hygiene;

About the Country ...

Population:	65,000
Land Area:	171 square miles
Capital:	Victoria
Languages:	Creole, English and French
Religion:	Roman Catholic, 90%; Anglican, 8%
Terrain:	Granite islands

Wendy Nelson, media education and Kathy Andersen, nutrition.

The three Volunteers managing the health education unit are in charge of the program for the islands of Mahe, Praslin and LaDigue. The nutrition project, begun in 1981, will be phased out by Peace Corps with the Seychellois assuming the duties in 1988. The media education project began in 1985 to promote preventative health care in conjunction with the Ministry of Health to address major health concerns.



Occupational therapist Joni Unruh Fornelli (University of Kansas) works with the elders on the grounds of the Fiennes Institute. Care of the elderly is becoming a major concern for the Seychelles government.

In The Indian Ocean

Joni Unruh Fornelli, assigned to Fiennes Institute, the Seychelles' only nursing home for the elderly and geriatric hospital for the disabled, developed the institution's first activity program and training program for therapy aides.

Dottie Brooks (pictured on the cover) is the sole dental hygienist in the country and is featured as a JFK Volunteer on Page 9.

Many of Peace Corps/Seychelles most successful programs begin through the arrival of a SAV (special assignment volunteer spouse). Last year Lisa Waugh arrived with her husband and was assigned to the Division of Community Nursing to help with the training of 90 community clinic nurses. She is also working on a drug and alcohol rehabilitation program.

Education Sector—David Larson, science education, Bob Reitman, computer science; Carol Peters, English and Bill Bynum, math education all teach at Seychelles Polytechnic, the country's higher education institution.

In the future, Peace Corps/Seychelles will be phasing out some programs but it will be expanding others. Next year, the computer science program instituted by Bob Reitman will expand into a teacher-training program and a management training center for mid-level government personnel.



Bill Bynum explains equations on the traditional chalk board. No matter how high-tech we get, some things still stay the same.

Peace Corps/Seychelles is a perfect example of Peace Corps' versatility and our ability to grow and adapt to meet the challenges of tomorrow and the 21st century.

Many thanks to Country Representative Karen Blyth for photos and information.

Back Cover

(Top left, then clockwise)

Land Transport Engineers Tom Potter, Pete Waugh and Dan Fornelli, pose with one of their vehicles.

Landmark in the capital city of Victoria, the clock is a replica of Big Ben in London.

Health's Angels, as the motorized health education team is affectionately called, includes Lisa Waugh, Wendy Nelson and Kathy Andersen. (Sandals are worn for photo purposes only.)

Bob Reitman (who is married to Carol Peters) is the computer science instructor at Seychelles Polytechnic's Department of Business Studies. He holds a degree from Penn State.

Victoria National Library—In the early 1980s Peace Corps was instrumental in making this a very successful undertaking.



Carol Peters teaches an English class. English and French are both official languages in the islands.



David Larson, general science teacher, examines a project with students at Seychelles Polytechnic.

Technically Oriented Programs



PCV Sandy McCarley, water and sanitation engineer, stands with the Upper Capucin Water Supply, a self-help project she supervised. This water treatment system will supply safer water for a low income area of 450 people.

Cover photo—Dental hygienist Dorothy Brooks with children at the Seychelles dental clinic which stresses preventive care.



Engineer Tom Potter (center) is pictured here with co-workers at a newly built bus shelter. Tom has been a major force in improving the public transportation system and road safety program in Seychelles.

Inter-American Foundation Fellowships Available

The Inter-American Foundation, established to channel development assistance to the poor of Latin America and the Caribbean, offers three fellowship programs to support scholars researching development activities:

Doctoral Program

The Foundation annually awards about 15 fellowships for doctoral dissertation field research in Latin American and the Caribbean. Applicants must have completed degree requirements and are required to write and speak the language of the country where the field research will be conducted. The application deadline is December 5.

Master's Program

From 15 to 20 fellowships are awarded each year to master's level students to conduct three to six months of field research in Latin America and the Caribbean. Applicants must be enrolled in professional schools or academic programs at U.S. universities, speak the local language, and be affiliated with an appropriate institution. Fellows are selected twice a year. Deadlines for applications are November 1 and March 1.

Latin American and Caribbean Program

The Foundation awards approximately 10 fellowships each year to Latin American and Caribbean practitioners and researchers whose work in grassroots development would benefit from advanced academic experience in the U.S. Fellowships are awarded primarily to candidates for master's and doctoral degrees, and occasionally to persons pursuing a non-degree program of supervised research. The application deadline is January 15.

For further information, contact the Fellowship Office, Inter-American Foundation, 1515 Wilson Boulevard, Rosslyn, VA 22209, phone (703) 841-3864.

Looking For The "Real" Peace Corps Experience

The following is an article written by PCV Tom Wyllie and reprinted from the Peace Corps/Seychelles newsletter, *Sey What*.

There I was, a newly baptized Peace Corps Volunteer, fresh from the rigors of training and declared fit to take the plunge into another society's culture. Armed with a new language, a few crisp ruppees, and a recently purchased coconut palm sappo, I felt akin to Captain Kirk... ready to "face the final frontier." But my frontier was Seychelles and Volunteers had gone before me.

Seychelles is the "Country Club" of Peace Corps, or so I was told, and achieving the "Real" Peace Corps experience would be difficult. Determined not to be cheated out of any hard earned or justly deserved experience, I set off in search of that experience, while my fellow freshman volunteers worried themselves with the arduous task of deciding which beach to go to next.

During training, we had all tasted the delicious Kreol cooking and while thinking back with drooling palate, the proverbial light bulb suddenly winked, then steadily blazed overhead. At last I knew where to begin. What better way to immerse oneself in another culture than by adopting its cuisine? Within minutes, I was aboard a bus headed towards town and the bustling activity of the market.

Following the example of Isaac Asimov, I decided to begin at the beginning. I made a beeline towards the nearest stall offering that precious commodity—rice.

After haggling with the proprietor, I humbly returned to the bus with a worm riddled bag of bleached rice. How was I to know there were fixed prices?

Back in my humble little home, I was anxious to begin. Being solely responsible for at least one billion of the forty billion hamburgers already served by McDonald's, it was not going to be easy. I sauntered into the kitchen like a figure from an old John Wayne movie. There, lying on the counter, was my personal copy of ART KWI MANZE. On page twenty-four, I found it—a recipe for rice. This wasn't going to be your ordinary

rice—no, no, no! This was going to be Kreol rice.

The first direction was simple enough: Measure out the amount of uncooked rice needed. I figured four cups would be enough. When I read the second directive, I knew that I was in trouble. Wash the rice?

How do you wash rice? I'd washed clothes, dishes and cars, but I'd never washed rice. I didn't even know it was dirty. Then I remembered the worms. Obviously, a definite plan of action was called for. I found it on the back of my bottle of Head & Shoulders in bold, black print: Lather. Rinse. Repeat.

Using my largest pot, I combined a couple of squirts of Sunlight, some scalding hot water and the four cups of rice. I shot a blast of Dryroach into the mixture to take care of the more stubborn worms. I was damned if I was going to let one of those white mealy things slither down my throat!

With an old toothbrush, I set to work singing and scrubbing away. At last, I had found the "Real" Peace Corps experience.

Two hours and thirty-six minutes later, I finally finished polishing the last kernel. Now all I had to do was rinse and repeat. Later that night, I finished, but my singing was not quite so spirited. Immersing oneself in another culture was definitely not easy.

I put the sparking clean rice back into the pot, filled it with water, secured the lid and turned the burner on high. I was so hungry, I just wanted the rice to hurry up and cook. I grabbed a cold Seybrew from the fridge and retired to the living room to enjoy a few moments of R&R. I promptly dropped off to sleep.

When I awoke, I felt something tickling my nose. Opening my eyes to investigate, I thought surely I must be dreaming for I could have sworn I was a guest on the Lawrence Welk Show. There were bubbles everywhere!

Then I remembered the rice.

I stormed into the kitchen and fell head first into the cat's dinner. The floor was covered with a layer of slippery white goo. I scrambled to my feet and lunged toward the stove. The eruption of Mt. Vesuvius must

have looked mild compared to what was happening in my kitchen.

As I slipped once more, I managed to switch the wall socket off before landing with a thud and a splash, wedged between the refrigerator and the stove. Since I couldn't move and had at least successfully prevented the onset of fire, I thought this place as good as any and once more dropped off to sleep. A foolproof defense mechanism in times of extreme adversity.

That's where my fellow freshman volunteers found me when they came to investigate my absence from work the following morning. As they made their way to the kitchen with looks of astonishment, I simply smiled.

Tom Wyllie

(New Staff—from page 3)

Woyee holds a B.A. and MSW in social work/administration/psychiatric counseling from the University of Minnesota.

* * *

Tchao Bamaze joined the staff as APCD/Health and Education in Togo in July 1986. From 1982 to 1986 he held the position of Director of the Community Development Division in Togo.

He studied at the Universite du Benin and received a social worker diploma from the Institut de Travail Social et de Recherches Sociales, France, in 1981.

* * *

Yolanda Santiago has served as the APCD/Youth Development and Appropriate Technology in Guatemala for the past year. Before joining Peace Corps, Santiago worked as an executive bilingual secretary for seven years and for the U.S. Embassy in Guatemala.

Santiago studied at the Francisco Marroquin Institute in Guatemala.

* * *

The above staff attended the recent Overseas Staff Training Classes in Washington.

National Volunteer Week

During National Volunteer Week, April 27 through May 3, the nation paid tribute to its Volunteers at home and around the world.

On April 29, three Peace Corps Volunteers, representing their regions and all of Peace Corps, were given the John F. Kennedy Volunteer of the Year certificates by Vice President and Mrs. George Bush at the White House.

The three PCVs acting as your representatives were: Dorothy (Dottie) Brooks, Seychelles, NANEAP; Rex Rund, Haiti, Inter-America and Anita Pauwels, Burundi, Africa.

Brooks is a resident of Costa Mesa, Calif., Rund lives on a farm near Pesotum, Ill., and Pauwels is from Shattuck, Okla.

After a round of activities in Washington, D.C., the three returned to their home states to help with recruitment work.

In an effort to highlight development education during this special week, more than 2,000 former Volunteers, representing 29 RPCV groups, gave programs to schools and community groups. The programs ranged from a demonstration (in French) of West African cooking for a French IV class in Oregon, to a discussion on small enterprises in Africa with a Rotary Club in Ohio. Peace Corps Director Ruppe lectured on global perspectives at Benjamin Bannecker High in Washington, D.C., to a class whose teacher was a PCV in Sierra Leone.

The following are brief descriptions of the Volunteers who so ably represented you in Washington and across the United States, and their work in Peace Corps.

Anita Pauwels

Anita Pauwels, a fisheries worker in Burundi, represented Africa during the National Volunteer Week activities. Pauwels, who holds degrees in chemistry and biology from Southwestern Oklahoma State University, was selected to help begin the fisheries project in land-locked Burundi. She, and her husband, James, also a PCV, were posted to the Ngozi Province and, as a team, had the difficult task of introducing mod-

ern fish culture to the farmers and local community leaders.

Pauwels currently provides extension support to five provinces which have 51 active fish ponds. She has also produced a fisheries booklet in French and Kirundi, the national language. National distribution of the booklet, begun in December, has greatly facilitated spreading fish culture techniques throughout the country. An accomplished artist and known for her work in sculpture, Pauwels' talents came in especially handy in the production of the booklet. (It should be noted here that upon her arrival in Burundi, Pauwels began language training with zeros in both French and Kirundi. After only ten weeks she had FSI scores of II in French and I in Kirundi.)

