PEACE CORPS TIMES

Focus—Man

May-June 1986

Advice In Botswana Applies Everywhere

Recently we received a copy of an article from the *Gaborone Daily News* in Bostwana reporting on the swearing-in of a new group of PCVs, which we would like to share with all Peace Corps Volunteers.

Volunteer's task is to reinforce—Kgomanyane

Gaborone: The task of Peace Corps Volunteers in Botswana is to reinforce what is already in progress, to generate and win the people's support for new ideas as well as assisting officers to translate any such new ideas or proposals into policies.

This was indicated by the Chief Education Officer for Secondary Schools Mr. G. Kgomanyane when he addressed a swearing-in ceremony for Peace Corps held at the Woodpecker Restaurant.

Mr. Kgomanyane advised the volunteers to eventually work themselves out of the jobs that they have been called upon to do here, adding that he was only making such a comment to those who are in Botswana to assist locals to do their jobs better and not to seek long term employment.

While developing countries are known to be racing against time in their efforts to develop, Mr. Kgomanyane said the volunteers would be surprised by the leisurely or pedestrian pace at which their counterparts go about their duties. He cautioned them that they might find themselves frustrated by inordinately slow administrative processes or what appear to be deliberate and necessary bureaucratic roadblocks.

The chief education officer said he wished to draw the attention of the Peace Corps to the need to temper all their hopes, idealism and naivete that they may be bringing along with a great measure of realism.

Mr. Kgomanyane expressed the Botswana government's gratitude for the invaluable and generous assistance given by the volunteers in Botswana. Mr. Kgomanyane said the symbolism behind the oath of dedication and commitment by the Volunteers inspire education authorities here with hope and confidence that those who freely took the oath are well meaning and unreservedly committed to their decisions and undertakings.

* *

Of the 30 Volunteers at the ceremony who ranged from 22 to 80 years of age, 28 are education Volunteers, one is assigned as a rural industrial officer and another is a technical officer for small business.

From the Director

"There are no easy choices," is a phrase we often hear because it's so often true. And never was it more evident than when the panel met to select the Volunteers of the Year to represent all current Volunteers at our special 25th Anniversary Celebration in Washington, D.C., this September.

As you know, each country was invited to nominate a Volunteer for this honor. The nominees were:

NANEAP: Christine Rossi, Tunisia; John Girdley, Sri Lanka; Joni Unruh Fornelli, Seychelles and Karen Gerdes; The Philippines.

INTER-AMERICA: Kathleen McCullough, Ecuador; Maria Mojica, Paraguay; Vernon Kelley, Costa Rica; Kathryn Clark, Jamaica; Helen Fentress, Eastern Caribbean; Steve Singer, Dominican Republic and Dave and Kathy Sandhage, Belize.

AFRICA: Donald Beckley, Niger; John Lamoureaux, Central African Republic; Peter Trenchard, Burundi; Mark Buccowich, Rwanda; Dennis Michael, Tanzania; Joseph Johnson, Burkina Faso; Barry Hicks, Cameroon; John Stephenson, Liberia; Scott Lamont, Sierra Leone and Martha and James Poell, The Gambia.

After a week of study, the panel had the very difficult task of chosing one Volunteer to represent each of the regions. Representing NANEAP will be **Karen Gerdes**, a health Volunteer in Bataan, The Philippines. **Maria Mojica**, a native of Puerto Rico, and special education Volunteer in Paraguay, will represent the Inter-America Region. And, **John Beckley**, an agriculture/appropriate technology Volunteer in Niger, was chosen to represent the Africa Region.

It gives me great pleasure to help honor these Volunteers because they are symbolic of all of you and the work you do. Thank you for that work for peace.

Loret Miller Ruppe

* *

Editor's Note: On May 7, 1986, Loret Miller Ruppe Celebrated her 5th year as Director of the Peace Corps. She continues to say, "I have the best job in Washington, I get to work for world peace, travel and everyone thanks me for the work of the Volunteers!"

Peace Corps Times

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To the Times

Dear *Peace Corps Times,*

I'm doing some ethnobotanical/nutritional research and I believe volunteers throughout Africa could be a great help to me.

I'm trying to get an idea of the range of a condiment made from fermented seeds. This condiment is available all over Burkina Faso where I served. It was the product of three days preparation of *Vitellaria paradoxa* (neré) or *Acacia macrostachya* seeds. In my area, these seeds were fermented and formed into balls 2–10 cm in diameter. They had quite a strong odor.

Volunteers—Is this food found in your country, everywhere or just in some places? If so where? If it's not available, please tell me that too. What is its local name and in what language? What plant species is used in preparation? Is it used in cooking often, occasionally or rarely?

Thanks in advance to all who reply.

Janet K. Miller
429 S. Railroad Ave.
Tucson, AZ 85701

Dear *Peace Corps Times,*

I read enthusiastically your publication of Sept./Oct./Nov., 1985 and I found it so interesting that I decided to write to you.

First, let me introduce myself. I'm called Ngolomba-ea-yonga-Bomolo, an English teacher in secondary school. I'm 27 years old, I've been trained for three years by Peace Corps Volunteers to teach English in all levels (from 3rd to 6th form). I'm very pleased to be trained as are my friends.

In fact, we thank Peace Corps for sending one English trainer every year. In my opinion, it's best to send us one English trainer instead of English teachers. We congratulate all Volunteers for their sociability. They have good relationships with Zairian English teachers and other teachers. Our congratulations and thanks go to Garry Steel, the Associate Peace Corps Director, for his advice during his visits to our sub-region.

Most certainly, we see that there's great progress with this training system. In our training program, we have a meeting every Monday. There we discuss methodology of teaching English ... vocabulary, grammar and others. What a good idea Peace Corps had!

Moreover, we were delighted when we received "English Teaching Forum" from Peace Corps. Again, we have two "syllabus," one for texts and another for grammar, written by PCVs in February of last year. How wonderful!

I think the only problem we have is the lack of materials, expecially books. PCVs have some books, but they are written in a sophisticated English. For Commercial School, English correspondence is recommended, but it's a big problem to get correspondence books. Would you like to help us with some?

We think it's best to work out the same system of training with science courses. We have many difficulties and we don't have the qualified teachers and appropriate books.

Ngolomba-ea-yunga-Bomolo
% Hsifo-Bokoka
Lycee Lontsing'Esengo
B.P. 15
BASANKUSU
R/Equateur
Republic du Zaire

To our Zairian friend,

Thank you for your very nice letter. You have many of the same problems several of the schools in Africa have, the lack of books. We have referred your letter to the Zaire desk and to the education specialists. Perhaps they will have some solutions to your problems.

We do appreciate your taking the time to write and tell us about the successes of Peace Corps Volunteers in your country.

A Silent Mission

A moment to pay tribute
to the silent mission
as it embraces a twenty-fifth commemoration.
It has tasted the frustration of failure,
seen the squalor of proverty,
smelt the listlessness of earth,
touched the tears of hunger,
and heard the voices echoing
of a less developed world.

A moment to acknowledge
the silent march of the soldiers.
Seen from the Himalayan mountains
through the Caribbean seas
to the Sahara sands,
voluntarily dedicated
to helping sow and irrigate the lands.
They've nursed the ill, schooled the starved,
educated and been educated,
advised and been advised.
Throughout, deserving,
yet not desiring praise or reward.

Take a moment to remember
The Peace Corps.
A silent mission
with a universal vision.

By Julia Perkins
PCV, St. Kitts
West Indies

Focus—Mali

Mali ... the word conjures up images of ancient caravans traveling across the Sahara to magical cities; images that were reality nearly a thousand years ago, but no more. Gone are the caravans which moved between the salt mines of Taoudenni to the great city of Tombouctou. Life in Mali today is not tied to the caravans and salt trade of the past but to the mighty River Niger which bisects the country west to east.

Mali is the cultural heir to the succession of ancient African empires—Ghana, Malinke and Sonhai—that occupied the West African savanna. These empires were well-organized political groups that brought security and prosperity to large regions. They based their strength upon control of Saharan trade and were in touch with Mediterranean and Near Eastern centers of civilization.

Malians take great pride in being descendents of these ancient kingdoms. (The word Mali means "where the king resides.") The Ghana Empire, dominated by the Soninke people and centered in the area along the Malian-Mauritanian frontier was a powerful trading state from A.D. 700 to 1075. The Malinke Kingdom of Mali, the Republic's namesake, had its origins on the upper Niger River in the 11th century. Expanding rapidly in the 13th century under the leadership of Soundiata Keita, it reached its height about 1325, when it conquered Tombouctou and Gao. The Sonhai Empire expanded its power from its center in Gao during the period from 1465–1530. The kingdom was destroyed by a Moroccan invasion in 1591.

French military penetration of the Soudan, the French name for the area, began around 1880. Mali was administered with other French colonial territories of the Federation of French West Africa. In 1858, Soudan became a member of the French Community and enjoyed complete internal autonomy.

In January of 1959, Soudan joined with Senegal to form the Mali Federation which became independent of the French. In September of that same year, Soudan proclaimed itself the independent Republic of Mali.

Mali Today

Life in Mali is inextricably tied to the River Niger. When the rains are generous and the waters run high, it soaks the paddies and fields along its banks and tributaries and becomes a

Susan Marks of Golden Valley, Minn., works in community development with the Centre de Formation des Animatrices Rural. Here she teaches a woman to build a wood-conserving, three-rock banco stove. (About one-third of all Mali Volunteers are involved in stove production.) They have made a strong construction material of clay, sand, termite soil, cow dung, straw and water. Marks hold a degree from Barnard College. (Mail photos by Carolyn Watson.)

Focus—Mali

Carrying water is a task Sally Sternal of Joliet, Ill., shares with the women of her compound in Sibila. Her assignment is community development and appropriate technology. She is a graduate of the University of Illinois, and a financial analyst for General Mills prior to Peace Corps.

rich feeding ground for fish. The Niger is also the prime transportation route, navigable from June to December by larger riverboats and by smaller craft throughout the year. The importance of the river was tragically demonstrated by the severe drought of the early 1970s when thousands died, livestock herds were decimated and fields dried up. Since that time, Malians have moved slowly toward recovery with the same indomitable spirit shown in centuries past.

A large majority of Malians live in the southern region along or below the Niger River. Most are small farmers. Only 10 per cent of Mali's people live in cities of more than 5,000.

Mali is a mosiac of ethnic groups. Each group generally has its own territory, occupation and language. The major group is the Bambara. The Fulani, Songhai, Tuareg and Moors are nomadic herdsmen who migrate seasonally in the north, searching for water and grazing for their livestock in the sparsely settled area of the Sahara. The Bozo tribe make their living by fishing.

The capital city of Bamako straddles the Niger in the south central part of the country, once more emphasizing the importance of that life-giving artery.

Peace Corps/Mali

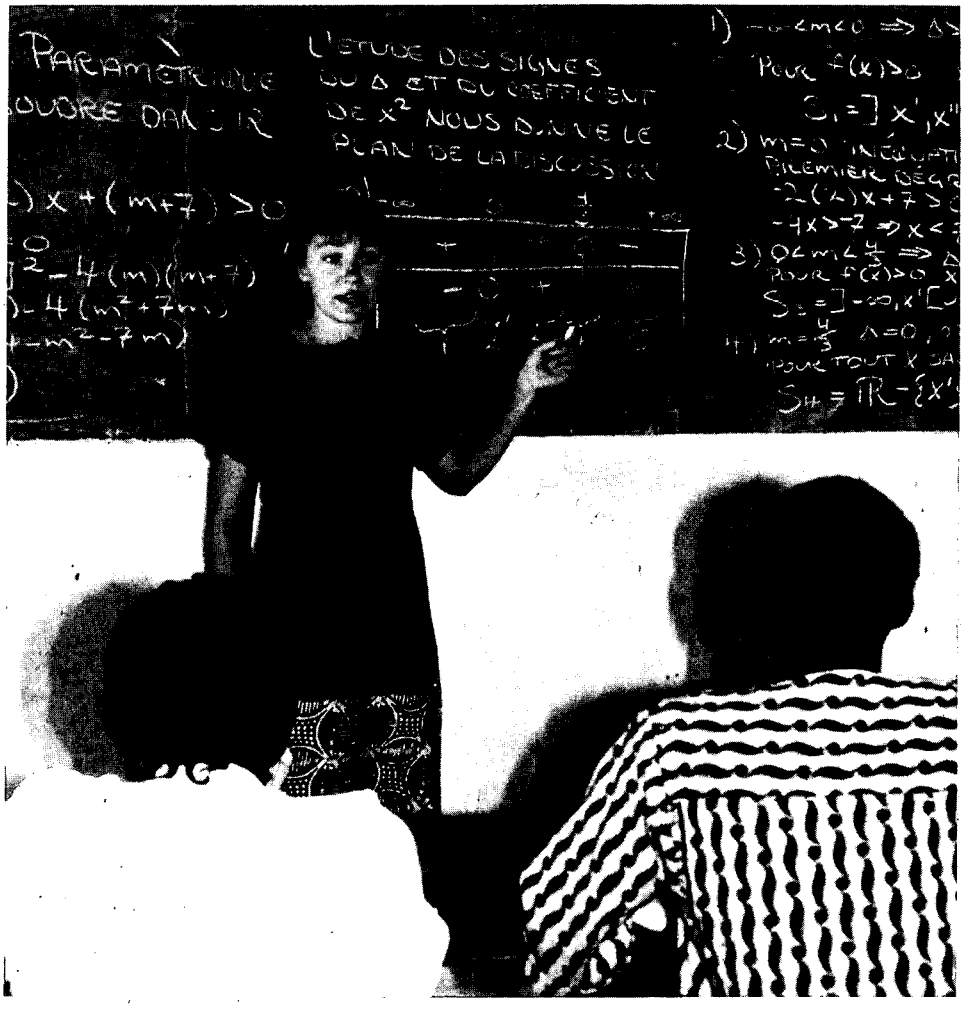
In comparison to Peace Corps' involvement around the world, Peace Corps/Mali is comparatively new. The first Volunteers arrived in Bamako in April of 1971 to help allay the hardship brought on by the drought. Twenty-five strong, they developed projects in poultry raising, vegetable production, water management and agriculture.

Currently, there are 75 Volunteers working in Mali in areas such as water resource management, forestry and renewable energy, fuelwood conservation, community development and education and health. An extensive agriculture program will begin later this year.

Due to the severe deforestation problems and lack of fuelwood, Peace Corps' largest project in Mali is **improved woodstove production.** Twenty-three Volunteers work in this field. Built with local materials such as adobe, the use of improved 3-rock and metal stoves is being promoted throughout the country.

In an effort to stem the problem of desertification and to replenish the fuelwood supply, 12 **forestry**

(continued on page 6)



PCV Kristen Edgar is a math teacher at the Lycee de Segou. Here she explains parametric inequalities. Edgar is from Hubertus, Wisc., and received her degree in math from Carleton College.

About the country ...

Population: 7.8 million
Land Area: 468,873 square miles, about the size of Texas and California combined
Cities: Bamako (capital), Kayes, Segou, Mopti, Gao and the legendary Tombouctou
Languages: French (official) and Bambara
Religion: Islam 80%, Animist 19% and Christian 1%
Terrain: Savanna and desert
Borders: Mauritania, Algeria, Niger, Burkina Faso, Ivory Coast, Guinea and Senegal.

Pamela Wessels of Hendersonville, Tenn., weighs a baby to monitor its growth at the Centre des Affairs Sociale in Sanankorba, as part of her secondary project. Wessels' primary assignment is in wood-conserving stove construction. She graduated from Connecticut College and holds a masters degree from the University of Iowa.

PCVs are working in the development of rural woodlots. Villagers are trained in managing these invaluable renewable energy sources.

Eighteen PCVs are at work in **water resource management** projects full time and many others work in this area as secondary projects. The goal of the water projects is to secure and improve existing sources of clean potable water in the rural areas as well as improving irrigation systems.

There are 16 Volunteers in the **education** area, seven teaching English and history at the normal university level. As the demand for English teachers has abated due to the ever-growing number of Malian teachers, Peace Corps' education focus has shifted to math and science with nine PCVs in the program.

Peace Corps has five Volunteers working in **rural credit and fiscal management** programs. They teach and organize classes in basic management skills and help set up small businesses. Volunteers also advise the National Institute for the Blind and the Mali Association of the Physically Handicapped.

One PCV devotes her time to **rural health education** teaching oral rehydration therapy, disease prevention and hygiene.

Despite being among the neediest countries in the world due to years and years of drought, Mali is generally thought to have sufficient under-exploited resources to make substantial improvements in the overall standard of living for its people. The Government of Mali hopes to achieve food self-sufficiency by the year 2000 and Peace Corps has designed its program to help meet that goal.

A graduate of Wake Forest University, William Gardiner works in community development in Dioro. Here he joins school children and their headmaster in the school gardens of the Ecole Fundamental. He will be building a library for this school.

About the cover

In Dougabougou, these three PCVs participated in the water resource management training program. Here they set posts for a well to be sunk in front of the village mosque. They are: Mark Abeles (foreground, with beard), a graduate of Kalamazoo College; Mark Holter (turban and sunglasses) of Minneapolis and a graduate of the University of Minnesota and Wade Harmon (foreground, with hat) of Avoca, Ark., who holds a degree from Northwestern University.

Small business advisor Mark Huet discusses fabric quality with the manager of a shop in Segou. Huet of New Buffalo, Mich., graduated from Central Michigan University. He received two masters degrees from Ohio University, one in international affairs and the second in African studies.

In the capital city of Bamako, Donald Lawder, college teacher at the Ecole Normal Superior, helps his students at the school library. The library was built by an earlier PCV. Lawder graduated from the Empire State University and received a masters in fine arts from Brooklyn College.

Odi Long Retires the Second Time

Most people, after retiring from 20 or 30 years of a satisfying career, look forward to a life of rest, relaxation and possibly a little travel. Well, Odilion (Odi) Long is just not like most people.

In 1967, when Odi retired from AT & T, he headed for a life of little rest and relaxation but a lot of travel ... he joined the Peace Corps. In January, Odi completed 17 years of Peace Corps Volunteer service and returned home. In March, Odi celebrated his 84th birthday.

During his 17 years as a Peace Corps Volunteer, Odi served in the African nations of Gabon, Togo, Sierra Leone and Burkina Faso. Three years ago, Odi transferred to the Caribbean country of Haiti to help in the new program there.

Of his work in Haiti, Odi said, "In my area, we repaired and extended a water system and now 60 people can take showers in their houses instead of walking three or four kilometers to get enough water for a bucket bath. We built a school and a community center too. I've always been a builer, I have to keep working. When you stop working, you get old."

Odi says he's had a complete overhaul since he finished his tour in Haiti. "I had surgery on my knee and that's doing nicely, got new glasses and dentures," he said. "I bought a recorder and some basic Spanish lesson tapes and I'm going to put an ad in the paper for a Spanish tutor."

Odi has his eye on Costa Rica, a place he intended to visit the first time he retired, back in 1967. So, in keeping up with Odi Peace Corps says, "Muchas gracias, Odi, for a job well done."

NVW Activities Huge Success

Hundreds of Returned Peace Corps Volunteers went back to school during National Volunteer Week, April 21–25. It was called the Back-To-School Initiative and returned Volunteers from Peace Corps countries all over the world went to schools in their communities to spread the word.

The program was organized and coordinated by Marilyn Charles and her staff from Peace Corps/ Washington. More than 500 information packets were sent out, hundreds of phone calls were made and an announcement was placed in "Hotline." All totaled, 27 RPCV groups were involved.

From the Atlantic to the Pacific, groups of returned Volunteers eagerly donated their time and country expertise. They showed slides and artifacts, some wore their Peace Corps country national dress and all shared their experiences with the students.

Jo Carol Walton of Louisville reported an enthusiastic 95 percent "yes" when she asked her organization of RPCVs if they would volunteer to speak in the schools. Her favorite of the reponses was this ... "Peace Corps experience is something I never tire of talking about ... I'll go to two schools!"

As a result of this awareness outreach program thousands of students know more about Peace Corps. It was so successful that similar events are being planned for the next four years, through 1990.

Your Volunteer experience doesn't end when you COS ... that's just the last of the first two Peace Corps goals. Goal three begins when you come home ... sharing, reminiscing and going Back-To-School.

A Colombia I Volunteer—Before, During and After

Tom Bentley, a 1956 architecture graduate of the University of Arizona, was working as an architect in Phoenix when Peace Corps came into being. He left what promised to be a successful and lucrative career to become one of the first Peace Corps Volunteers.

Except for time out to earn a masters degree and study for a doctorate, Bentley has spent most of his career in international work ... with CARE, refugee programs and Project Concern. This spring, 25 years after he became a Volunteer, he has come back to Peace Corps, this time as an Associate Director in Costa Rica.

The *Times* has asked Bentley to share some of his early memories of Peace Corps. The following is his account.

"The telegram was brief. It stated simply that I was invited to Peace Corps training for subsequent assignment in Colombia. It was signed, Shriver. It was a terse and official understatement given the significance of an invitation that would change my life.

"Some 90 young men responded to that invitation and became the first trainees to begin the long process of preparation for overseas service in the newly-formed Peace Corps. The year was 1961."

From Peace Corps' early records—Project Description: To help Colombia develop economic and social stability in its rural areas, improve the health of its rural population, increase farm productivity and raise rural educational and living standards, Peace Corps Volunteers, as members of Community Development teams, will live and work in towns and villages in the countryside. Their teammates will be Colombians trained in Community Development work. They will assist Colombian technicians in the fields of health, agriculture and rural education. They will work under the supervision and guidance of CARE, Inc., a private voluntary agency and in cooperation with the Division of Community Action of the Government of Colombia.