As a secondary project, Pauwels sponsored a rabbit-breeding project which is expanding by leaps and bounds.

Rex Rund

Peace Corps is a family tradition for the family of Rex Rund, who is



Working as a veterinary assistant in Haiti, Rex Rund checks the ears of one of his charges.



Anita Pauwels (center) and her eager group examine a pond sample at one of Burundi's fisheries project. Husband and co-worker James (in cap) is pictured in the foreground.

White House Ceremony



At the White House—Peace Corps Director Loret Miller Ruppe, Barbara Bush, Dorothy Brooks, Vice President George Bush, Rex Rund and Anita Pauwels. The PCVs hold the JFK awards. Mrs. Bush holds a certificate presented by the Volunteers in appreciation of her work with Peace Corps' families.

serving in Haiti. His oldest brother served in Ecuador in the 1970's and a younger brother is scheduled to begin service in August. Rund grew up, with nine brothers and sisters, on a corn and pig farm in Illinois.

Peace Corps service has enabled him to pursue his two great interests, farming and music. (He holds a master's degree in music from Eastern Illinois University.)

He works with the Inter-American Institute for Cooperation on Agriculture as an extension agent and veterinary assistant in Haiti's Swine Repopulation project. (In 1976, Haiti entered into an agreement with the U.S., Canada and Mexico to help prevent the spread of African Swine Fever. This could only be accomplished by eliminating the swine population. The eradication program ended in 1983 and the repopulation program began.) Rund was person-

ally responsible for distributing 4,800 new pigs to small farmers. Currently, he is responsible for technical training and routine veterinary work at 30 piggeries in central Haiti.

As for his music, each Friday Rund provides his services to a music school in Port au Prince for the adult choir. The choir's most recent endeavor was a performance, with orchestra, of a Haitian mass based on voodoo melodies.

Dottie Brooks

A native Kansan and transplanted Californian, Dorothy (Dottie) Brooks (see cover), serving as a Volunteer in Seychelles, was NANEAP's JFK Volunteer.

After teaching school in Kansas for several years, Brooks enrolled in the Dental Hygiene Program at the University of California Dental College.

She received her degree in 1951 and embarked on a new career as a dental hygienist and became involved in many volunteer activities.

Hoping to expand her volunteer work, in 1985, at the age of 67 she joined the Peace Corps.

In her capacity with Peace Corps Brooks runs a dental hygiene program and specializes in preventive dentistry. Although her program focuses on preventive care for children, being the only dental hygienist on the island, her patients range from small children to the Chinese and Russian Ambassadors.

Brooks is at the center of an international project—the Seychelles government has requested she extend for a third year to work on the Australian-funded Dental Auxiliary School to help train dental hygienists, school therapists and dental assistants.

AIDS—Facts and Policy

There is a consensus among the scientific and health communities that AIDS (Acquired Immunodeficiency Syndrome) is the biggest threat to world health since the plagues of the Middle Ages. AIDS was identified about seven years ago but still remains a mystery to the scientists who study it. And, because of the mystery and the mobility of 20th century society, no country, on its own, can hope to control its spread. Whether it is called SIDA (the French acronym) or "slim disease," as in some African nations, AIDS is a fatal disease that respects no geographical, political or social borders. Conquering AIDS demands a total global effort.

According to the World Health Organization, some 113 countries are now reporting the disease but many still decline to do so. Dr. Jonathon Mann of WHO's AIDS project, estimates that 10 million people are now infected with the virus which causes the disease and 3 million will exhibit the symptoms in five years' time.

Hardly a day goes by in the West without a major news item about AIDS... research, new strains, new theories or new statistics. In June an international medical conference of more than 6,000 participants was held in Washington, D.C. What continues to elude us is the explanation of, a cure for, or a vaccine against the killer disease.

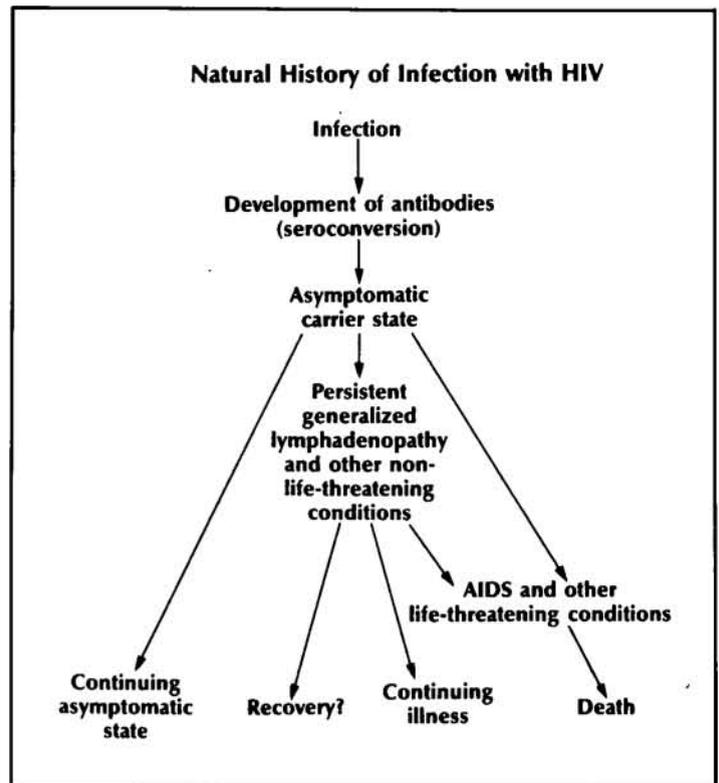
Currently, the only way to battle AIDS is by prevention... prevention by education. All Peace Corps Volunteers should be aware of the following facts:

1. AIDS is a fatal disease that cannot be cured.
2. AIDS is spread by sexual intercourse, by contaminated blood, by contaminated hypodermic needles and through other skin punctures.
3. A person can look and feel healthy and still be able to spread the infection that causes AIDS.
4. AIDS has not been shown to be transmitted by insects.
5. AIDS has not been shown to be spread by casual contact.
6. An infected woman can give AIDS to her unborn child.

Groups now at highest risk of infection include: sexually active homosexual and bisexual men with multiple partners, present and past abusers of intravenous drugs, heterosexual partners of persons with AIDS or at high risk for AIDS, and heterosexual persons with multiple sexual partners or partners who have multiple contacts.

About Testing

AIDS, which is caused by a virus called Human Immunodeficiency virus (HIV), is the most severe syndrome associated with HIV infection. Evidence of infection can be demonstrated either by clinical presentation of AIDS or other, less severe, diseases known as ARC or AIDS Related Complex. (However, ARC patients have died without ever meeting the strict criteria of the AIDS diagnosis.) ARC is a much more common manifestation of HIV than AIDS. Based on one study in San Francisco, it is estimated that about 30% of HIV infected persons will develop AIDS over a six year period, another 35% will develop ARC and then a percentage of those will develop clinical AIDS.



In the absence of clinical disease, the most sensitive method for confirming infection is finding antibodies to HIV in the blood. When antibodies are found, a person is said to be "seropositive." The prefix "sero" comes from the word "serum." It is actually not fresh blood that is tested, but serum prepared from the blood. If no antibodies are found, a person is "seronegative." If a person who has no antibodies becomes infected and develops antibodies, the person is said to have "seroconverted."

The test developed for screening blood for antibodies is called an ELISA (Enzyme-Linked Immunosorbent Assay) test. This test does yield some false positives. Therefore, all positive ELISA tests are reconfirmed by a repeat test. If the second test is positive, a more specific test, the Western Blot, is done.

On March 1, Peace Corps incorporated HIV testing into the Volunteer health care program.

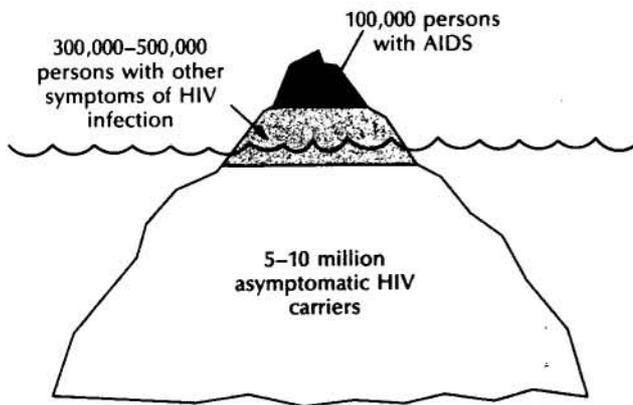
Applicants must present documents of seronegativity to HIV as part of the routine medical information before medical clearance will be given.

It should be noted, however, that seroconversion may take up to six months. Therefore, it is possible for someone who is infected but who tests negative prior to Peace Corps service to develop a seropositive test while a Volunteer.

Tests may be required of any PCV who exhibits signs or symptoms suggestive of AIDS or ARC or who provides specific information about exposure to the infection to the Peace Corps Medical Officer. (Test specimens are taken in-country, actual testing is done in the United States.) A PCV who shows seropositive on the Western Blot test will come home for further testing and counseling. The Western Blot will only be done after two ELISA tests have been positive.

AIDS—Facts and Policy

Estimated Numbers of Persons with AIDS, of Persons with Other Symptoms of HIV Infection, and of Asymptomatic HIV Carriers, World, Early 1986



Testing is available upon request at the expense of the Volunteer. Tests underwritten by Peace Corps become part of the Volunteer's Medical record; tests at the PCV's expense will not.

A special one-time, one-test program to allow any PCV in service to be tested confidentially, but at Peace Corps' expense, will be in place soon.

Testing is now part of the normal Close-of-Service medical examination. Most testing will be conducted when PCVs return to the States with reimbursement by Peace Corps as is the common practice for other portions of the medical exam which cannot be performed in-country.

The rationale for AIDS testing includes the following: Diagnostic difficulties—It is unlikely that mild symptoms of ARC can be differentiated from normal disease patterns in Volunteers.

Inadequate laboratories—PCVs live where clinical referral and labs may not meet standards acceptable to Peace Corps.

Vaccine Safety—It is generally thought that someone without a normal immune system should not receive live vaccines.

Acceleration of the progression of asymptomatic HIV infection to AIDS—Infections seem to increase the risk or accelerate the development of HIV-related illnesses. Transmission—In addition to the possibility of passing the virus on to other Volunteers, the possibility exists that a PCV could transmit the virus to a host country national.

If Trainees or Volunteers are found to have positive ELISA and Western Blot tests, with or without evidence of immunosuppression, these individuals will either be allowed to resign or request an early COS, if available under current rules, or be granted a medical separation from Peace Corps due to their potential continuous exposure to infections which challenge the immune system.

Because of the nature of AIDS, medical confidentiality is of paramount importance. Pertinent portions of the medical record will be made available to those health care providers who have direct responsibility for care upon receipt of form PC-1520, Authorization for Release of Medical Information, signed by the Volunteer or Trainee.

Policies and Measures

Pre-Service & In-Service—Volunteers and Trainees are given information on risks and specific preventive measures. Country specific information and condoms are available to all Volunteers and Trainees.

Transfusion Policy—Volunteers are not to receive blood from local blood banks or from host country nationals. PCVs and staff are enrolled in a "walking donor" program in cooperation with the United States Department of State. In this program blood donors from the American community are interviewed and de-selected if they have any risk factors for HIV infection.

Injectable Medication and Vaccine Policy—Peace Corps prohibits Volunteers from receiving any medication or vaccine given by nondisposable needle and syringe from local sources. Disposable needles and syringes are included in medical kits provided by the Peace Corps Medical Officer when medications such as immune globulin must be given by alternate health care providers.

The threat of AIDS is real. And it is insidious. It is possible for an individual to have the HIV virus without being aware of it.

Groups being routinely tested in the United States are blood donors, members of the armed forces, Foreign Service employees and government employees from 30 other agencies who serve overseas and fall under State's medical regulations.

Until such time as a cure is found for AIDS (and at the International Conference in Washington in June, no one would even speculate when that might be) our only defense against the disease is prevention.

Your Peace Corps Medical Officer will provide you with more specific in-country information and will keep you informed of measures you can take to reduce your risk of exposure, including:

- Abstinence from sexual conduct, limiting the number of your sexual partners and avoiding sexual contact with anyone who has had many partners.
- Consistent and correct use of condoms with every act of intercourse. Protect yourself, protect your partner.
- Avoid any injections not provided by your Peace Corps Medical Officer.
- Avoid giving or receiving blood transfusions except under the supervision of the Peace Corps Medical Officer, or in cases of life-threatening injury.
- Avoid sharing toothbrushes and razors.
- Avoid all practices that result in penetration of skin surfaces such as tattoos, ear piercing, acupuncture, blood brotherhood ceremonies or other incisions of the skin during traditional ceremonial or healing practices.

Overseas and Over 50

There may have been a time when the phrase "graying of America" conjured up an image of grandparents playing shuffleboard or pedaling three-wheelers along sunny lanes in Florida. But no longer. Now, vital people are retiring at a younger age and in better health than ever before. Many of these skilled, experienced men and women are actively seeking organizations and places where they can continue to work and lead productive lives. What a lucky break for Peace Corps!

Think of Peace Corps' own Odilon (Odi) Long, the pace setter of all time. When he retired in 1967 at the usual age of 65 he wasn't about to stop. "Working keeps you young," he said. "I needed Peace Corps and Peace Corps needed me. When I applied I definitely committed myself to another career." And so he has.

Almost continuously for the past 20 years Odi has served as a Volunteer utilizing his skills as a building planner and carpenter. During his assignments in Africa and Haiti Odi spoke his first language, French. But for his current tour in Costa Rica, he told the *Times*, "I bought a tape recorder, some Spanish language tapes and hired a tutor to get myself ready for this country!"

Odi's long-term service to others has not gone unnoticed. Two weeks after his 85th birthday in March he was honored with a Special Recognition Award from the National Public Service Award Committee for "a career (in Peace Corps) exhibiting the highest standard of excellence, dedication and accomplishment and for outstanding contributions that offer enormous inspiration to all those interested in public service."

The Committee paid homage to Odi just as Peace Corps for 25 years has valued the integrity and richness that Senior Volunteers bring to their country assignments. This relationship has been mutually beneficial and happily, the number of Senior Volunteers steadily rises. In 1961 fewer than one percent of all Volunteers were over the age of 50 which is Peace Corps' criterion for Senior Volunteers. By 1987 that total had grown to almost 12 percent.

Considering the initial problems

facing Seniors, the rise in numbers is more than impressive. By the mere fact of having lived more years, Seniors have to put more effort into annotating their applications.



Odilon Long

Moving overseas is much more complex for them than for younger Volunteers. Seniors have to finalize arrangements for their homes and take care of paperwork for insurance, mortgages, lawyers and myriad other business affairs.

But you won't find a more enthusiastic or energetic group of Volunteers than those Seniors! They are welcomed (almost venerated) by the people they serve. They bring maturity, expertise, flexibility, sensitivity and sensibility to their projects.

Of course there are problems, just as there are with younger Volunteers. Seniors don't have more of them, they just have different kinds. Under the guidance of an enthusiastic Director Ruppe, and with most every Headquarters office involved, Peace Corps is working to solve those difficulties.

For many, language tops the list. According to a study recently completed in Honduras, Seniors would do better with initial access to additional learning techniques such as visual as well as audio aids. (This simply means taking notes, using textbooks and a blackboard.)

A world-wide language conference was held in Thailand in May to find easier and better ways for Seniors to learn foreign languages.

Seniors seem eager to know more about the application process, assignments and host countries at an earlier time. Volunteer Recruitment and Selection (VRS) is helping with these needs by providing Seniors with more realistic information sooner than usual.

Placement and Staging staff are acutely aware of the special needs of Seniors and also of the compassionate and mellowing effect people of that age can have on a larger group.

Since March of 1986, all Senior Volunteers have been given a Senior Volunteer Resource Manual at their Close of Service (COS) conference. This booklet, produced by the Returned Volunteer Service (RVS) office is a wealth of information concerning re-entry, readjustment and Stateside opportunities.

During the past two years a VRS sponsored Senior Volunteer Project Team has been regularly meeting, discussing and implementing more amenable methods of recruiting senior PCVs. Through the combined efforts of the office of Policy and Planning Analysis (PPA) and OTAPS, a questionnaire was sent to Seniors in all Peace Corps Countries. An excellent response to this survey has given Headquarters a substantial amount of honest information concerning the needs and wants of Senior Volunteers.

A task force headed by Arlen Erdahl, Associate Director of VRS, has been formed to "look at and implement ways Peace Corps can better attract, retain, utilize and accommodate, if need be, the increasing number of older Americans who have so much to give and receive from the Peace Corps."

All considered, the "graying of Peace Corps" is an ever growing and valuable aspect of the Volunteer community.

We can hope to look for a significant addition to their numbers in the future. Just recently it has been announced that the American Association of Retired Persons (AARP) and Peace Corps will be working hand in hand. By registering with AARP's Volunteer Talent Bank, those who indicate an interest in international

(Continued on page 13)

From The Country Directors' Conference

The subject of seniors... as applicants, as trainees and as Volunteers... was an important agenda item at the Worldwide Country Directors' Conference held in Washington in February.

A workshop, chaired by Mila Brooks, PCD/Dominican Republic and Bob Clarke, PCD/Micronesia discussed a broad range of subjects relating to Senior Volunteers, particularly in the recruitment/placement process (and preparing to go overseas), training (particularly language training), medical support and site selection. The workshop participants then made their recommendations to Director Ruppe for her consideration. Among these recommendations are:

- all senior applicants to Peace Corps receive a personal interview by a recruiter
- as much realistic country-specific information be provided to senior applicants as early in the recruitment stage as possible
- once an invitation to join Peace Corps has been issued, that nominees be reimbursed for language training done at home
- a senior "ombudsman" or coordinating office be established in

PC/Washington to enhance the agency's capacity to respond to generic senior issues as well as specific individual cases/concerns

- that better medical screening be provided early in the application process, including more comprehensive hearing tests
- better language training methods be developed, including the integration of language and skill training.

To examine these numerous issues in a little more depth before deter-

mining the best means of implementation, Director Ruppe appointed Arlen Erdahl, Associate Director of VRS, to chair a Senior Task Force, composed of representatives from International Operations, Medical Services, Special Services, General Counsel, Public Affairs and the Office of Training and Program Support to recommend implementation strategies on the country director suggestions within 90 days. The group has just gotten underway, but some improvements are already in the works.

Marty Mueller

Your Best Shot Photo Contest

A new and on-going "Best Shot" photo contest begins with the Times September/October issue. All Volunteers and staff are eligible and the topics are up to you. They should reflect your Peace Corps experience... your assignment, site or the people you work with are a few examples. Black and white prints are best for reproduction but the Times will accept slides. Be sure to write your name and address on the backs of all

submissions so we can return them to you.

Awards are negotiable depending on the winners' whims. Favorite treats including M&Ms, herbal teas, film or other hard-to-get items are all on the list. A photo credit and short bio in the Times are certainties!

Air mail your Best Shot to: Peace Corps Times, M-1214, 806 Conn Ave. NW, Washington, DC 20526.

(Overseas and Over 50)

volunteering can be referred to Peace Corps. One does not need to be a member to use the Talent Bank.

Although the Talent Bank's main thrust is matching volunteers with short-term or ongoing community service projects and programs within the U.S., AARP Talent Bank registrants who want to use their skills overseas could be a very productive source of more Senior Volunteers for Peace Corps. There are more than 25 million members of AARP!

Conversely, it is a fine opportunity for COSing Senior Volunteers to continue their good work at home in America. If you would like to have a Registration Packet sent to your home of record in the U.S., write to: AARP Volunteer Talent Bank, 1909 K St., NW, Washington, DC 20049.

Gloria Ross

hotline

Each year, about 2,500 Peace Corps Volunteers complete their overseas assignments and return to the United States to enter the job market. To assist these Volunteers with the transition period, the office of Returned Volunteer Services offers a variety of career-specific publications in addition to the *hotline* job bulletin, *hotline*. Volunteers are made aware of what services the RVS office can provide by reading their Career Resource Manual (which is sent directly to the Volunteer at post before the Close of Service conference) and at the COS conference itself.

This year has already proven to be a banner year for the *hotline* publication. Because of the non-competitive eligibility status that Returned Vol-

unteers have for the first year they are back, all branches of the Federal government are frequent and faithful advertisers. Additionally, an "Employers Brochure" has been developed and sent to over 1000 corporate personnel executives nation-wide. The brochure stresses the self-motivation, leadership qualities and established career credentials of RPCVs.

The *hotline* will be sent to your home of record address six to eight weeks after your COS date. If you relocate, please notify the RVS by sending in your *hotline* mailing label (or include your social security number) at M-1107, Peace Corps, Washington, DC 20526. (800) 424-8580 ext. 284.

Fiji PCVs Celebrate Golden Anniversary

Over fifty and overseas has another meaning for Jack and Jean (Morris) Boley who are serving in Fiji. On May 29th, these Peace Corps Volunteers celebrated their 50th wedding anniversary. The Times asked the Boleys to recount some of their history together and their decision to join Peace Corps. Jean, the journalist in the family, tells their story.

Jack and I met at the University of Washington where he was majoring in marketing and I in journalism. As a result, we were both working on the University of Washington Daily; Jack as the advertising manager and I as a feature and copy writer.

Jack was a senior and I a sophomore at the time we were married. We chose May 29 because this gave us a three-day holiday from his new job in the regional advertising department of Sears Roebuck in Seattle. We were children of the Depression and the very fact there was a job available, much less for the munificent salary of \$18.50 a week, was sufficient incentive to be married then, just a few days before my 19th birthday.

Like so many others, our lives were interrupted by World War II. Jack served in the South Pacific with the Navy for two and one-half years. We now find the war fresh in the memories of many Fijians who were very much affected by it, and who served with the American military in a variety of roles. As a result, they will say such things to Jack as, "You and I are brothers."

After the war, Jack's career took us the corporate route from Seattle to Yakima, to Portland to Washington, D.C. In the late 1950's, we returned to the Northwest where our families all were. In 1962, we went back to the Yakima Valley where we had both spent our childhoods. Jack was doing newspapering, serving with a number of civic organizations such as the school board and I worked for the Washington State Farm Bureau. In 1971, on sort of a whim, we went to Montana and bought a radio station which was in a state of decline, revitalized it, put in automation and added an FM station. It was a seven-year period of dedicated effort, fun and what are commonly known as



Jean and Jack Boley of Seattle celebrated 50 years of married life on May 29 at their site in Fiji.

challenges. We sold the stations in 1979 and spent the time BPC (Before Peace Corps) traveling and enjoying life in Seattle.

In the winter of 1984-1985, Loret Ruppe's African appeal took us off the sofa in our condominium and to our Peace Corps Recruiter.