Why this project is important to Colombia: Rural community development is a priority task in Colombia, where the civil disturbances which came to an end in 1958, left behind many destroyed villages and mass shifts of the population to already overcrowded cities. A stable and improved rural society is thus an urgent development target. President Albert Lleras Camargo has characterized Peace Corps' future contribution as "the finest way in which the United States could prove to the humble people of this and other lands that the primary purpose of its international aid program is to build a better life in all of the free world's villages and neighborhoods."

"On Sunday, June 25, 1961, we arrived at Rutgers University in New Brunswick, N.J., young, single, idealistic (and even naive) men from all parts of the country, eager to begin our great new adventure.

With his counterpart (left) Ever Macias and villager (right) Bentley inspects plans for a water system in the village of Caracoli.

"Because no one had ever trained a Peace Corps group before there were no models to follow. This was many years before the days of CREST or CAST and even before the establishment of the Peace Corps training camps in Puerto Rico.

"Our training process was based on a straightforward academic approach. The training approach included lectures, followed by exams; followed by more lectures. We began to wonder if we were indeed in Peace Corps training or if we had erroneously enrolled in another term of summer school. Two months later we had the answer. On August 25, 62 trainees successfully completed the training and were sworn in as the first Peace Corps Volunteers. However, we were not the first PCVs in the field.

Villagers in Caracoli put the finishing touches to the concrete well liners for use in the wells as part of the new water system plan.

"History records that the first Volunteers went to Ghana. Rumors circulated in our group that political considerations had been weighed and that a decision had been made "high up" to hold back the Colombia group after training. Others had a less byzantine reason to offer. We were not too bright and therefore we needed a few extra weeks to let our training percolate. After what seemed like an endless waiting period, the 62 Volunteers of the Colombia I group boarded an Avianca Constellation in New York for the long night flight to Bogota and the next stage of our great adventure.

"At 2:30 a.m., on Sept. 8, the plane landed at Bogota's mile-high airport. There, the red carpet was rolled out for the first PCVs to walk on Colombian soil. The group was welcomed by President Alberto Lleras Camargo. Seven years later, another President, Francino Lleras Restrepo, would honor Colombia I and subsequent groups by awarding to the Peace Corps the prestigious Medal of Santander.

"In-country orientation of Colombia I Volunteers took place at the Colombian agricultural experiment station at Tibaitata, which we quickly dubbed "T-Tech." During all this our group was divided into teams of two Volunteers. Each pair was joined by a Colombian rural community development promoter. These promoters were to become more than counterparts, most became solid friends.

"The teams of two PCVs and a counterpart were first assigned to 29 villages and four cities throughout the country. We worked in collaboration with three host country agencies; the Division de Accion Comunal, the Comision de Valle del Cauca and the Federacion Nacional de Cafeteros. All of us were assigned to work as community development agents.

"Of the 62 Volunteers of Colombia I, 58 successfully completed two years of service to our country. Tragically, two Volunteers, David Crozier and Larry Radley, died in a plane crash. Two others left the program early.

"During our time in Colombia, five Volunteers were married, four to Colombians and one to a Volunteer from a later group (see photo).

"Years later we would be asked what we accomplished in Colombia. Usually the person asking the question is wondering how many latrines we dug or how many schools we built. Invariably, the answer is vague. The answer is often stated in terms of lives changed, friends made, dreams made into reality and hope rekindled.

"A second question often asked is if the results were worth all the effort? Each of us has a different set of results in mind when we answer that one, but invariably the answer is positive. All of us had our lives enriched by the experience."

At his first site, Armenia, Bentley (far right) with fellow PCV Larry Radley (next to Bentley) visit with villagers. Camp Radley, a Peace Corps training facility in Puerto Rico, was named in his honor.

PCV Elizabeth Marple and Bently were wed in April of 1963 in Barranquilla. Since their Volunteer service in Colombia, the Bentleys have lived in Costa Rica, Turkey, Lesotho and Liberia.

This is the final article in a series by Peace Corps Volunteers in Colombia, Ghana and Tanzania.

Peace Corps CASTs Spell On Couple

Peace Corps Trainees are given overviews of the culture, climate, language and even the foods of their prospective countries. At CASTs and CRESTs all sorts of information is given on such topics as proper medication, what kinds of sun screen to use, clean water and what types of insects carry what. But no training model includes much advice on the "love" bug.

Rose Beauchesne and Cleveland Charles had never heard of each other until they met at the CAST in Harper's Ferry in October, 1983. But, nothing has been the same since. They were bitten by the "love" bug at the CAST and were married in Sri Lanka a year later.

"Those kinds of intense experiences tend to bring people closer together, but our CAST seemed to have overwhelming drawing power for Cleveland and me," Beauchesne said. "We didn't have time alone together in Harper's Ferry but as often as possible during those eight days, all of our group would get together in the evening after our working day was over.

"When we all went back home I flew to Minneapolis for a weekend to visit Cleveland at the University of Minnesota before we were scheduled to go overseas ... just to see if our CAST romance was a reality. It was."

Charles, whose home is in Rock Island, Ill., was finishing his masters in geography. Beauchesne, a native of Methuen, Mass., had received her bachelors in English from Merrimack College in North Andover. Both were anticipating Peace Corps assignments as TEFL teachers in Sri Lanka.

After the initial language, cross-cultural and teacher training in Colombo, Charles and Beauchesne were stationed at teaching sites 72 miles from each other.

"It was a long, hot and bumpy six-hour bus trip every two or three weeks just to see each other. We took turns making the journey," Beauchesne said. "By September of the following year we were engaged and began making our wedding plans."

"To honor the Sri Lankan tradition of consulting astrologers about appropriate times to hold religious ceremonies or official meetings, we made an appointment with a local man who gave us a reading for an auspicious time to have our wedding. He based this on our birth dates, times and places. We declined his offer to read our fortunes, but in deference to Sri Lankan custom we did plan the Buddhist part of the ceremony for his suggestion ... exactly 5:02 p.m.," Charles said.

The newlyweds, Rose Beauchesne and Cleveland Charles, cut their special wedding cake.

The bride places the wedding band on her husband's finger during the Catholic ceremony. Father Fernandez blesses the couple as PCV Sondra Gharavi, maid of honor (center, back) looks on.

It took a lot of planning for the Catholic and Buddhist procedures. The couple consulted Sunil Edmunds, a local entrepeneur who owned a guest house, a barber shop, a shoe store, a florist shop and a typical third world grocery store that sells everything from tooth paste to tea and batteries to bicycles. (Sunil arranged for weddings, his brother did the funerals.)

Sunil catered to every possible need of the couple. He made the bride's sari, had the cake made and delivered (the batter for the fruit and nut pound cake had to "set" for a month) and took care of the flower arrangements for the church. He commissioned the stage for the Buddhist poruwa ritual, the decorations for the reception and even styled the bride's hair and played a role in the Buddhist ceremony!

Invitations were printed in Sinhala, Tamil and English, the three languages of the island, and sent to the guests. PCVs Sondra Gharavi and John Paul were invited to be maid of honor and best man.

Sunil had taken care of all the

plans. Everything had been carefully arranged, everything except unforeseen threats of local disturbances which caused the government to decree a curfew in effect at 6:00 p.m. on the wedding day. With restrictions on travel, many of the invited guests and all of Beauchesne's teacher-counterparts who lived 72 miles away, had to miss the event.

Immediately after the Catholic ceremony at St. Xavier's Church in the tea-covered hills in the central uplands at Charles' site in Nuwara-Eliya, the newlyweds and guests went to the Buddhist shrine that seventh day of December, 1984.

Since the reception was to continue past the curfew hour, people who did attend were fortunate enough to get special permission and passes from police to be allowed to drive after hours. Of necessity, many out of town guests left right after the ceremony.

In spite of the curfew the Buddhist poruwa wedding ritual proceeded as planned. A poruwa is a small, flower-decorated wooden stage where the bride and groom stand during the ceremony.

For more than an hour the couple were on public view by the congregation while the Buddhist elder performed the rituals. He chanted in Pali, the ancient and sacred Sri Lankan language. English translations and assistance were given by the ever present Sunil Edmunds and a choir of six little Sri Lankan girls sang traditional songs during the lighting of the oil lamp. As part of the observance, the couple fed milk-rice and cakes to each other and re-exchanged the rings from their Catholic ceremony. Symbolic of cleansing and bonding, their thumbs were tied together with thread then trickled with water from the wedding pitcher, poured by ... Sunil Edmunds. (See accompanying photo at right.)

As the ritual ended and they stepped down from the poruwa platform, a friend broke the wedding coconut. Tradition says if the split is directly in half, the marriage will be blessed. It was exactly in the middle!

Dinner was a feast of Sri Lankan favorites ... curries of fish, chicken, beef and vegetables with rice, hoppers (a kind of crepe with filling), string hoppers (spaghetti-like noodles made into patties) and pitu (a coconut/flour mixture steamed in bamboo sections). For sweets there were coconuts, bananas, mangoes, papayas and other delicacies including wattallapan, a creamy custard made with milk, eggs, brown sugar, cashews and raisins. And of course that luscious wedding cake of fruits and nuts that had been "setting" for a month.

The newlyweds honeymooned in Thailand, Malaysia and Singapore. On their return, both were reassigned to TEFL teaching positions in Galle, on Sri Lanka's southern coast.

Though certainly not a part of the careful planning done by the medical officers at that CAST in West Virginia, the Charleses succumbed to the love bug that bit them. And they did attain their own private, fourth Peace Corps goal ... a cross-cultural wedding in Sri Lanka.

Rose Beauchesne Charles and Cleveland Charles completed their tour in Sri Lanka in December, 1985 and have returned home where they are living and teaching in Methuen, Mass. It is presumed that Sunil Edmunds is still in Sri Lanka and available to do future Peace Corps weddings.

PCV and best man, John Paul (far left) watches Buddhist elder perform the finger-tying ceremony. Sunil Edmunds, wedding coordinator (far right) prepares to pour water from the official wedding pitcher onto the couple's fingers.

Good News For Ohio PCVs

Volunteers from Ohio, all 275 of you, are being given a break by the State of Ohio as of August 1, 1986.

In accordance with a new state law, if your driver's license expires while you're with Peace Corps you have up to six months after you COS to renew your license. Also, if you happen to be home while you are still a Volunteer—on emergency leave or as a medevac, and your license is expired, Ohio will still consider it valid. Please note that the new law is applicable ONLY within Ohio.

When you apply to renew your driver's license we suggest you take your Peace Corps Service certificate with you.

Note—this extension applies to your COS date. It does not mean six months after you return to the United States.

1986 Election Guide

In an effort to help you exercise your franchise and vote, we are publishing the 1986 Election Guide. Information kits on how to get absentee ballots from the various states have been mailed to your Country Director. Please contact your Country Headquarters for more information as soon as possible as the mail can move very slowly.

State	1986 Primary		Governor		U.S. Senate	U.S. House ✔	
ALABAMA	June 3/open		Wallace (D) ✔		Denton (R) ✔	2(R)	5(D)
ALASKA	Aug. 26/open		Sheffield (D) ✔		Murkowski (R) ✔	1(R)	
ARIZONA	Sept. 9/closed	+	Babbit (D) ✔	+	open	4(R)	1(D)
ARKANSAS	May 27/open		Clinton (D) ✔		Bumpers (D) ✔	1(R)	3(D)
CALIFORNIA	June 3/closed		Deukmejian (R) ✔		Cranston (D) ✔	18(R)	27(D)
COLORADO	Aug. 12/closed	+	Lamm (D) ✔	+	open	4(R)	2(D)
CONNECTICUT	Sept. 9/open		O'Neill (D) ✔		Dodd (D) ✔	3(R)	3(D)
DELAWARE	Sept. 10/closed						1(D)
DISTRICT OF COLUMBIA						nonvoting	1(D)
FLORIDA	Sept. 2/closed	+	Graham (D) ✔		Hawkins (R) ✔	7(R)	12(D)
GEORGIA	Aug. 12/open		Harris (D) ✔		Mattingly (R) ✔	2(R)	8(D)
GUAM			Bordallo (D) ✔			1(R)	nonvoting
HAWAII	Sept. 20/open	+	Ariyoshi (D) ✔		Inouye (D) ✔		2(D)
IDAHO	May 27/closed	+	Evans (D) ✔		Symms (R) ✔	1(R)	1(D)
ILLINOIS	Mar. 18/open		Thompson (R) ✔		Dixon (D) ✔	9(R)	13(D)
INDIANA	May 6/open				Quayle (R) ✔	5(R)	5(D)
IOWA	June 3/closed		Branstad (R) ✔		Grassley (R) ✔	4(R)	2(D)
KANSAS	Aug. 5/closed	+	Carlin (D) ✔		Dole (R) ✔	3(R)	2(D)
KENTUCKY	May 27/closed				Ford (D) ✔	3(R)	4(D)
LOUISIANA	Sept. 27/open			+	open	2(R)	6(D)
MAINE	June 10/open	+	Brennan (D) ✔			2(R)	
MARYLAND	Sept. 9/closed	+	Hughes (D) ✔	+	open	2(R)	6(D)
MASSACHUSETTS	Sept. 16/open		Dukakis (D) ✔			1(R)	10(D)
MICHIGAN	Aug. 5/open		Blanchard (D) ✔			7(R)	11(D)
MINNESOTA	Sept. 9/open		Perpich (D) ✔			3(IR)	5(DFL)
MISSISSIPPI	June 3/open					2(R)	3(D)
MISSOURI	Aug. 5/open			+	open	3(R)	6(D)
MONTANA	June 3/closed					1(R)	1(D)
NEBRASKA	May 13/closed	+	Kerrey (D) ✔			3(R)	
NEVADA	Sept. 2/closed		Bryan (D) ✔	+	open	1(R)	1(D)
NEW HAMPSHIRE	Sept. 9/open		Sununu (R) ✔		Rudman (R) ✔	2(R)	
NEW JERSEY	June 3/open					6(R)	8(D)
NEW MEXICO	June 3/closed	+	Anaya (D) ✔			2(R)	1(D)
NEW YORK	Sept. 9/closed		Cuomo (D) ✔		D'Amato (R) ✔	15(R)	19(D)
NORTH CAROLINA	May 6/closed			+	open	5(R)	6(D)
NORTH DAKOTA	June 10/closed				Andrews (R) ✔	at large	1(D)
OHIO	May 6/closed		Celeste (D) ✔		Glenn (D) ✔	10(R)	11(D)
OKLAHOMA	Aug. 26/closed	+	Nigh (D) ✔		Nickles (R) ✔	1(R)	5(D)
OREGON	May 20/closed	+	Atiyeh (R) ✔		Packwood (R) ✔	3(R)	3(D)
PENNSYLVANIA	May 20/closed	+	Thornburgh (R) ✔		Spector (R) ✔	10(R)	13(D)
PUERTO RICO						nonvoting	1(D)
RHODE ISLAND	Sept. 10/open		DiPrete (R) ✔			1(R)	1(D)
SOUTH CAROLINA	June 10/open	+	Riley (D) ✔		Hollings (D) ✔	3(R)	3(D)
SOUTH DAKOTA	June 3/closed	+	Janklow (R) ✔		Abdnor (R) ✔	at large	1(D)
TENNESSEE	Aug. 7/open	+	Alexander (R) ✔			3(R)	6(D)
TEXAS	May 4/open		White (D) ✔			10(R)	17(D)
UTAH	Aug. 19/open				Garn (R) ✔	3(R)	
VERMONT	Sept. 9/open		Kunin (D) ✔		Leahy (D) ✔	1(R)	
VIRGIN ISLANDS			Luis (I) ✔			nonvoting	1(D)
VIRGINIA	June 10/open					6(R)	4(D)
WASHINGTON	Sept. 16/open				Gorton (R) ✔	3(R)	5(D)
WEST VIRGINIA	May 13/closed						4(D)
WISCONSIN	Sept. 9/open		Earl (D) ✔		Kasten (R) ✔	4(R)	5(D)
WYOMING	Aug. 19/closed	+	Herschler (D) ✔			1(R)	at large

R = Republican **D = Democrat** **I = Independent** **IR = Independent Republican Party** **DFL = Democratic-Farmer-Labor Party**
✔ = up in 1986 **+ = not running for re-election**

ICE ALMANAC

From the Field

The PCV and Traditional Medicine/Morocco

The following article is excerpted from the introduction to a study done by Judy Wurtzel, PCV/Morocco. The study was undertaken because of frustration due to a lack of knowledge of Moroccan medical and disease terminology.

The original report lists many Arabic terms which Wurtzel translated into English and French. Wurtzel also attempts to list herbs used in Moroccan traditional medical practices. Further, she lists ailments, their traditional and western remedies and an analysis of the effectiveness of the traditional treatments.

Though Wurtzel writes about being asked for, and giving medical advice, Only professionally-trained health care Volunteers have the knowledge to diagnose and treat most health problems. Non-health care PCVs may do so only within the strict guidelines learned during training. Bad advice is worse than no advice.

However, Wurtzel's study (which resides in the ICE Resource Center) could help PCVs in Morocco better understand the cultural aspects of traditional vs modern medical practices. In this context the study should be helpful to Volunteers in other countries who encounter such dual medical systems.

Visiting a neighbor, you are told that one of the children in the family is ill and you are asked if you have any "American medicine." However, because you do not understand the words she is using to describe the illness, you show your sympathy, give your hope for the child's recovery (complete with a dozen 'insh allah's) and finish your tea. Or, waiting in the school courtyard between classes, you notice that one of your students is limping. You ask him about it and he shows you an infected wound on his leg. You recommend that he soak it in hot, soapy water and then evaluate it. He seems to agree. But when you ask him about it a few days later he admits that he has not tried your suggestion.

While few of us work specifically in health care in Morocco, we are sometimes asked for, or see a need to give, health care advice. As a result of either our health-conscious American upbringing, or our obsessive rereading of *Where There is No Doctor,* we often know enough about health care basics to give helpful advice. However, we are at times stymied in our efforts because we rarely know the vocabulary to discuss illneses and remedies. Furthermore, because we generally know so little about the health care system and health beliefs in Morocco, we can not give advice in a manner that conforms to preexisting concepts of health care. Therefore, much of our well-intentioned efforts are misunderstood or ignored.

In Moroccan society two health systems coexist uneasily, traditional and western. Often an ill person will try a traditional remedy and then turn to western medicine only if the traditional fails. Or, he may follow western medical procedure, but supplement it with folk remedies. Or, he might feel comfortable with neither type of medicine and therefore not get any treatment. If, when we give medical advice, we take into account both the specific traditional remedies that the ill person is likely to be using and his general psychological stance in the face of a particular illness, we can attempt to integrate our advice with the preexisting traditional beliefs.

Obviously not all illneses can be treated with traditional medicine. The most common illnesses in Morocco today are TB, typhoid fever, rheumatic fever, schistosomiasis and infectious skin diseases. All of these demand specific treatment. But, if you want to convince someone who uses traditional medicine to go to a hospital or to follow a certain treatment, you are more likely to be successful if your advice is a function of what she already believes.

Peace Corps and Moroccan Health Care

From my perspective, Moroccans often approach Peace Corps Volunteers for medical help because neither of the two major systems of health care in this country seem to be psychologically adequate. In the minds of many Moroccans a formerly secure concept of traditional medicine has been threatened and displaced by the growth of modern western medicine. Some question the efficacy of traditional remedies as they see the results achieved at the hospitals and with medicines bought at the pharmacies. Some have come to disbelieve the basic premises of traditional medicine.

Yet, while faith in traditional medicine has weakened, it has not always been replaced by a complementary acceptance of the modern medical system in Morocco. Hospitals are, by their nature, rather freightening and disorienting for patients. Associated with illness and death, hospitals are defined, especially for many older Moroccans, as places where people go to die. Entering a hospital is tantamount to inviting death.

All too often the modern medical system does nothing to alleviate these problems. Indeed, the intersection of traditional culture and modern medicine exacerbates the problem. The modern system is founded on the French model. Therefore, when patients enter the system they are, in effect, entering a foreign culture. In addition, they often encounter a foreign language since much of the medical profession conducts its work in French. Furthermore, in Berberphone areas this problem is compounded since

(continued on next page)

both French and Arabic are foreign languages. It is rare that hospital personnel, particularly doctors, are from the region and speak Berber.

Also, the modern medical system is very impersonal and has not adapted itself to traditional concepts of the patient/doctor relationship. The traditional healer treats the whole individual; he is a spiritual and psychological as well as a physical healer. The healer is usually a deeply rooted member of the community and knows the patients as an individual and not merely as a package of symptoms. In this role the healer respects the modesty of his patients. He usually does not perform physical examinations (although this is also often true of hospitals) and he speaks about illness in a language couched in religious terminology and modest euphemisms. A serious difficulty is that women patients especially are embarrassed and fear exposing their physical illnesses—either verbally or physically—to a strange man. This alone prevents many women from seeking modern medical advice even if they are seriously ill.

Finally, hospitals and clinics often are not adapted to local economic conditions. For example, doctors in Morocco tend to prescribe several drugs for one illness. Most patients are told to purchase a plethora of drops, pills, injections, syrups and suppositories. Yet many can hardly afford to buy one medication, much less three or four. A patient rarely has the expertise, or even the necessary precondition—desire—to analyze their prescriptions, nor to decide which is the most important and effective. Therefore, patients often inadvertantly buy the less important medications or buy nothing at all.