Because of the limited number of countries accepting couples at that time, it was suggested Central or South American countries would be our most likely destinations and we thus began to refresh our extremely limited Spanish. We took ourselves off to the University of Washington for classes in travelers' Spanish.

When we called Peace Corps/Washington on our appointed day, we were flabbergasted and delighted to learn our assignment would be Fiji. We have found the country and its people delightful and the possibilities enormous. Our assignment has been to three coastal villages on the island of Viti Levu. This particular area is uniquely arid in comparison to the rest of the island and our first fifteen months were spent managing solar salt projects in the three vilages. We were pleased that the villagers were able to produce a record 258 tonnes of salt in 1986.

We are now involved in a large

water supply project which will provide water for about 2,000 in this chronically water-short area. We are also in the initial stages of a tourist plan which should be of considerable benefit to the villages whose shortage of agricultural land has created a continuing economic problem.

Jack and I would like to say that we feel Peace Corps is an ideal role for active retired Americans. With the freedom from many earlier pressures, the opportunities are offered for commitment, innovation and the lifetime of experiences gained to help deal a little more easily with the inevitable frustrations and problems. Many cultures, too, regard age with the respect that helps make the job go along more smoothly. And of course, the adventure of a new culture and the rewarding warmth of friendships made is "icing on the cake!"

Jean Morris Boley

(The Boleys began training in July of 1985 and took the oath of service in September of that year. They are scheduled to complete their tour in September of this year. They have five children and seven grandchildren.)

Development Education

This past March, InterAction and the Overseas Development Council announced the results of a survey on public attitudes on development and U.S.-Third World relations. In conducting this important initiative, the Public Opinion Project, these two organizations sought to:

1. Examine U.S. public perceptions of problems facing the Third World and the efforts to ameliorate poverty and hunger in those countries.
2. Ascertain public attitudes about U.S. economic relations with the Third World.
3. Identify American perceptions of personal as well as U.S. national interests relating to international development.
4. Examine factors that may motivate or inhibit public support of development efforts.
5. Identify the demographic characteristics of existing and potential supporters of international development efforts.
6. Gather information on the ways Members of Congress and Congressional staff learn about development issues.
7. Identify information sources that are perceived to be the most reliable and influential in policy making.

This project has special relevance for the efforts of Peace Corps Volunteers to build through public outreach and information dissemination campaigns, an American constituency interested in alleviating the sufferings of the poor and in stimulating economic growth in the Third World.

For the Peace Corps community, this study's findings bring both good and bad news. The widespread feelings of humanitarian concern and responsibility toward people in other countries, as well as the steady support for the concept of U.S. economic assistance, are positive signs. But there are negatives, too: the extent to which the public is uninformed on foreign policy issues in general and third world issues in particular; the lack of awareness of U.S.-Third World economic interdependence; and the perception of economic as-

sistance as wasted or ineffective. What are the implications affecting Peace Corps? What does the public need to know in light of the survey's findings? What can be inferred from the survey about the processes that will interest and involve the public in development issues? What do the findings suggest about the need for Peace Corps Volunteers to identify and reach the various audiences whose attitudes the survey revealed?

Even before the survey there were good reasons to believe that Peace Corps Volunteers should be educating Americans about the Third World and development. The survey's findings not only reinforce this perception, but imply two particularly important reasons in support of Peace Corps' Third Goal "to promote a better understanding of other peoples on the part of the American people."

First, there is a wellspring of concern and compassion for the suffering of the Third World's poor and hungry and a strong sense of responsibility for doing something about it. What prevents Americans from realizing their own desire to help is the knowledge and understanding that can not only motivate, but empower them to act. Without a grasp of what life is really like in the Third World, what people are doing to make development happen, and how individuals effect and are affected by underdevelopment, the public sees little justification for making any ongoing effort to act on its humanitarian impulses. And without the inspiration of hope that the future can indeed be better for the poor of the Third World, there is little motivation to become participants in the development process.

Second, the current degree of ignorance about those regions in which the majority of the world's population live, presents problems to our own well-being and that of the world. Domestic and international affairs are becoming increasingly influenced by events and actions in the Third World, the wisdom with which we respond to that reality may determine the quality of our future. As a world power governed by the voice of its people, we can ill afford a

citizenry unable to speak its mind on issues of such magnitude.

The survey results also have clear implications for what the substance of development educational activities should be and how to best get the messages across. One of the most interesting and significant implications of the entire survey is that important as those messages are, the way we deliver them may be even more important. Personal contacts, connections and experiences are the most crucial element affecting attitudes about the Third World. Perhaps this is why programs like the Peace Corps, with its Volunteers working in the field, can do so much to establish a sense of personal connection with developing countries and help satisfy America's strong concern about the effectiveness of development activities.

Education about the developing world needs to not only convey a great deal of factual information, but this information needs to be conveyed in such a way that audiences gain a personal sense of what it means to live in a Third World country.

Educational messages should:

- increase basic knowledge about the Third World;
- reveal the realities of life in the Third World;
- show that Third World people are trying to help themselves become self-reliant;
- provide a balanced view of the successes and failures of Third World governments;
- define and explain the development process;
- document effects of political and economic policies on developing countries;

As the results and implications of the survey point out, there are many ways in which Peace Corps Volunteers can be effective communicators to the public about the Third World and development, whether or not they are involved in education per se. There is much that this survey reveals that should stimulate interest in development education among Peace Corps Volunteers.

Margaret Pollack

Peace Corps Partnerships

As the number of Peace Corps Partnership projects increases each year, so does the number of Volunteers meeting their Third Goal commitment **before** they complete their tour. Current Volunteers, and their community leader counterparts, are choosing the Partnership Program as a way to meet requirements for outside financial assistance for urgently needed projects and at the same time satisfy their desire to share their cultures.

The projects vary greatly in size and type. Schools, health centers, wells, sanitation and agriculture projects have all received assistance through the Partnership Program. The donors also vary—individuals, RPCV groups, schools (from day care centers to universities!), foundations and corporations. In each case the donor receives project updates from the Volunteer. Donors have often commented about how these reports have been their introduction to the trials, tribulations, joys and rewards of working overseas.

Many donors, especially school groups, opt to participate in cultural exchanges with the project community. Letters, photographs, stories, songs on cassette tapes, drawings and a variety of other objects are sent overseas to communicate something of our American culture and begin international friendships. Then the overseas community sends a similar assortment of cultural items to share their way of life with their American Partners.

Frago Named Associate Director

Doug Frago, Country Director in Guatemala for the past two years, has been named Associate Peace Corps Director for the International Operations Division. He assumed his new duties in Washington on June 1.

Prior to joining Peace Corps staff in 1985, Frago had been an almond grower and an instructor at California State Polytech University. He and his wife, Donna, both served as PCVs in Guatemala.

How often do you Volunteers hear host country friends express the desire to learn more about the U.S. or have an "American pen pal?" And how many times do you wish to share your enthusiasm for your adopted culture? The cultural exchange aspect of the Partnership Program is an opportunity to do just that.

A sampling of current Partnership projects

- Calanutan Elementary School Classroom Addition, Philippines. PCV Carrie Evans is coordinating this project to build an additional classroom for Calanutan's Elementary School. The project request of \$1,796.90 will purchase the necessary materials.
- Los Copeyes Aqueduct, the Dominican Republic. PCV Denis Roarty is the project coordinator

for this effort to bring water to the community by means of an aqueduct and a system of 12 taps. At a project request of \$5,320.28, this is an unusually expensive Partnership project.

- Agricultural Training Equipment, Kenya. PCV Lisa Skow, an English teacher at St. Anthony's Secondary School, is organizing this project to purchase equipment to be used in the school's new agricultural training block. The project request is \$1,401.46.

The Times will continue to bring you news about current Partnership Projects. If you would like more information on conducting your own Peace Corps Partnership Project, contact your in-country Peace Corps office and ask for the *Partnership Program Volunteer Handbook* or write to: Peace Corps Partnership, 806 Conn Ave., NW, M-1107, Washington, DC 20526.

News in Brief

"The Demographic Trap:" "Our contemporary world is being divided in two by demographic forces," according to a *Worldwatch* paper by Lester Brown and Jodi L. Jacobson. "Nearly half the world, including the industrial countries and China, has completed... the demographic transition" and has achieved or soon will achieve a fertility rate at or below the replacement level. "In the other half, where birth rates remain high, rapid population growth is beginning to overwhelm local life-support systems in many countries, leading to ecological deterioration and declining living standards."

In classic demographic analyses, a country moves from the premodern condition, in which both birth and death rates are high, to the second stage, in which improved health measures and agriculture production reduce death rates while birth rates remain high. In the third stage, economic and social gains reduce the desire for large families, and birth and death rates achieve an equilibrium at a much lower level. Unfor-

tunately, says *Worldwatch*, many Third World countries are getting stuck in the middle stage. After only a few decades of inadequate economic and family planning, population growth and the associated ecological and economic deterioration threaten to prevent them from completing the transition. "The only long-term alternative then becomes a return to the equilibrium of the first stage," in which now high birth and death rates will create enormous new potentials for social conflicts.

"Governments," the paper warns, "are moving into uncharted territory in the population/environment/resources relationship. For the first time, governments are faced with the monumental task of trying to reduce birth rates as living conditions deteriorate, a challenge that may require some new approaches. If they fail, economic deterioration could eventually lead to social disintegration of the sort that undermined earlier civilizations when population demands became unsustainable."

World Development Forum

From the Field

Biogas Stoves/Morocco

The following article is adapted from reports developed by C.D.E.R. (Committee for the Development of Renewable Energy) with assistance from Peace Corps Volunteers. The material was submitted to ICE by Rachid Arabi, Peace Corps/Morocco Librarian.

In many countries, much more emphasis has been placed on developing digesters for producing biogas than on developing appliances for its use. This bias is reflected in the literature. Of the small amount of literature that exists on biogas usage, a large portion is oversimplified and unscientific, making it virtually impossible to choose between different stoves and lamps on the basis of suitability for a particular application and for efficient usage of gas. Furthermore, although many of these stoves and lamps must be specially fabricated, very little is written about which components are the most critical for proper functioning. This last point should be emphasized since many stoves and lamps will be fabricated using locally available materials and will not be exact copies of the original.

Guidelines for Designs and Modifications

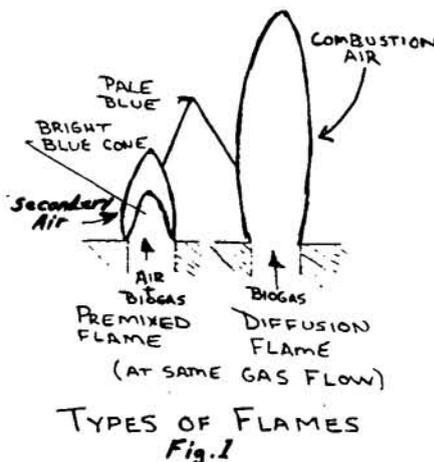
Several types of biogas stoves were tested at CDER. Two basic types of stoves were chosen from these tests: stoves specially fabricated for biogas, and stoves locally available for butane that could be adapted for biogas usage.

Basic Theory

A gas such as biogas can be simply ejected from a hole or hose and burned, or it can be mixed with a quantity of air before it is burned. When raw biogas is burned, the flame is pale blue and long enough for all the air necessary for combustion

to come in from the outside. If this flame is big enough, some yellow will be seen in the upper portion. Because all of the air necessary for combustion must diffuse into the flame from the outside, it is sometimes called a diffusion flame.