Since some Moroccans may feel uncomfortable with both the traditional and the modern system of medicine, some turn to Peace Corps Volunteers for advice and medical aid. As PCVs we share the cachet that some Moroccans attach to foreigners. Because we are foreign we are thought to have superior knowledge of, and access to, western medical technology. This knowledge is the same as that which is seen residing in the hospitals. But because we are individuals and not institutions we are much less forbidding. Someone who distrusts and fears hospitals, yet has either tried a traditional remedy and found it lacking, or has no faith in the traditional system, sees in the PCV a third alternative.

The type of person who is likely to turn to the PCV for assistance undoubtably varies. Yet it does seem that within the Moroccan social structure certain groups are more likely to seek aid than others. A traditionalist won't ask because he is still rooted in folk medicine and rejects the western system, and the modernist won't because he has accepted the modern system. Those towards the middle of the spectrum usually will be most likely to ask for aid and to accept advice from Volunteers. This includes those with a little education and a relatively uncritical view of westerners but who have a lingering fear of western medical institutions. (Because of this acceptance, non-health care PCVs should take great care not to give advice which could be harmful to the patient.)

I have also found that women seem more likely to ask for help than men. This may be because I am a woman and discussions of health problems occur almost exclusively in a single-sex environment. It is also because women occupy themselves with the health of their children and ask advice for them. Another reason is that in Moroccan culture men are often embarrassed to talk about personal illnesses because that can be construed as immodest and a sign of weakness.

Religious Considerations

When a PCV gives advice to a Moroccan it is likely that the ill person has already tried some traditional remedies. For common illnesses, remedies such as herbal teas, etc.... are generally known. In these cases the women in the family will usually prepare and administer the medications. For less common illnesses, or when common remedies fail, a traditional Moroccan will often go to the fkih.

The fkih is a religious figure. He has a thorough knowledge of the Koran and often recites in the mosque or teaches the Koran to young children. Some fkihs are also healers. The fkih interviews the patient and his family and recites verses of the Koran over the patient to determine the cause of the illness. The cause can be something physical and identifiable (eating contaminated food, a change in the weather, etc.) or come from a religious and magical cause (you are ill because you have been cursed by God or afflicted by the evil eye).

In the first case the fkih will prescribe certain herbs and practices to follow. The fkih does not sell herbs. Rather, you buy them from a herbalist (attar) who sells his wares from a shop or at a souk. In the second type of diagnosis herbal medicines may also be used, but healing rituals associated with religious and magical beliefs are much more important. The fkih may prepare a talisman using traditional designs and formulas, recite Koranic chants addressed to specific evil spirits called djinns or advocate tatoos, bleeding or ritual burning of the skin with a hot stick.

ICE Almanac

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

Information Collection and Exchange (ICE) is Peace Corps' central technical information unit. As such, ICE provides a means of collecting and sharing the best results of Volunteer programs in the field. Volunteers are encouraged to contribute information to the ICE ALMANAC or ICE Resource Center. Contributions, requests for technical information or correspondence concerning the ALMANAC should be sent to: Peace Corps, ICE, Rm. M-707, 806 Connecticut Ave., NW, Washington, DC 20526.

In this study I have looked only at those treatments which are used for illnesses with identifiable, physical causes. This is not because I think that the religious and magical elements are unimportant. (Rather, I think that belief in the cure—whatever the cure is—is crucial to curing.) However, the religious and magical treatments form a subject which few foreigners are qualified to write about and which few Moroccans are willing to discuss openly. Fkihs do not want to give away their secrets. Others fear that you may be skeptical and patronizing towards their traditional beliefs. They may also feel that a stranger has no right to be investigating such subjects.

In addition, I have not always tried to unravel the complexity of factors affecting health beliefs and health care. Health beliefs and health care are not isolated phenomena. They are embedded in a cultural matrix determined by a myriad of factors. Changing one element within the system entails alterations of the entire system. If you destroy someone's belief that kohl can cure conjunctivitis the ramifications can be large. Also, health beliefs and health care are, of course, entwined with methods for the prevention of illness such as improved hygiene, sanitation and nutrition. The remedies given (in the original report) are just that—remedies—not preventive measures and not fundamental improvements in health standards.

Studies of traditional medicine often are taken up with an attitude of condescension. To productively study the subject we should try to avoid the common prejudice that technological superiority implies cultural superiority. For while western culture does have more scientific knowledge and technical skills to combat illness, its understanding of illness in its psychological and cultural context is not necessarily more profound.

Temperature Relations

All cultures have standardized, mythified explanations for illness. Americans usually explain illness within the powerful paradigm of science. In Morocco, explanations can be based on magic, God's will, science or a system of temperature relations. Many common ideas about illness are based on a theory of hot and cold in the body. Derived from the humeral theory of Galen and Hippocrates, the theory was transmitted to the Arab world by the 11th century physician Ibn Sina (known in the West as Avicenne). This theory was later carried to both Hispanic and Asian cultures.

The theory supposes that there is a balance of hot and cold within the body. We are ill when the equilibrium is destroyed. Therefore, when you are cold you must balance your system with something hot and vice versa. According to Ibn Sina, fire and air are hot while earth and water are cold. In traditional Moroccan lore such things as fish, dried vegetables and teas with absinthe are hot while mint tea, eggs, fruit and milk are cold.

What we would consider one illness might be thought of as two by Moroccans—one caused by hot and one caused by cold. For example, a stomach ache can be cold, caused by drinking cold water, or it can be hot, caused by eating bad food. A continuous fever is hot while an intermittent fever is cold.

Things are hot and cold not by virtue of their temperature but according to their structure. When giving medical advice it is generally not useful to argue against beliefs such as these. They are deeply rooted and provide an important sense of psychological control.

These traditional beliefs are not unaffected, though, by the influx of western thought into Morocco. Educated Moroccans have learned about western conceptions of health and illness. In the colleges and lycees students learn basic health and sanitation concepts. School children can recite rules about how illness is caused by germs and how a common glass spreads contagion. However, often this education does not destroy, or even undermine, traditional beliefs. A child only rarely can convince a parent that a cold is contagious or that a fly is a carrier of disease.

For example, the pharmacist in my town sells modern medicines but also uses traditional medicine for himself. He believes that modern medicines are generally more effective and specific than traditional medicines. However, he explains that modern medicines are usually purified forms of the chemicals in traditional herbs. While occasionally true, generally this helps him reconcile these two systems.

The question of how specifically to adapt medical advice to the Moroccan cultural context is a difficult one. Strategies must be tailored to each individual case. For example, if the mother of a child who has diarrhea does not believe in feeding the child a lot of fluids but does see the efficacy of herbal teas, we can try to increase the amount of tea she gives the child. But, Moroccans asking for medical help often want miracle drugs which will cure them instantly. Usually we do not have any, nor are we professionally trained to diagnose and treat most illness and disease.

What we do have is common-sense advice, much of which is similar to popular Moroccan practice. With the proper vocabulary and an understanding of Moroccan concepts of health we can try to communicate that advice. If we can, we will have accomplished something.

The feature for the next issue will be from the education sector. Currently, Peace Corps has some 1800 Volunteers involved in some aspect of education.

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.

Feature

Water: The Essential Element

"Water is an integral part of peoples' lives," says Sarah Ford, a former public health/water Volunteer in Zaire. Whether scarce or plentiful, of good quality or poor, water resources directly affect human health, agricultural output, livestock production, and, thus, the economic and environmental conditions of developing countries throughout the world.

Well over half of the population of the developing world—over one billion people—lack safe drinking water, while nearly three-quarters of these people do not have even the most rudimentary sanitation facilities. The situation in individual countries can be even more extreme. For example, in Sierra Leone it is estimated that only 2% of the rural population has access to potable water. The existing water sources there are primarily streams, springs, open wells, and swamps and, for the most part, these sources are contaminated.

Because many diseases, such as cholera and typhoid, are waterborne, it is not surprising that a lack of clean water has serious health consequences. The World Health Organization (WHO) estimates that over 50,000 people die everyday from lack of clean water and/or improper sanitation facilities. Also, 80% of the world's diseases are related to poor sanitation and unsafe water supplies. Diarrhea alone claims over 16,000 lives per day in the developing world, most of whom are small children.

In addition to being polluted, water supplies may also be inaccessible, and the burden of fetching water from far-away sources falls almost exclusively on women and children. The time needed to get water, in conjunction with the health problems resulting from its poor quality, can have certain economic consequences. For example, Phil Jones, Peace Corps' Sector Specialist for Agriculture, states, "When people have to spend a great deal of time securing water, this means less time that they're going to be able to work in the fields. If you can cut down on the time involved in getting water, agricultural output is going to increase."

Similarly, the U.N. Inter-Agency Task Force on Women and Water estimates that in one Asian country 73 million working days are lost every year due to water-borne diseases and/or a contaminated water supply. The annual cost to that country, in terms of medical treatment and lost productivity, has been estimated at about U.S. $60 million.

In response to this grave situation, the United Nations General Assembly passed a resolution in November, 1980, declaring the decade of the 1980's as the *International Drinking Water and Sanitation Decade*, with the goal of providing potable water and adequate sanitation facilities for all people by 1990. International efforts encouraged by this resolution to improve the quality of water include the installation of pumping devices, wells, and water catchment and delivery systems. Projects are also underway to upgrade sanitation conditions, such as the testing and treatment of water, improved vector control and health education campaigns, and the installation of human waste disposal systems.

The shortage of water in the developing world not only endangers the health and well-being of its people; it also hinders agricultural practices such as irrigation, reforestation, soil conservation, and animal husbandry. In the Republic of Mali, a resource-poor Sahelian country, many village wells dry up each year. Therefore, it has become increasingly difficult for Malian farmers to meet their daily water needs for human and animal consumption as well as for crop production. Indeed, in many regions of the world, increasing crop and livestock production is possible only through improving the availability of water.

While the scarcity of water creates one set of problems, too much water creates another. Abundant rainfall can prove to be devastating to many tropical countries. Seasonal monsoons and heavy rains pose constant threats of floods and soil erosion. Thus, water management practices such as field drainage and flood control are critical to the survival of the community.

Peace Corps' Response

In response to requests from governments around the world, the Peace Corps in the past 20 years has assigned over 4000 Volunteers to a wide variety of water supply and environmental sanitation projects. Water/Sanitation Volunteers serve as hydrologists, engineers, irrigation technicians, construction workers and supervisors, mechanics, health educators, surveyors and community development workers. They have collaborated with a myriad of host country ministries, private voluntary organizations (PVOs) and international development agencies. The work of these Volunteers has gained recognition from heads of state, government officials and other development workers.

In 1985–86, a total of 415 Volunteers will be involved in 50 projects in 34 countries. Peace Corps Volunteer accomplishments are many:

- In the Dominican Republic, the construction of a rural aqueduct that provides potable water to several thousand people was recently completed. Other Volunteer activities in that country include the training of farmers in the effective use of water, the construction of wells, the installation of water pumps and the management of existing irrigation projects.
- In Liberia and Sierra Leone, Volunteers are involved in swampland irrigation projects to increase rice production.
- In Thailand, PCVs participate in the construction of earthen dams, concrete spillways, canals, wells and even roads and bridges.
- Water Volunteers in Nepal focus on developing gravity-fed water-supply systems and improving sanitary conditions. Many other PCVs, working in other sectors, are involved in water-related secondary projects.
- Water Volunteers in Morocco, collaborating with range management, agriculture, and renewable energy Volunteers, devote their efforts to the installation of pumping systems,

such as handpumps and windmills, hydraulic rams, photovoltaic systems, and diesel-driven units. Although Morocco's water program is relatively new, it has proven to be one of the most successful Peace Corps efforts in the country.

"An essential element to all Peace Corps programs is the training of Host Country Nationals. Anything we do has got to include the training of counterparts."—Jim Bell, Sector Specialist for Water and Sanitation.

The involvement and commitment on the part of the Volunteers is matched by the dedication on the part of Peace Corps' staff in the field and in Washington. In 1979, the Peace Corps established the Water and Sanitation Sector in the Office of Training and Program Support (OTAPS) in order to facilitate and improve necessary program assistance.

According to Specialist Bell, the purpose of the Sector is to "... promote the development and management of water resources and environmental sanitation activities at the village, regional, and national levels through the efforts of Peace Corps Volunteers and Associate Peace Corps Directors (APCDs)." To accomplish these goals, the Sector Specialist:

- Assists Peace Corps country staff in developing and improving programs;
- Provides technical assistance in the area of Water/Sanitation, and by visits to project sites;
- Designs and implements preservice and in-service trainings;
- Identifies appropriate consultants for special tasks
- Collaborates with other development agencies such as the U.S. Agency for International Development (U.S.AID), the World Bank, the World Health Organization (WHO), UNICEF, Catholic Relief Services, and CARE.

Indeed, the Water/Sanitation Sector provides a wide variety of technical support. The nature of that support depends to a great extent on local climate, available resources and geography. These factors can vary not only from one country to another, but even within a single country. Therefore, the Sector Specialist is faced with the challenge of providing the most appropriate assistance for any number of different environments.

Says Bell, "Obviously, what we are doing in Sahelian Africa is different from what we're doing in tropical Africa, Latin America or the NANEAP region." For example, the use of hand-dug wells for the supply of water may be appropriate in a rural village in Niger but totally inappropriate for the same purpose in Honduras, where the construction of a gravity-fed system from a nearby spring would be a better use of local resources.

Agricultural practices are dependent on these varied hydrogeological conditions as well. Soil composition and the availability of surface water are just a few of the variables that determine the most appropriate type of irrigation system needed, whether it be for small household gardens or large plots of land.

Regional factors such as the availability of services, manufacturing capabilities and the level of a country's institutional and infrastructural development must also be taken into consideration when initiating a project. "In Latin America, it's possible to build a handpump in the country itself because you've got the machine shops and the foundries," says Bell. "But in Africa.... often it's not possible to build these things because of the infrastructural constraints."

Support for such a vast array of projects in these diverse settings is also provided by other sectors. Projects in water supply, sanitation, health education and water for agricultural purposes are closely interrelated in Peace Corps programming. The integration of these areas is essential to the success of water/sanitation projects.

"It is often hard to pull out one component and say that this is a sectorial program," says Bell. "Some of them are, but I think that in many projects there's always an overlap of sectors where we are working together. Inherent in having a sectorial approach to programming and training is that sometimes we can be too narrowly focused. In OTAPS, my experience has been that we are doing a very good job—a better job than we have done in the past."

Examples of this integrated approach can be seen most clearly in the realm of training. In May and June, water resource Volunteers destined for Mali will be participating in a six-week stateside training program where they will be learning the basic principles of forestry, soil conservation, agriculture and water resource management. According to Bell, the purpose of such an approach is "to design an integrated program so that we're modeling what we hope the Volunteers themselves will be practicing incountry."

After the stateside training is completed these Volunteers will embark

(continued on next page)

Jane Crouch, PCV/Nepal, 1983, community water-supply engineer observes and assists during a pipe joining. The completed system will provide drinking water for a community.

on an eleven-week continuation of their pre-service training in Mali. This training consists of intensive language instruction and cross-cultural studies, country-specific technical training in wells, water supply and extension and community development training. Instruction is also given on how to train counterparts.

What type of Volunteers are being sent into the field? "For the most part, we're not sending out experts or specialists," says Bell. "It's not appropriate at the village level. I think ... that there are certain things that you can learn that are appropriate for any country. We can't do in Kenya what we are doing in Gabon or Ecuador, but at the same time we *can* have generic programs by providing the Volunteer with general technical skills such as construction methods, basic geology and hydrology, community organization and needs assessment techniques." Adds Bell, "If the Volunteers have confidence in all of these areas, they can modify their projects to the specific circumstances."

A New Training Manual

To assist in conducting these comprehensive training programs, the Water/Sanitation Sector recently completed a trainer's manual entitled *Water and Sanitation Technologies.* Written by Bradley D. Hanson, an RPCV from Kenya, the manual represents over four years of work. Included in the manual are more than 220 hours of training sessions. The majority of these sessions are devoted to hands-on "field demonstrations" in basic technologies such as latrine construction, pump assembly and installation, ferrocement water tank construction, pipes and pipeworking and spring development systems. There are also detailed sections on project planning and management, facilitation skills, community mobilization, health education and disease control. In several chapters, social issues, covering topics such as "Sanitation in the Developing World" and "Women and Water," are also presented.

In addition to pre-service training, the Water/Sanitation Sector organizes in-service training (ISTs) for Volunteers who want to upgrade or enhance their skills. These training workshops are also organized upon request by the Peace Corps country staff for Volunteers working in other program areas so that they may successfully carry out secondary projects in water or sanitation.

For example, in May, the Water/Sanitation Sector will conduct an IST for agriculture and health Volunteers in Mauritania on arid land irrigation. Last October, water Volunteers in Malawi participated in a two-week in-service training program on the principles and practices of irrigation.

Some of the support materials for these sessions have been developed by the AID-supported Water and Sanitation for Health project (WASH). Each of the *WASH Training Guides* covers a specific aspect of rural water supply and sanitation. The subjects currently available are: *Latrine Construction,* a 12-day workshop; *Rainwater Roof Catchment Systems,* an 11-day workshop; *Spring Capping,* a 12-day workshop; and *Handpumps Installation and Maintenance,* a 15-day workshop. The *WASH Training Guides* are available through I.C.E.

The Sector's Future

During the 1970's and early 1980's, water and sanitation programming primarily focused on providing access to potable water, improved environmental sanitation and public health education. These days the Water/Sanitation Sector, in conjunction with the Agriculture Sector, has placed a greater emphasis on water's role in increasing food production. Many Volunteers will continue to be involved in potable water and health education projects. An increasing number of water/sanitation Volunteers, however, will be using their skills to develop small-scale irrigation systems for crop production and household gardens, to provide water for livestock and to encourage soil conservation and erosion control practices.

Water projects serving agricultural needs are an integral part of Peace Corps' new African Food Systems Initiative (AFSI). AFSI is headed by John Zarafonetis and David Watson. According to the AFSI report, the initiative is a "long-term (10-year) collaborative effort assisting up to 12 African nations in their struggle to reverse declining per capita food production and attain self-sustaining food systems." During 1986, the program will begin in four pilot countries: Mali, Niger, Lesotho and Zaire. Volunteers in health, agriculture, forestry and water resource management will use a "team approach" to address the problem of declining food production in these targeted regions.

David Watson, the Assistant Coordinator for AFSI, elaborates on Specialist Bell's contribution to the Initiative. "Jim has reviewed each assessment and program design and given advice. He has been absolutely essential in locating consultants to participate on assessment and design teams, seven of which went out last year. He has been the principal person in assisting in the design of the Mali AFSI stateside training, and he has helped prepare the two water APCDs for their new positions in Mali and Zaire."

According to the AFSI report, the untapped agricultural potential in Zaire is particularly enormous. "Not only does [the country] have the capacity to feed itself again, but it could also provide considerable food exports to its neighbors." As far as Zaire's water supply is concerned, the problem lies in the quality of water rather than the quantity. Natural springs are easily contaminated

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!

by ground water and rainwater runoff, and many rivers and streams suffer from fecal contamination.

For the past few years, the majority of water Volunteers in Zaire have been involved in spring capping to protect local springs from groundwater pollution. They have also focused on health and sanitation education. Spring capping is a process whereby the area around the spring is cleared. Pipes, supported by a retaining wall, are installed into the earth where the water emerges so that approximately 95% of the water flows directly through the pipes. This makes the collection of water a cleaner and easier process.

Sarah Ford explains that, in conjunction with water projects such as spring capping, Volunteers devote much of their time to health education. "The crux of all water supply programs is the community aspect of it," she says. "Unless a village accepts having the spring capped there, accepts all the responsibility for it and really understands *why* clean water is important, they are not going to take care of it. It will eventually fall apart." She adds, however, that "most people are very interested in having a good supply of water, and it's easy for a Volunteer to see the importance of that, too. I think Volunteers are really spending a lot more time doing health and 'user' education. If those small structures are well maintained, they can last a long time."

Ford, who now works as a water-projects training consultant, explained that many Volunteers were very successful in working with one or a team of counterparts. In her case, she trained a team of host country extension agents who lived in rural areas and were responsible for capping springs as well as doing health and sanitation education. She also trained a host country national to take her place as supervisor of the team when she completed her service.

Since 1979, the Water and Sanitation Sector has been committed to supporting and improving the many different programs in water supply and environmental sanitation. To ensure the most effective programming, the sector has worked hard to coordinate with other programs, especially in agriculture and health. Says Specialist Bell, who will be leaving at the end of March, "To me, what is important is to provide the best possible programming, the best training and the best support we can." He believes that the contributions that the Peace Corps is making are many. When asked if there was any particular accomplishment that he felt was outstanding, he replied, "Yes. The work of the Volunteers. That's what we're here for, and that's what I admire so much."

Women and Water

In many societies throughout the developing world the availability of water has a direct effect on the lives of rural women. According to Mary Elmendorf, a consulting anthropologist, the fact that "women make up more than 50% of rural communities is often overlooked. Also overlooked are the key roles of women in the drawing, carrying, use and management of water. Many women spend 4 to 8 hours a day in this burdensome task."

Drought and seasonal variations make water especially hard to secure as local springs and wells dry up, and the distance traveled to fetch it inevitably increases. The cost in terms of time wasted and energy expended in this drudgery is enormous. It hardly leaves enough time to perform the numerous other chores and functions demanded of women that are essential to their families' survival.

As carriers of water, women directly influence the amount and quality of the water consumed, and thus the health status of the household. Elmendorf writes that, "as selectors of water, women determine the quality of the water delivered to the household. As those who select the transport and storage vessels, wash them and cover them, women influence both the volume and the quality of the water consumed. Finally, as those who give their infants and small children liquids, bathe them and launder their clothes, [women] determine the cleanliness of the cup, the spoon, the water..." Women are therefore vital in the efforts to halt the cycle of infection, illness and disease resulting from contaminated household water.