It is possible, however, to mix some air with the biogas before it is burned. By premixing air with the biogas before burning, the flame becomes shorter and hotter than a pure diffusion flame. The air mixed with the biogas before burning is called the primary combustion air or primary air. The remaining air necessary for combustion coming from the outside is called the secondary air. When enough primary air is mixed with the biogas, the resulting "premixed flame" will have a bright cone of blue immediately outside the burner hole (fig. 1). As more primary air is added to the flame, the blue cone becomes a larger proportion of the total flame. As too much primary air is added, however, the flame moves away from the burner and goes out.



When a flame touches a relatively cool surface, such as the bottom of a pot, the combustion stops, thus preventing some of the gas from being completely burned. This incomplete

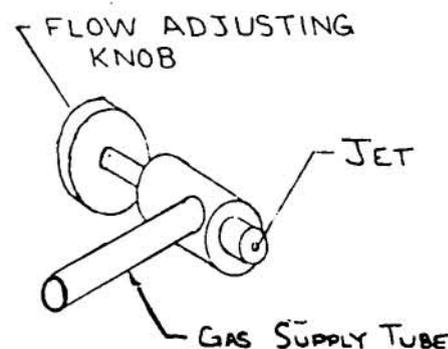


fig2 GAS VALVE

burning can produce some dangerous gases as well as allowing some unburned biogas to escape into the kitchen. When biogas is incompletely burned, there is generally a "sulfur" or "rotten egg" odor given off by the burner.

In order to prevent the burning biogas from touching the bottom of pots, most stoves try to have short flames by premixing air with the biogas before burning. Most of the stoves have primary air ports or primary air holes near the gas valve to allow some air to mix with the biogas.

All biogas stoves require considerable ventilation to allow the burnt gases to be carried out of the kitchen.

Parts of Stoves and Burners

The basic parts of gas burners are shown in figures 2, 3, and 4. The gas valve allows adjustment of the amount of gas leaving the jet to go to the burner. The primary air holes or primary air ports are near the jet and allow air to be drawn into the mixing tube. The biogas and air become a uniform mixture while traveling

(Continued on page 18)

through the mixing tube to the burner head. From there, the mixture leaves through the burner orifices or burner holes and ignites. The remaining air necessary for complete combustion enters from the sides or from secondary air ports around the burner head.

A stove consists of one or more burners, a stove base, and a pot support. The stove base and pot support may be in one piece, as for stove 2, or separate, as for the butane stove.

Fabricated Stoves

These stoves can be made of either cast iron (stove 1) or of welded steel (stove 2), with the general form seen in figure 6. The critical parts of the burner are named in figure 2. A mechanical drawing of the stove of cast iron is shown in figure 5.

In tests done by CDER in 1984 and 1985, it was found that these stoves could operate with an efficiency of over 50 percent, given suitable gas flow and flame conditions. At a given gas flow, the stove gave high efficiencies, with little odor of unburnt biogas, when the flame was stable, short, and exhibited bright blue cones inside the flame (over the holes of the burner head). In order to achieve this type of "premixed" flame, it was necessary for the stove to draw in sufficient air to mix with the biogas before reaching the burner head (sufficient "primary air"). Without sufficient primary air, the flame became much larger and uniformly pale blue without exhibiting bright blue cones over the burner holes. When this type of flame touched the bottom of a pot, it produced a strong smell of unburnt biogas.

Recommended Jet Sizes For Stoves 1 and 2

Pressure	Jet Diameter	Notes
3-5 cm WC (Water Column)	2.5 mm	It may be necessary to use a smaller jet size to have sufficient primary air
5-20 cm WC	2.0 mm	
15+ cm WC	1.5 mm	

Note: These jet sizes are for use with low-restriction gas valves designed for use with butane at low pressure (after a pressure regulator). High pressure valves such as those that screw directly into the gas bottles, are generally too restrictive to use.

In order to assure sufficient primary air for the stove, it was important to have sufficient burner orifice area, sufficient primary air port area, the proper jet diameter, and as few sharp edges as possible inside the mixing tube. Both of the stoves have adjustable cover plates to allow the primary air ports to be partially blocked if the stove draws in too much primary air.

Modified Butane Stove

A locally available (in Morocco) butane stove of the type "FORT GAZ" was modified to use biogas. It should be noted that even after the modifications, this type stove produced some odor of sulfur when in operation, and required more ventilation than the first two stoves mentioned. Stable blue cones were generally not possible to achieve on this stove due to small burner hole area. The burner hole area can be increased by using two burner heads as seen in figure 10. Less of an odor of sulfur was produced when operating at a pressure above 20 cm WC (Water Column) with the small jets.

The modifications to this stove consist of several steps:

- **Modification of Jet Sizes—**

The removeable jets must be changed for the stove to work on biogas.

- **Adjustment of Primary Air Ports**—The primary air ports must be adjusted on each burner to allow the correct proportion of air in the mixture. Figure 9 shows a piece of thin galvanized steel bent into a sleeve that can be slid onto the mixing tube to partially cover the primary air holes. A hose clamp may be used to hold the sleeve in place. If the hose clamp is wide enough, it can be used alone to cover the primary air holes.

In some cases, there is a gap be-

	Pressure	Jet Dia.	Notes
Small Burner	5-18 cm WC	0.5-0.7 mm	Use the original (butane) jet from the big burner
Medium Burner	4-10 cm WC	1.5 mm	
	10-20 cm WC	1.2 mm	
Large Burner	4-9 cm WC	2.5 mm	The 2.5 mm tends to give off a stronger odor of sulfur
	9-20 cm WC	2.0 mm	
	20+ cm WC	1.5 mm**	

Note: Some 3-burner butane stoves have more restrictive gas valves than the "FORT GAZ". These stoves will require higher gas pressure and possibly larger gas jets.

**Two burner heads were used. See figure 10.

ICE Almanac

ICE Director
Maureen Delaney

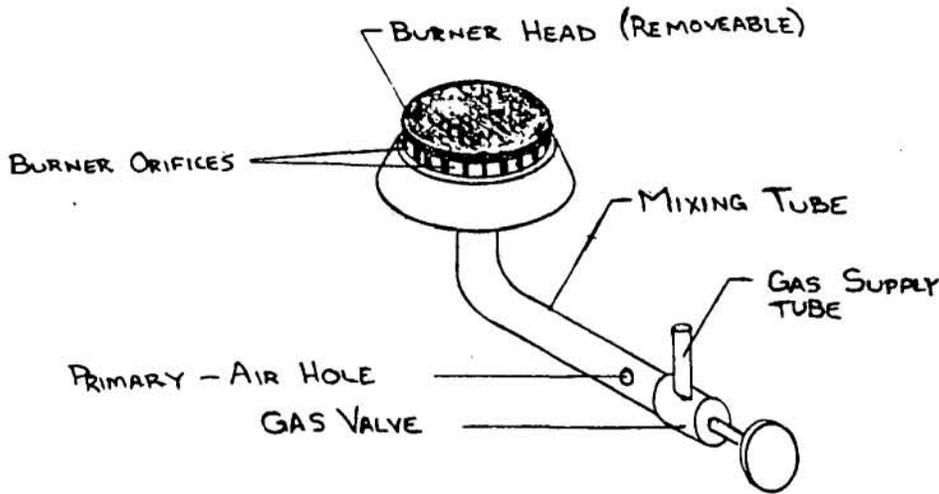
Editor
David Thomas

Networking
Trish Heady

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. Contributions, requests for technical information or correspondence concerning the ALMANAC should be sent to: Peace Corps, ICE, Rm. M-707, 806 Connecticut Ave., NW, Washington, DC 20526.

Fig 3 STANDARD BURNER (STOVE 4)



tween the mixing tube and the gas valve that allows too much primary air to enter. With the medium and small burners, it may be necessary to cover this gap with a metal sleeve or hose clamp.

- **Raising of the Pot**—Since biogas burns more slowly than butane, it is helpful to raise the pot 2.5 to 3 cm above the burner head. This can be done by welding or riveting extensions on to the pot support. This should be done to the large and medium burners.
- **Adding Secondary Air Ports**—It was found that piercing several holes or slots in the stove base around the burner slightly reduced the smell of sulfur when the stove was operating. Holes or slots can be drilled or chiseled around the large and medium burners.

Method for Adjusting the Primary Air on Stoves

The primary air should be adjusted either at the pressure of utilization for constant-pressure digesters, or at 5-10 cm of water column for variable-pressure (chinese) digesters. In general, the burner will work well at pressures or gas flow rates lower than that for adjustment, but not necessarily those higher. This means that if the pressure is above the pressure used for adjustment, the flow rate should be reduced by partially closing the burner's gas valve.

1. Place a pot of water on the stove. (The absence of a pot can change the flame characteristics.) Protect the stove from any wind.
2. Cover primary air ports.
3. Light the burner and slowly uncover the primary air ports. If the flame begins to either go out or to detach from the burner head, adjust the primary air (slowly cover the air ports) until the flame again becomes stable.
4. Allow the burner to heat itself for several minutes and readjust the primary air ports if necessary.
5. If certain sections of the flame tend to extinguish themselves

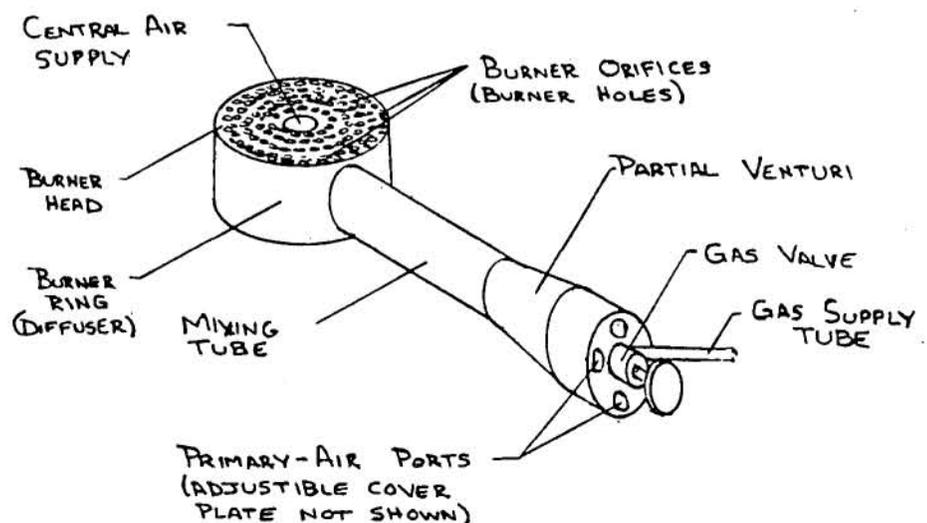
even after the primary air ports are closed, try raising the pot slightly. If the flame seems to burn better with the pot at a different level, modify the pot support to hold the pot at this new level. It should be noted that the greater the distance between the burner head and the pot, the more the flame will be affected by wind.

Stoves may require readjustment from time to time to compensate for changes in the gas composition and for corrosion of the jets and burners.

General Operating Information for Burners

- Practical maximum flowrates for the large biogas burners tested were 300 liters/hour to 400 liters/hour. Higher flow rates were possible, but in general, tended to yield lower gas usage efficiency.
- Above a certain flowrate, depending on the burner, the flame will move away from the burner and extinguish itself. Reducing the amount of primary air will allow a burner to operate at a higher biogas flowrate, but will make the flame longer. If the flame is long enough to touch the bottom of the pot, a strong odor of sulfur or of biogas will be produced. The useful gas flowrate of some burners is limited, therefore, to a level where this odor is unobjectionable.