In addition, the women themselves are particularly vulnerable to water-related diseases because their chores keep them regularly in contact with water that is often polluted. Though a woman may be aware that her water supply is unfit for drinking, she usually has no alternative but to use it anyway. Indeed, the mere existence of water is often seen as a blessing.

For these reasons, it is imperative that women are involved and included in water and sanitation projects in the developing world. As bearers of water, women can provide important information to development planners and strategists concerning water sources and how seasonal changes might affect the availability of water in their region. Women can also play a significant role in promoting community acceptance of improved water supply and sanitation programs.

A growing awareness of the traditional role of women as water providers has resulted in efforts to increase women's participation in Peace Corps' water and sanitation projects. The involvement of host country women in these projects, however, certainly isn't new. Barbara Denman, Peace Corps' Women in Development (WID) coordinator, says, "I think that Peace Corps has always involved women to a certain extent in its projects, just because of the way that Volunteers live and work. We are in an ideal position to make progress because we are in the villages, and I think that's especially true of water projects. Water is the one area where you can really carry out the ideas we talk about when we talk about integrating women into a project."

Denman goes on to say that it may be difficult to figure out how to involve women in other sectors because they don't necessarily have traditional roles in those areas. However, "women have always gone out and gotten the water and brought it back; they've always had to find it; they've always been the

(continued on next page)

ones to cook with it. So, water management really is an area where you don't have to break a lot of new ground."

Sarah Ford, a former public health/water Volunteer who capped springs in Zaire, believes that, "... all Volunteers and their counterparts [in Zaire] make a real effort to gear their health and sanitary education towards women. Often times we tried to get the village to appoint a woman as the caretaker of the spring so that once it was capped, she'd be responsible for assuring that it was maintained. If there was a problem ... she'd have to get someone to repair it. This seems to be working fairly well."

In Paraguay, another country where water supply, sanitation and family health are primarily the responsibilities of women, water/sanitation Volunteers have involved women in their Peace Corps projects in the following ways:

- School teachers, nearly always women, participate in and sometimes help organize sanitation education workshops;
- Women participate in vegetable gardening projects;
- Mothers and young women attend sanitation and general health talks in the community;
- Women have been Volunteer counterparts;
- In home visits to promote running water projects or basic sanitation, the majority of the Volunteers' contacts are with women because the men are out in the fields.

Barbara Denman would like to encourage Volunteers everywhere to continue to look around and see how they can involve women in their projects. She also believes that despite certain cultural "restrictions," it may be possible in various societies for male Volunteers to work to some extent with women. If working directly with women is not possible, male Volunteers may be able to involve women indirectly through such channels as village water committees.

By involving women in the planning, design, operation and maintenance of new water systems and in complementary health education programs, water/sanitation projects will be more effective in achieving their ultimate objectives of improved water quality, quantity and health. Moreover, the active participation of women can lead to other improvements in women's status and their roles in development through increased productivity. Ultimately, such participation can also provide an improved standard of living for themselves and their families.

S.P.A. Network

FROM THE S.P.A. COORDINATOR

The focus of this issue is on water-related S.P.A. projects. Over the course of 3 years we have seen a fair number of well, irrigation, catchment, and latrine projects. There is no separate classification for water projects. Such projects, however, can receive funding as either agricultural or health projects. Wells and irrigation projects which aim to increase available water for agricultural purposes can be classified as food production projects and be funded using the original S.P.A. money. Water projects which target human consumption, potable water, and sanitation issues should be classified as health projects and be funded using the new Health S.P.A. funds.

Water projects, whether for agricultural or health purposes, can be highly visible and involve major construction. It is important to remember that the mere construction of a well or a latrine does not ensure success as an S.P.A. project. The community involved in the project should be learning:

- technical skills related to the project;
- how to organize and manage the project; and
- skills in working together to address other community problems.

Historically speaking, we have learned that projects involving construction are more likely to continue after the Volunteer leaves if the community is involved in the planning and design, and if it makes a significant cash or in-kind contribution.

The case study in this issue illustrates how some of these points can be addressed in the development of the project.

Volunteers and communities working on water-related projects can receive technical assistance from the Office of Training and Program Support (OTAPS). Money is available to conduct skill training in pumps, gravity-feed irrigation, well construction and repair, latrines, water lifting devices and more. Requests should be made through country staff. Recent and scheduled water related training activities can be found in the **Latest Events Section.**

Remember, if you have a project which would make a good case study, an issue you'd like to raise, or experiences you'd like to share with others, send them to the S.P.A. Coordinator, OTAPS. We are looking forward to including field-generated materials in upcoming editions of the S.P.A. Network.

CASE STUDY: A WATER/SANITATION PROJECT

Background

Mbouleme is a village located approximately 100 kilometers south of Dakar, the capital of Senegal. Situated near the coast, Mbouleme's principal activity is agriculture.

In the village there is a three-room public school, established in 1961. To accommodate an expected increase in the student population, the School Director and officials of a parent's association designed and implemented a school expansion project. This involved the construction of an additional classroom which was supported by the U.S. Embassy's Self-Help Fund and contributions from the Mbouleme Parent's Association.

Following the initiation of the school expansion project, teachers were instructed by local ministry officials to establish a canteen to reduce the need for students to walk several kilometers each day to return home for lunch. Given that there was no serviceable well and no functioning latrines at the public school,

the canteen would be impossible. Therefore, the Peace Corps Volunteer assigned to Mbouleme discussed with the community the idea of repairing the well and constructing two latrines as part of the school expansion project. The goals of this effort would be:

- to increase the supply of water which could support a school garden;
- to improve basic hygiene by constructing two latrines;
- to involve the community in school activities by utilizing parents and young men trained in gardening to teach the students basic gardening; and
- to enhance the organizational and managerial capabilities of the parent's association through direct skills transfer.

In the past, village projects had not required a substantial investment on the part of the villagers, and any attempts to undertake collective action had been difficult. This project, however, was both designed and initiated by the Parent's Association and the School Director. Even though they received outside funds, there was significant contribution and participation by the villagers.

Village participation in this case was 39% of the total cost of the project. For administrative purposes, the Parent's Association organized into three committees—materials, financial, and labor—to provide unskilled labor, to pay for skilled labor and to supply needed materials. The Association contracted the well-digger, procured cost estimates and sent a representative of the Association along with the PCV on visits to administrative and ministerial authorities.

The S.P.A. contribution of 61% financed materials needed for well repair, latrine construction, and gardening.

Project Results

The implementation period of this project was two months. During that time the well was completed and two latrines were built. In addition, the project led to:

- the production of a rainy-season garden which was supervised and supported by community men skilled in gardening;
- health education lessons which were developed and delivered by students and teachers; and,
- the training of rural students in practical, village-based skills.

Points to Consider

There are several factors which contributed to this project's success. The most important is that the community initially identified the problem and took ownership of the project. The role of the Volunteer was to support and guide the efforts of the community to insure the effective implementation and follow-up of project activities.

This type of project is significant in that it encourages the Parent's Association to initiate similar actions in the future, and will inspire other villagers to join them in organizing to resolve other community problems.

A second factor is that skills training in vegetable gardening was conducted at the village level by local individuals. The PCV was very effective in focusing the villager's attention on resources at their disposal, and in downplaying the need for outside assistance. Moreover, skills training prepares students to address the needs of the village in the future, and serves as a catalyst for potential income generating activities.

Finally, water projects like this one have diverse impacts and can be ideal opportunities to help integrate several community needs into one effort. This requires, however, strong planning, clear role definition and consensus on the expected outcomes.

LATEST EVENTS—WATER/SANITATION

The following events were supported by Technical Assistance/OTAPS. If you are interested in the proceedings/outcomes of any of the events, contact the country staff or S.P.A. Coordinator.

First Quarter/FY 86

Irrigation Workshop/Malawi: addressed the principles and practices of irrigation for PCV's working in irrigated agriculture.

Water IST/Mali: provided PCV's and counterparts with hands-on experience in 3 different well types (Sliding Cassion, Dutch Brick, and Senegal Plaster Method).

Water IST/Senegal: provided PCV's in Rural Development with technical skills for managing village-level water projects.

Third Quarter/FY86

Water IST/Haiti: covered watershed management and community development.

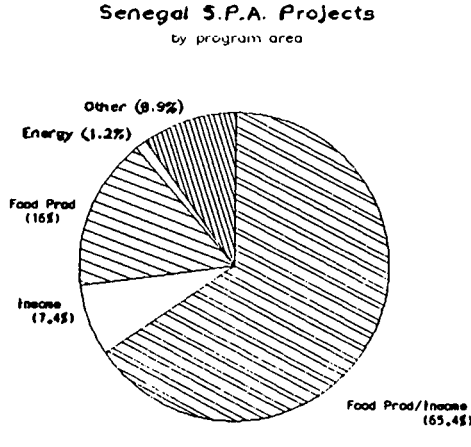
Sanitation IST/Malawi: focused on defective sanitation practices, construction of ventilated pit latrines and hand-dug wells with pumps. Also reviewed improved water resources and oral rehydration methods.

Water Resource Management IST/Mauritania: addressed site selection, well construction and rehabilitation, and writing of project funding proposals.

Health IST/Papau New Guinea: focused on health education and water sanitation.

S.P.A. Spotlight—Senegal

The Peace Corps program in Senegal, established in 1963, is one of the oldest. The country is situated on the coast of French West Africa within the Sahel region. There are currently 95 Peace Corps Volunteers in Senegal working in the technical areas of agriculture, forestry, fisheries, and education. Approximately 60% of the Volunteers work in the Rural Development/Animation sector which involves agricultural and water-related activities.



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(Spa-Senegal from p. 21)

Since its inception in January of 1983, the S.P.A. Program has supported approximately 90 projects in Senegal. The following chart summarizes the classification of S.P.A. projects in Senegal.

Of the projects that are classified as Food Production/Income Generation, over sixty percent have been village-level, water-related projects that have included well repair and construction, gravity-fed irrigation systems, and water-catchment reservoirs. Although the primary intent of these water projects is agricultural development, they provide secondary benefits in health and income generation.

A highlight of Senegal's water-related S.P.A. projects is that they promote involving the community throughout the life of a project. There has been a concerted effort made by PCV's to put ownership of projects into the hands of the community. They try to insure that the process of problem identification, planning, implementation, and follow-up be conducted first and foremost by the community. Remarkably, S.P.A. projects have easily met Senegal's 25% local contribution requirement, and in many cases have gone beyond that. PC/S also promotes the replication of successful S.P.A. projects so that several communities can benefit from the effectiveness of a particular project.

Recently, Peace Corps/Senegal received an additional US $15,000 in health funds which it will use to support village sanitation, water-supply, pharmacy, and health education projects. As of yet, no project proposals have been submitted for this funding.