Fig 4 RING BURNER (STOVE 2) FROM



- Adding more burner holes or enlarging the existing ones can increase the maximum biogas flowrate or allow more primary air to be added to the flame. Adding holes on the top of the burner head for the modified butane stove, however, did not reduce the odor of sulfur produced in operation. Using two burner heads as shown in figure 10, and using smaller gas jets at a pressure of 20-25 cm WC did work, however.

- Reducing the diameter of the gas jet can increase the amount of primary air drawn in by a stove. A smaller jet, however, requires a higher gas pressure to produce the same gas flowrate.

- Jets need to be inspected periodically for corrosion and clogging. Jets may require replacement after a time.

- Burner orifices need to be unblocked periodically as they tend to get clogged by dirt and food.

Guide to Troubleshooting Stoves

Several common problems are listed here. Their causes and solutions are listed in the order found during the testing. It is recommended to try the solutions in the order listed here.

Problem	Possible Cause	Proposed Solutions
Burner will not ignite	1	A
	2	B
	3	B, C
	4	D
Flame too big. Flame does not burn underneath pot	2	B
	5	E, I, F, G, H
	6	I, J
Flame detaches from burner and moves away	2	B
	3	C, H
	4	D
Flame pulses	7	K

Causes	Solutions
1—No gas flow	A—Verify that there is sufficient gas pressure or look for and clear gas blockage
2—Gas flowrate too high	B—Reduce gas flowrate (partially close valve)
3—Too much primary air for the gas flow rate	C—Partially cover primary ports
4—Carbon dioxide content of gas too high	D—Wait until digester produces a higher methane-content gas
5—Too little primary air	E—Uncover primary air ports
6—Too little secondary air	F—Enlarge Primary air ports
7—Water in gas line	G—Use a smaller diameter jet
	H—Enlarge or add burner orifices
	I—Raise pot
	J—Add secondary air ports around burner
	K—Remove water from gas piping

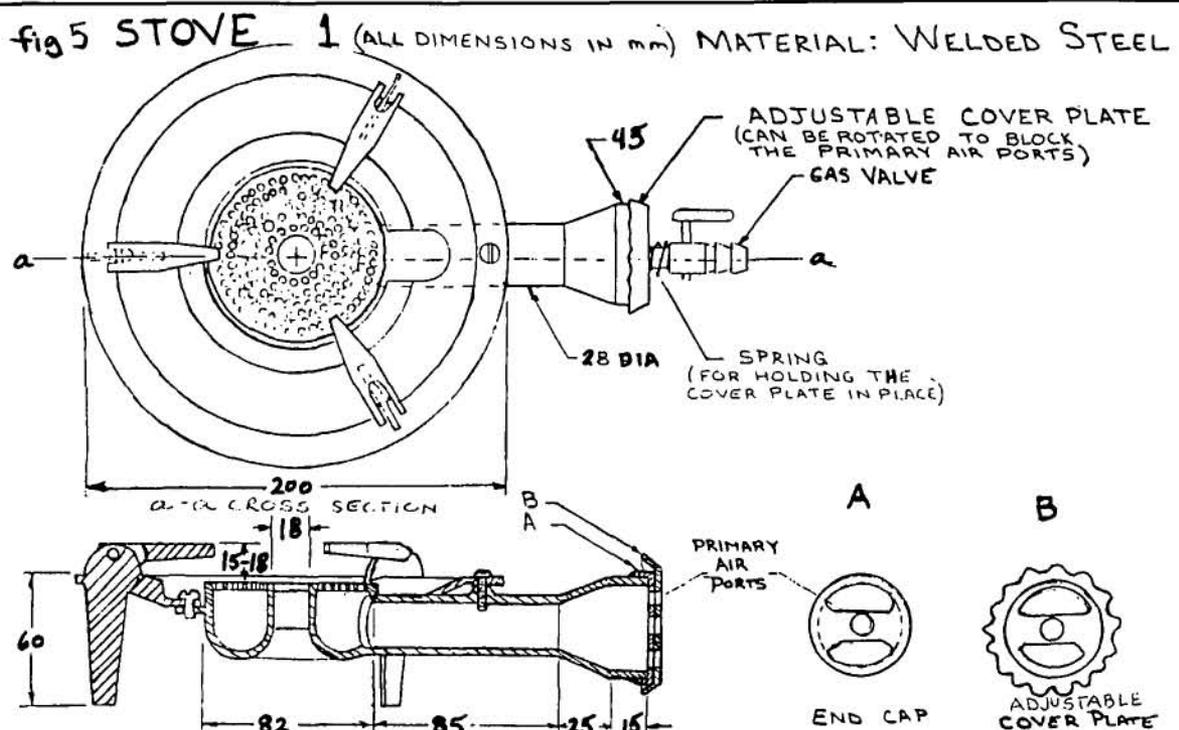
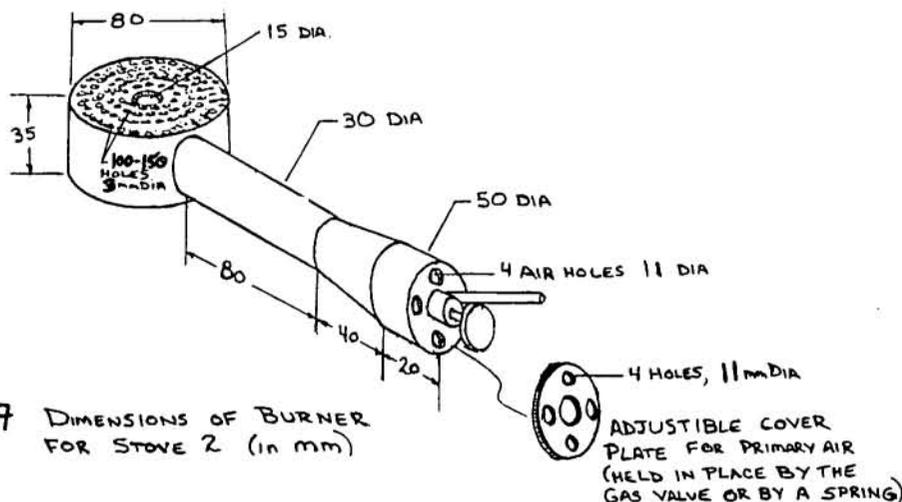
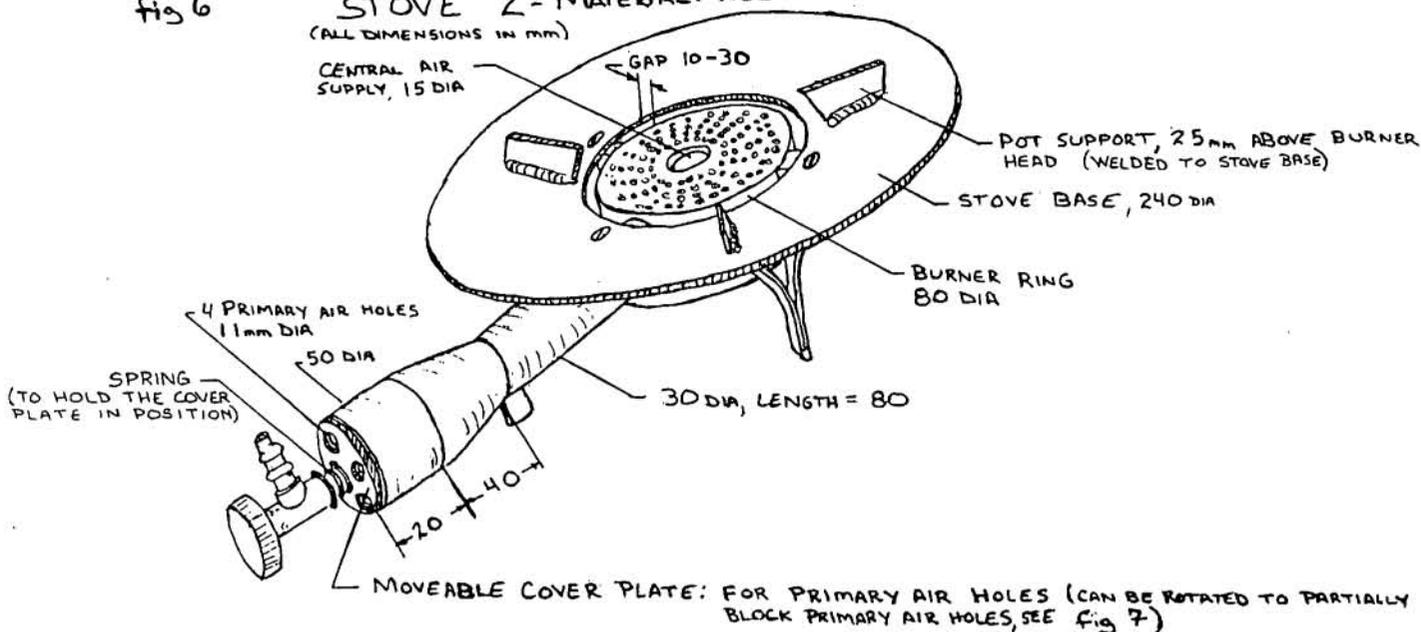


fig 6

STOVE 2 - MATERIAL: WELDED STEEL
(ALL DIMENSIONS IN MM)



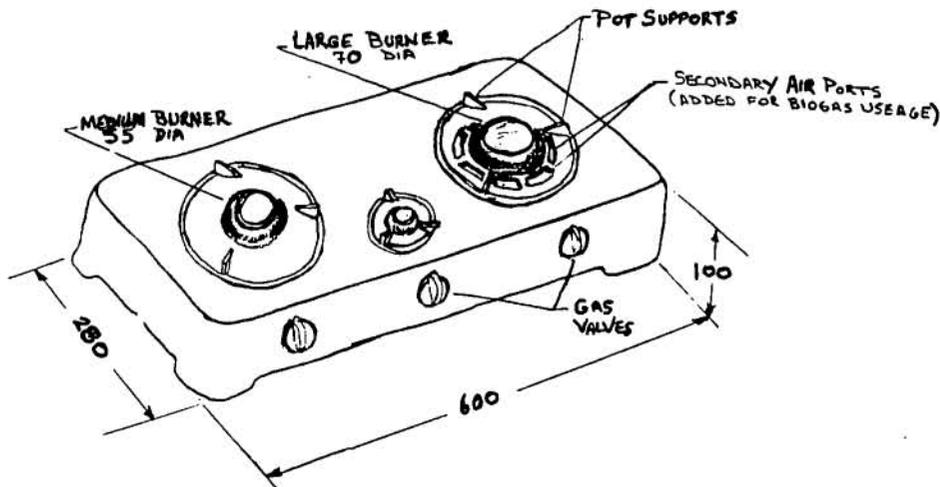
GIVE!

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!

fig 8 STOVE 4
(ALL MEASUREMENTS IN MM)



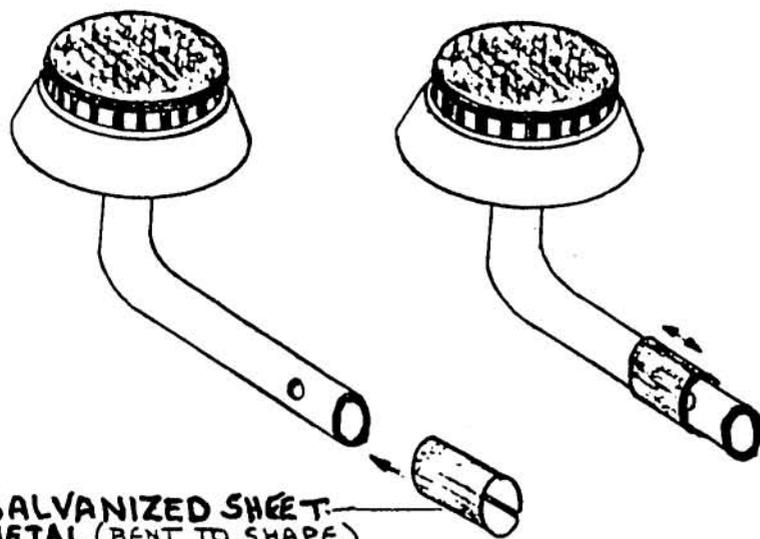


fig 9 REGULATION OF PRIMARY AIR BY USING A SLEEVE (STOVE 4)

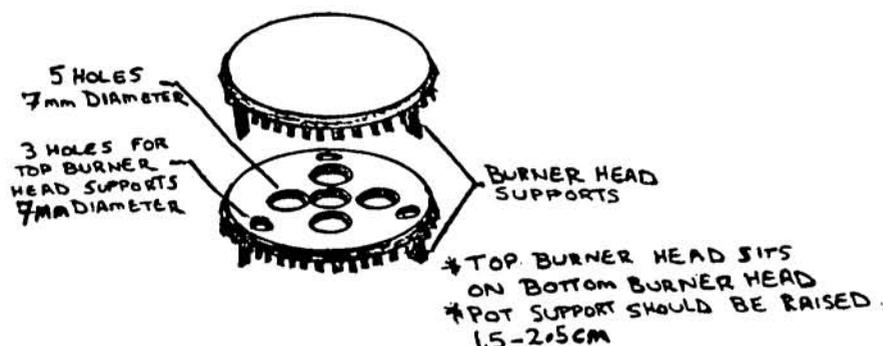


fig 10 USE OF 2 BURNER HEADS TO INCREASE THE ORIFICE AREA OF STOVE 4 (LARGE BURNER)

Small Project Assistance Program (S.P.A.)

The S.P.A. Program is a unique program which joins the human resource capabilities of the Peace Corps and the financial resources of the Agency for International Development. The program, established in 1983, currently supports small self-help efforts through direct grants to community organizations in 35 countries.

There are two components to the S.P.A. program: the S.P.A. fund which directly supports community projects; and the Technical Assistance (T.A.) Agreement which provides training and technical advice to PCVs, staff and Host Country Nationals who are working on field projects.

S.P.A. grants are made by PC/Country Offices to community groups working with PCVs in the areas of food production, small enterprise development, renewable energies and health.

Funds are available through PC/Washington to provide in-service training for PCVs and HCNs, and to provide program consultants for countries. The T.A. activities stimulate and/or directly support S.P.A. projects.

If you have an idea for a project in your community in one of the above areas, more information is available from PC country offices or by writing the S.P.A. Coordinator, OTAPS, PC/Washington.

NETWORKING

International Bee Research Association

Information on beekeeping is important to Peace Corps Volunteer beekeepers as well as to Volunteers looking for a secondary project or who are planning to teach an interesting science topic. One of the best sources of beekeeping materials in the world is the International Bee Research Association (IBRA). IBRA was established in 1949 and is primarily

supported by its membership and governmental sources. IBRA exists to promote the scientific study of bees by providing information, analysis, and advisory services on both scientific and practical aspects of apiculture. IBRA currently produces a range of materials that could be of use to research scientists as well as generalist school teachers. Certain

categories of these materials are free to requestors from developing countries. In addition to its own publications, IBRA also distributes more than 100 beekeeping titles from other publishers.

Availability of the different types of materials is outlined in 3 different lists from IBRA. The leaflet, *Information for Beekeepers in Tropical &*

Subtropical Countries, details special rates for requestors from developing countries. Among the free materials listed are a series of 10 *Source Materials for Apiculture (SAM)* leaflets which include such titles as *Educational Aids on Apiculture*. Please specify if you need the English, French or Spanish edition of the leaflets.

Over 37 different bibliographies are listed in the 3 series of bibliographies. Some bibliographies of interest are *Beekeeping in Northern Latin America* and *Beekeeping Management and Equipment in the Tropics*. IBRA also provides its semi-annual *Newsletter for Beekeepers in Tropical & Subtropical Countries* on a complimentary basis to approved institutes in developing countries. The "Newsletter" highlights beekeeping activities in different developing countries, is a forum for beekeeping news and events, and also includes a book review section. Select institutes, libraries, and resource centers in developing countries may also receive certain other materials free of charge.

IBRA publishes over 150 titles covering the following areas of interest: beekeeping and bee breeding techniques, honeybee behavior, honey-



bee anatomy, pollination, bee products, beekeeping in the tropics, bee forage, beekeeping history, early English beekeeping books, bee diseases and enemies of bees, human allergy to bees. IBRA also produces 3 quarterly journals: *Bee World*, *Apiculture Abstracts*, and *Journal of Apiculture Research*. IBRA members receive *Bee World* free of charge. Leaflet 01 explains current IBRA membership and subscription rates to IBRA journals.

Filmstrips, slide sets, wallcharts, posters, and other audio-visual beekeeping aids are described in List 3. Included in this list is a two course presentation on "Introductory Apiculture" and "Tropical Apiculture" produced by the University of Guelph, Canada. These courses contain illustrated text, filmstrips and

viewers, and commentaries on cassettes.

In addition to providing information, IBRA is also interested in any locally produced materials and important research. IBRA maintains one of the most comprehensive collections on apiculture in the world. If you identify any excellent apiculture documentation, the IBRA library would be grateful for copies. IBRA does provide information services through its information officer for tropical apiculture who is funded by the British Overseas Development Administration. However, please continue to direct your inquiries or problems related to beekeeping to ICE for answers or referrals. ICE has purchased in bulk some of the titles distributed by IBRA. Check the *Whole ICE Catalog* before ordering directly from IBRA. For information on any of the lists or materials described in this article, write directly to IBRA at:

International Bee Research
Association
18 North Road
Cardiff CF1 3DY
United Kingdom
telex: 23152, answer back MONREF
G ref 8390

IN-COUNTRY RESOURCE CENTER NETWORK

ICE conducted the third in the world-side series of In-country Resource Center Workshops, March 7-10, 1987, in Lilongwe, Malawi, for Anglophone African countries. The first Workshop was held in Kingston, Jamaica, for the Inter-America Region, April 21-23, 1987, and the North Africa, Near East, Asia and the Pacific Workshop was held in Manila, the Philippines, July 7-10, 1987. The purpose of these Workshops is to improve the accessibility of information to Volunteers and staff. As part of the Workshop, participants generate a list of "best ideas" that they learn from each other. Below are some of these ideas from all the Workshops thus far.

(Continued on page 27)



Participants at the ICE In-Country Resource Center workshop in Lilongwe, Malawi, formulating their action plans.

Sector Updates

New ICE Publications

MANUALS

Directives Relatives A L'Elaboration De Programmes De Conseil En Gestion Pour Petites Entreprises. French version of M-14, *Guidelines for Management Consulting Programs for Small-Scale Enterprises.* 1986. 235pp.

Pautas Para Programas de Asesoramiento Gestional Para Microempresas. Spanish version of M-14. 1986. 218pp.

La Apicultura de Pequena Escala. Spanish version of M-17, *Small-Scale Beekeeping.* 1986. 212pp.

Apiculture de Petite Echelle. French version of M-17. 1986. 213pp.

Crianza Practica de Aves. Spanish version of M-11, *Practical Poultry Raising.* 1986. 288pp.

Elevage Pratique de la Volaille. French version of M-11. 1986. 289pp.

Cultivos Tradicionales. Spanish version of M-13, *Traditional Field Crops.* 1987. 542pp.

Cultures Traditionnelles de Plein Champ. French version of M-13. 1987. 497pp.

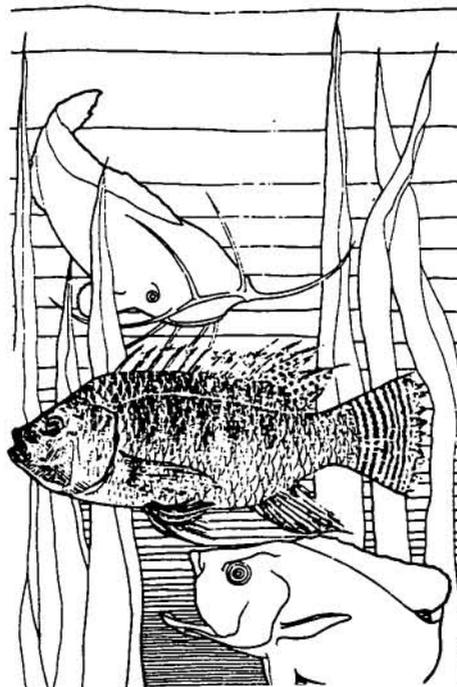
Culture et Gestion d'Etangs a Poissons d'Eau Douce. French version of M-1B, *Freshwater Fish Pond Culture and Management.* 1987. 213pp.

REPRINTS

Chinese Biogas Digester: A Potential Model for Small-Scale, Rural Applications. (Charles H. Nakagawa and Q.L. Honquilada) Thorough description of a Philippine biogas project. Provides basic knowledge and guidance for the construction and operation of a small-scale, family size biogas unit. Includes benefits of installation and a general overview of the construction process: structural features/considerations, planning/preparation, site consideration, and operation and maintenance

provisions. Contains numerous sketches, design diagrams, appendices, and a reference bibliography. 1981. 92pp.

Simon Eleve des Poissons. (Developed by Peace Corps in collaboration with the FAO, and OTC) A simple picture book describing the raising of fish. A how-to of fish pond construction. Includes tips on agriculture/aquaculture projects, feeding and harvesting of fish, cleaning and draining the pond. Well illustrated, easy to understand. 1985. 40pp.



English/Spanish Glossary of Health and Nutrition Terms. (Susan Hewes, APCD/Guatemala) For improving language proficiency in areas of health and nutrition. Includes slang terms to adapt language for regional variations. 1985. 64pp.

Guia Practica: Como Manejar Abejas Africanizadas. (Robert Bailey and Douglas Anderson) Discusses beekeeping equipment and methods, including beehive construction and dismantling. Covers characteristics of African bees as compared with European types. Addresses various disease symptoms, general management. Illustrated. 1986. 55pp.

Horticultura Intensiva de Vegetales Para Ganancia y Autosuficiencia.

Spanish version of R-25, *Intensive Vegetable Gardening.* 1986. 215pp.

Culture Maraichere Intensive Destinee a la Vente et a la Consommation Domestique. French version of R-25. 1986. 227pp.

RESOURCE PACKETS

Cooperativas. Series of booklets written in Spanish covering cooperative principles, financial management, coop education and organizations providing assistance in cooperatives. (Spanish of P-5, *Cooperatives*) 1986.

All manuals listed above are available to all PCVs and staff. Single review copies are also available to host country counterparts.

TRAINING MANUALS

Survival Kit for Overseas Living: For Americans Planning to Live and Work Abroad, by L. Robert Kohls. 1984. (Intercultural Press, Inc., P.O. Box 768, Yarmouth, Maine 04096) 95pp. \$6.95.

A practical, lively guide filled with do-it-yourself instructions on how to best handle a cross-cultural experience. Explores what questions to ask about a host culture. Strategies for living in a developing country and for managing culture shock are discussed.

Available free through ICE to PC staff and others involved in the training of PCVs.