One unique component of Senegal's S.P.A. program is the use of regional PCV's in the development and review of proposals. Several PCV's have been trained in writing and reviewing project proposals, and these Volunteers are available to consult with other PCV's/communities who are developing project ideas. PC/Senegal has found that this reduces the amount of time required by APCD's in supervising the initial stages of a project proposal, and it increases the success rate of projects and their viability.

NETWORKING

What is the easiest way to acquire technical materials on the appropriation of technologies from a wide variety of sources besides contacting Peace Corps/ICE? How can Volunteer counterparts have access to the best how-to manuals published on four continents without hassling with foreign exchange? Is there some simple way to convert a cash donation into quality publications? The Socially Appropriate Technology International Information Services (SATIS) has recently implemented a book token scheme to bridge the gap between the producers of technical information and the users of this information.

SATIS is an association of approximately fifty organizations worldwide involved in the practical technologies of development. SATIS provides a means for pooling the resources of its members (the majority being in the southern hemisphere) and alerting interested parties through the publication of the SATIS catalog.

Since 1983 SATIS has published a catalog of materials which SATIS members and partners distribute. The 1986 catalog lists 1,500 titles. Many of these are available not only in Spanish, French and English, but also other languages such as Swahili and Creole. Books, pamphlets and audiovisual materials are available directly from the SATIS bookstores. This year's mail order catalog is the first to make the SATIS tokens available.

A token is a ticket-like coupon which can be purchased in any currency and used to buy materials in any currency from the SATIS bookstores. The token scheme allows for individuals in remote areas to have easy access to current information in a timely fashion.

The SATIS catalog and book tokens can be acquired directly from SATIS. However, the materials themselves must be ordered from the individual member bookstores within six months of catalog receipt. Include tokens with the order to avoid proforma billing. SATIS will reimburse unspent tokens within six months after their expiration. The value of the token is tied to the U.S. dollar and tokens may be purchased in lots of $5. Minimum order is $25. The prices in the catalog are fixed and, when paying with the tokens, airmail is guaranteed. The catalog itself is a useful bibliography of development information and illustrates other areas in which SATIS promotes the popular development of the appropriation of technologies.

SATIS provides its members and others with the means to manage, exchange and disseminate information. The annual SATIS catalog is arranged according to the SATIS classification scheme which is a three-digit decimal system divided into eight macro subject groups. The scheme allows for further subdivisions with the second digit being the main subject and the third digit (one's place) being the specific subject. The classification scheme, scope notes on all subjects, cross-references and a thesaurus are available from SATIS for approximately $US 20.00.

Another tool that SATIS uses to improve information exchange is its newsletter, published in English, Spanish and French, which appears nine times a year. The newsletter keeps members informed of projects, publications, research and other items of interest.

SATIS members and partners are involved in various activities in the following Peace Corps countries: Botswana, Cameroon, Costa Rica, Ecuador, Guatemala, Nepal, Papua New Guinea, Philippines, Senegal, Tanzania, and Zaire. Contact Peace Corps/ICE for further details.

If funds are available, ICE will provide one trial SATIS catalog and token set to all countries this year. When ordering directly from the SATIS bookdealers, be sure to check that titles are not already available free of charge from Peace Corps/ICE.

Conservation Audiovisuals

Another useful but very different source of information is the International Centre for Conservation Education (ICCE) based in the United Kingdom. The International Education Project of the World Wildlife Foundation (WRF) and the International Union for Conservation of Nature and Natural Resources (IUCN) joined forces in 1975 to form ICCE to provide a global focus

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Sector Updates

AGRICULTURE

Reversing Africa's Decline, Worldwatch Paper #65, by Lester R. Brown and Edward C. Woolf, 1985 (Worldwatch Institute, 1776 Massachusetts Ave., N.W., Washington, D.C. 20036) 81 pp. $2.00.

A proposal to implement a resource-based development strategy in Africa aimed at arresting ecological deterioration in order to reverse the continent's decline. Analyzes the failure of the traditional investment approach as applied to Africa by the international development community. Stresses the need for a more locally-based, people-centered development effort rather than large, capital-intensive schemes. Points out the difficulties inherent in implementing the new strategy given the constraints of lack of intra-African and international cooperation, the need for social mobilization projects, etc.

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

ENERGY

Solar Census, Photovoltaics Edition, AATEC Publications, 1984 (AATEC, P.O. Box 7119, Ann Arbor, Michigan 48107) 201 pp. $14.95.

A directory of organizations involved with photovoltaics, including manufacturers, suppliers, designers, R&D, education and information sources. Provides indexes to cross-reference contact names, specific subjects, and geographical location of the organizations. Mostly U.S. firms.

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

EDUCATION

Small Gas Engines: Fundamentals, Service, Troubleshooting, Repairs, by Alfred D. Roth. 1985 (The Goodheart-Willcox Company, Inc., South Holland, IL) 264 pp. $14.95.

Provides basic information on small gas engines including their construction, the operation of their systems, their lubrication requirements, preventive maintenance and rebuilding. Written for students and do-it-yourselfers. Engines analyzed include one- and two-cylinder, two- and four-cycle gasoline engines. Also discusses rotary engines, diesel and LP-Gas engines.

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

Understanding and Measuring Power, by American Association for Vocational Instructional Materials, 1978. (American Association for Vocational Instructional Materials, 120 Engineering Center, Athens, GA 30602) 75pp. $5.50.

Designed to help train students in the fundamentals of power technology in order to provide them with the skills necessary to test the power output of electric motors, internal combustion engines, and power take-off units. Very valuable for determining the power specifications of engines and motors required to perform particular tasks. Highlights the special characteristics of farming and industrial tractors. Presents a step-by-step teaching method which begins with basic theoretical premises and develops them into practical principles and applications. Strong emphasis on safety precautions.

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

HEALTH

Community Health, edited by C.H. Wood, J.P. Vaughan and H. de Glanville. 1981 (African Medical and Research Foundation, P.O. Box 30125, Nairobi, Kenya) 478 pp. $3.85.

Used as a basic textbook for training medical assistants in Tanzania. Volume provides a comprehensive treatment of all aspects of community health with a focus on local conditions. Discusses in detail sociological issues such as relationship between behavior, environment and health, the importance of demographic data and the patterns of health and disease. Covers administrative issues of community health services. Explains techniques for obtaining information about community health practices, improving sanitation and providing immunization. Also covers child spacing (birth control) health education, control of communicable disease, and maternal health care.

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

S.E.D.

The Private Marketing Entrepreneur and Rural Development, edited by Malcolm Harper and Richard Kavura. FAO. 1982 (UNIPUB, P.O. Box 1222, Ann Arbor, MI 48106) 155 pp. $8.75.

A collection of case studies showing the role private entrepreneurs play in marketing the produce of small-scale farmers. Studies from 13 countries representing Africa, Asia, Latin America and the Caribbean are written by professional people familiar with private enterprise. Cases are presented in three groups: businesses marketing perishables such as meat, fish, fruit and vegetables; businesses selling equipment to farmers; businesses marketing staples. Asks that the services these businessmen render be evaluated in the light of the contribution they make to satisfying consumer needs.

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

Water/Sanitation

Rain and Stormwater Harvesting in Rural Areas, a report by the United Nations Environment Programme. 1983 (UNIPUB, P.O. Box 1222, Ann Arbor, MI 48106) 238 pp. $25.00.

(continued on page 24)

(Networking from page 22)

for practical conservation education activities in developing countries.

ICCE places great emphasis on the production of simple, low-cost, quality education materials using facilities on location. ICCE offers training, consulting services, educational materials, and mobile units and equipment.

The advisory and consultancy services ICCE provides to governments and organizations cover all matters relating to the establishment and management of national conservation education programs. The training courses offered to nationals of developing countries by ICCE cover in-depth, hands-on study of the production of conservation education materials. The courses also allow trainees to produce AV programs, pamphlets or posters in bulk for use in their countries.

ICCE currently offers over 100 different filmstrips and slide-tape programs (some now available in videotape) on conservation and the environment. The Conservation and Development series includes AV programs on desertification, renewable energy, and case studies of The Gambia and Zambia. The programs are available as filmstrips or plastic-mounted slides and cassette commentaries (many in various languages). Program production is often done on-site in close collaboration with other local conservation organizations. ICCE encourages cooperative production for mutual benefit in creation and distribution of AV programs.

ICCE takes education to the field in its mobile units for conservation. The units can travel to remote areas and perform to an audience of over 1,000 people using its powerful public address system. The unit includes displays, AV programs and cameras and recorders for creating additional local resources.

For more information on programs available from ICCE or other equipment and services write to:

International Centre for Conservation Education
Greenfield House
Guiting Power
Cheltenham, Glocester, GL54 5TZ
United Kingdom

Forestry and Natural Resources Collaboration

Collaboration comes in many forms: man-hours given in training, programming and assessment consultations; material support in the form of grants, matching funds or equipment to help in the implementation phase of a project; technical information exchange. The agencies which have worked closely with the Forestry and Natural Resources Sector of OTAPS in the past are listed below. Please feel free to contact the Sector for assistance in reaching these agencies.

- American Forestry Association
- African Wildlife Fund
- Assorted Colleges and Universities
- Catholic Relief Services
- Centro Agronomico Tropical de Investigacion Y Ensenanza (CATIE)
- East-West Center
- Host Country Governments
- Institute of Tropical Forestry
- International Council for Research in Agroforestry (ICRAF)
- International Institute for Environment and Development (IIED)
- Man and the Biosphere
- National Park Service
- Nitrogen Fixing Tree Association
- Pan American Development Foundation (PADF)
- Patuxent Wildlife Research Center
- Peace Corps Partnership Program
- Society of American Foresters
- UN/FAO/World Food Programme
- USDA Forest Service
- US Fish & Wildlife Service
- World Wildlife Fund

Many of the agencies know the value of a Returned Volunteer (RPCV) through years of working with Peace Corps. Professional societies often seek out RPCVs to work with their projects. Universities have indicated an interest in similar services. The same organizations you now work with can use your expertise after you leave the Peace Corps. Think about it.

(Sector Updates—from page 23)

A world-wide summary of the ways rainwater and other forms of precipitation are collected, stored, treated and distributed. Discusses the uses of roofs, ground catchments, contour terracing, silt traps, check dams and canals. Includes an evaluation of various harvesting schemes. Makes recommendations and gives criteria for pilot projects.

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

WS 066

Small Scale Irrigation, by Peter Stern, 1979 (Intermediate Technology Publications Ltd., 9 King Street, London WC2 8HN, UK) 152 pp. $6.65.

Covers the basics of developing low-cost irrigation systems for small-scale cultivation. Assumes the reader is working in an isolated rural area and has limited background in science and technology. Defines small-scale cultivation as 20 hectares or less. The first of the three major sections discusses the problems of time, labor and resources created by a change over from rain-fed to irrigated cultivation. The second treats irrigation practices such as moisture conservation, surface, subsoil and overhead. The third explains planning and design. Generous use of illustrations, charts and graphs helps to explain concepts.

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