From the Field: Tested Participatory Activities for Trainers, compiled by Catherine D. Crone and Carman St. John Hunter. 1980 (World Education, 1414 Sixth Avenue, New York, N.Y. 10019) 148pp. \$15.00.

Designed as a resource for trainers working in the international field. A book of activities and exercises to elicit group participation. At the beginning of each exercise, describes the particular occasion and reason the activity was used including duration of exercise. Activities are set

in rural settings but can be adapted to an urban setting.

Available free through ICE to PC staff and others involved in the training of PCVs.

Teacher Training: A Reference manual, by The Center for International Education. 1986 (Peace Corps/ICE) 176pp. Free.

Developed for PCVs involved in teacher training in a wide variety of subject areas. Designed to be used with the *Teacher Training Guide* that accompanies it. Gives a model for a complete training program broken down into daily sessions. The aim of the book is to upgrade a teacher's understanding and practical application of basic educational theory. Covers everything from lesson planning and materials development, to classroom management and assessment of student progress.

Available free through ICE to PC staff and others involved in the training of PCVs.

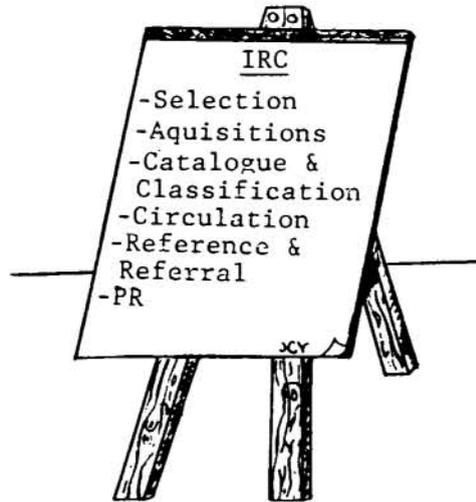
Teacher Training: A Training Guide, by The Center for International Education. 1986 (Peace Corps/ICE) 249pp. Free.

Accompanies the *Teacher Training Reference Manual*. May be used for training PCVs and for training host country teachers. Proposes an adaptable, intensive training session to develop effectiveness and understanding of educational principles. Covers objectives, lesson planning, techniques, materials development, classroom management, and assessment.

Available free through ICE to PC staff and others involved in the training of PCVs. PCVs request through your APCD.

In-Country Resource Center Workshop: A Training Manual, by CHES and Associates, Inc. and PADCO, Inc. 1986 (Peace Corps/ICE) Free.

Workshop session schedule. Lists materials needed, overview, preparation, objectives and procedures for each session. Designed to help PCVs



and staff establish, expand, or improve resource centers appropriate to needs and conditions in their country. Includes master copies of necessary handouts, as well as an evaluation form.

Available free through ICE to PC staff and others involved in the training of PCVs.

In-Country Resource Center Procedures Manual, revised edition, by CHES and Associates, Inc. and PADCO, Inc. 1986 (Peace Corps/ICE) 118pp. Free.

Spells out recommended procedures with suggestions and alternatives for resource management decisions. Covers space and equipment, staffing, acquisitions, resource management, and correspondence files. Includes glossary and ICE classification system appendices.

Available free through ICE to PC offices/resource centers in country only.

In-Country Resource Center Self-Instructional Manual, by CHES and Associates, Inc. and PADCO, Inc. 1986 (Peace Corps/ICE) 133pp. Free.

Schedule of assignments for managers of PC in-country resource centers. Covers funding and material procurement, improvement of an information management system, guidelines for materials storage, and circulation policies. Outlines objectives, materials, and exercises in each chapter.

Available free through ICE to PC offices/resource centers in country only.

Technical Guidelines, from: *Nutrition Improvement Through Mixed Gardening*, Paul Sommers. 1984 (Peace Corps/ICE) 69pp. Free.

Excerpted from *Nutrition Improvement Through Mixed Gardening*, to be used as a handout for Volunteers in PST and IST gardening/nutrition training programs. Covers characteristics and functions of multi-layer mixed gardens. Includes how to determine household nutritional needs and what crops fulfill those needs. Contains information on units of measure, pest and disease control, and a trouble-shooting guide for common crop problems.

Available free through ICE to all PCVs and staff working in related projects. Request though your APCD or trainer.

Technical Guidelines and References: Crops Training Component, from T-38, Volume III, Crops. 1985 (Peace Corps/ICE) 164pp. Free.

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.

To be used in conjunction with *Agricultural Development Workers Training Manual, Volume III, Crops*. A handout for Pre-service trainees, very useful after training has been completed. Contains information on units of measure and conversion, surveying and interpreting the agricultural environment, troubleshooting common crop problems, guidelines for growing vegetables, and insect and pest control. Includes a bibliography of crop production references.

Available free through ICE to all PCVs and staff working in related projects. Request through your APCD or trainer.

Guidelines and References: Livestock Training Component (Small Animal Husbandry), from T-38, Volume IV, Livestock. 1985 (Peace Corps/ICE) 308pp. Free.

To be used in conjunction with *Agricultural Development Workers Training Manual, Volume IV, Livestock*. A handout for Pre-service Trainees, very useful after training has been completed. Contains food, nutrition, reproduction, and disease information on swine, rabbits, poultry, and goats. Includes a record keeping/field notebook guide.

Available free through ICE to all PCVs and staff working in related projects. Request through your APCD or trainer.

Agriculture Marketing Principles, prepared by Soil and Land Use Technology, Inc. (Peace Corps/ICE) 100pp. Free.

Holistic approach examines commodity flow from producer to consumer. Emphasizes variety of means in content presentation, and contains numerous examples and demonstration suggestions. Many praxis learning activities distributed over 11-day format, each outlined with objectives, techniques, and materials needed. Topics include market familiarization, commodity marketing systems, and information collection. Visuals, bibliography, appendices and other supporting materials.



From In-Country Resource Center Self-Instructional Manual

Available free through ICE to PC staff and others involved in the training of PCVs.

Small Scale Charcoal Making: A Manual for Trainers, by Farallones Institute Rural Center, CHP International, and the Peace Corps. 1982 (Peace Corps/ICE) 120pp. Free.

Training in all stages of development technology related to small scale charcoal production. Intertwines fundamental development themes (developing and transferring technical competence, methods, and approaches to problem solving, etc.) with various aspects of design, construction, operation, maintenance, and evaluation of prototype kilns. Material organized in a 6-day, 20-session format emphasizing activities to meet specific training objectives. Step-by-step planning and training preparations are enumerated, as well as reference sources.

Available free through ICE to PC staff and others involved in the training of PCVs.

Water and Sanitation Technologies, by Bradley D. Hanson. 1985 (Peace Corps/ICE) 369pp. Free.

Contains the basic curriculum for a Peace Corps Water and Sanitation Pre-Service Training Program. Integrates technical training with community organization techniques. Consists of 222 total hours of training

for a 6- to 8-week training program. Adaptable according to training needs. Useful as the principle training guide or in conjunction with the *New Role of the Volunteer in Development*, for a complete PST.

Available free through ICE to PC staff and others involved in the training of PCVs.

PROGRAMMING

The Bold Experiment, by Gerard T. Rice. 1985 (Harper and Row Publishers, Inc., Keystone Industrial Park, Scranton, PA 18512) 349 pp. \$15.95.

A history of the Peace Corps. Focuses on the first few years in the early 1960's. Discusses goals, policies, and principles. Highlights precedents, Capitol Hill battles, bureaucracy, and image. Good background into where Peace Corps came from and why.

Available free through ICE to PC offices/resource centers in country only.

Integrated Programming System, Office of Training and Program Support. 1986 (Peace Corps/ICE) 142pp. Free.

An updated, condensed version of the *Peace Corps Programming Systems Handbook*. Assists PC programmers in planning, developing, implementing, supporting, and eval-

Books, Books, Books

To reduce inventory due to the purchase and publication of new technical materials, the following publications are being offered to Volunteers and staff on a **First Come, First Served** basis.

AGRICULTURE

- AG044 – Western Fertilizer Handbook
- AG115 – Families of Vegetables

APPROPRIATE TECHNOLOGY

- AT015 – Village Technology in Eastern Africa
- AT020 – Rainbook: Resources for Appropriate Technology

COMMUNITY DEVELOPMENT

- CD006 – Peace Corps Collaboration 1980–1981

EDUCATION

- R0049 – The Role of the Peace Corps in Education in Developing Countries

ENERGY

- EN046 – Welding, Maryland State Instructional Guide
- EN007 – A Design Manual for Water Wheels
- EN010 – Energy for Development: Third World Options (World Watch Paper #15)
- EN014 – Low Cost Development of Small Water Sites
- EN021 – Wind and Windspinners: A Nuts and Bolts Approach to Wind Electric Systems
- EN023 – River of Energy: The Hydro-power Potential
- EN026 – L'Energie Et Le Developement Rural
- EN029 – The Solar Almanac

NATURAL RESOURCES/FORESTRY

- FC064 – La Protection Des Zones Naturelles
- FC088 – La Proteccion De Las Zonas Naturales

- R0045 – Volunteer Notes on Reforestation

HEALTH/NUTRITION

- HE030 – Health, Population and Nutrition Systems in LDCs
- HE054 – Health Care Guidelines
- HE056 – Medicine and Public Health: Development Assistance Abroad
- HE072 – Health Through T.E.F.L., A Guide for Africa
- HE079 – Health: A Time for Justice
- HE087 – A Guidebook for Family Planning Education
- HE145 – Teaching and Learning With Visual Aids
- M0008 – Community Health Education in Developing Countries
- R0001 – Health Education: A Study Unit on Fecal-Borne Diseases and Parasites
- R0016 – Combatting Hansen's Disease

SMALL ENTERPRISE DEVELOPMENT

- SB066 – Credit and the Small Borrower: Bridging the Gap Between Borrowers, Lending Programs, and Funding Sources
- SB026 – Employment and Development of Small Enterprises
- SB047 – Handicrafts II: A Case of Promotion

WOMEN IN DEVELOPMENT

- WD010 – Village Women Organize: The Mraru Bus Service
- WD015 – Women in Development: A Resource List
- WD022 – Funding Resources for Women in Development Projects
- WD041 – Manual D'Information pour La Femme En Afrique
- WD045 – Recursos De Financiamiento Para Proyectos De La Mujer En Desarrollo

uating projects. Deals with PC development philosophy and mission, programming standards, steps required in thorough project planning and evaluation, roles and responsibilities of PC staff and collaborating personnel, and an explanation of required program documentation.

Available free through ICE to all PC staff responsible for programming activities.

The Field Director's Handbook, edited by Brian Pratt and Jo Boyden. 1985 (Oxfam Publications, 274 Banbury Road, Oxford OX2 7D2, England) 512pp. \$24.95.

Based on the philosophy that the most effective form of development is the development of people, not technologies. Reflects the Peace Corps criterion that program/project beneficiaries must be active in all phases of development activity. Very useful in conjunction with the *Integrated Programming System* manual. Contains programming guides in field methodologies, social and economic development. Includes specific guides to programming in agriculture, health, and disaster preparedness and response. An excellent programming tool.

Available free through ICE to PC offices/resource centers in country only.

(In-Country from 23)

- Assign a host country national with information-handling experience the responsibility of managing the collection.
- Acquire audio-visuals in Spanish or other local languages.
- Hold a reception to inaugurate the opening of the resource center, or host an open house.
- Use the Peace Corps in-country newsletter for two-way communication.
- Network with other information providers in country to build collections and improve services.
- Prepare an annual report to keep staff and Volunteers informed of past accomplishments and future initiatives.

