

school partnerships

The "Linking Lands: A Partnership between Seattle and Tanzania" global classroom project has been launched! Funded by EDDI (Education for Development and Democracy Initiative - www.eddionline.org) and administered by the World Affairs Council Seattle, Terrawatu is overseeing the creation of an internet-capable computer lab in a bush area of Arusha region and co-managing a teacher exchange between Natema and Olchoki Primary Schools in Arumeru District, Tanzania and John Stanford International School, Hamilton International Middle School, and Mercer Middle School in Seattle, Washington, USA. Sixty re-furbished desktop computers are being donated by WITAG Denmark (World IT Aid Group) with shipping costs to the port of Dar es Salaam being paid by DANIDA. The computers are expected to arrive in Tanzania by the end of January. Microsoft South Africa has so kindly provided Terrawatu with all of the license agreements for the software needed for the project. Six Tanzanian primary school teachers will be heading to Seattle in March, and we are busy here preparing for their journey. As none of the participants have birth certificates, we have a lot of work to do in securing the passports and visas and briefing them about life in Seattle. This will be the first trip outside of their village areas for almost all of these teachers. In Seattle, they will be trained to use computers and the internet and begin developing web-based curriculum that will serve to educate Washington-area students on the reality of life "inside Tanzania". It is an exciting time here!

Natema Primary School students have begun work on the second round of planting at their school gardens. Using the seeds collected and dried after the first harvest (seeds and tools originally provided by Seeds for Africa, UK), students will tend to a new crop of zucchini, carrots, and green pepper. Meanwhile, students at Ilkiding'a Primary School are currently planning for their first harvest of eggplant, zucchini, and spinach. They have asked for Terrawatu's help with selling the produce at local markets. Terrawatu's research assistant, Gladys Lendii, is currently designing recipe cards that will provide nutritional information about this produce and new ideas for preparing food. This is an important part of Terrawatu's educational mission as many local people in the villages have abandoned their once-nutritious diets and replaced them with white bread and chips (french fries cooked in margarine). We hope that including these recipe cards with a purchase of the organic produce will command a higher price for these products.

Construction of additional classrooms at Natema Primary School is proceeding. The shell (walls and ceiling) of the first classroom should be completed by Christmas. Community members have donated some materials for the completion of this first room. Terrawatu is still actively seeking new funding sources to complete the project, which will be a three to four classroom building with an upstairs room available for radio-internet connectivity.

cross-cultural exchanges

Terrawatu is the tour operator for Global Exchange's (San Francisco) "*Tanzanian Reality Tour: Global Problems, Local Solutions*" scheduled for May 4-17, 2003. Participants on this journey will have the opportunity to experience life in an authentic Maasai village, visit traditional healers, witness firsthand the challenges of migrating into urban areas from rural villages, and learn about local solutions to global problems such as the creation of coffee growing co-ops, reforestation campaigns, and environmental education programs. If you have been curious about seeing our project sites here firsthand, as well as experiencing life in East Africa, think about joining the journey in May. You can read more about the planned itinerary by going to www.globalexchange.org/tours/ and searching for "Tanzania". Or, contact Sarah Dotlich directly at 1.800.497.1994 or sarah@globalexchange.org.

If you and your family and friends would like to book your own customized ecological-cultural safaris into the wildlife areas and indigenous communities of northern Tanzania, and/or to find out dates for a future *Oloipung'o Experience* with Terrawatu, send us an email at info@terrawatu.org.



Organizational News

Terrawatu celebrated its first birthday on 31 October! During a meeting of the Board of Directors in early November, we all agreed that this has been a very good, and of course, challenging year. Several people mentioned that Terrawatu has done more in a year than other local NGOs do in their lifetime. What a compliment! We wish to thank again all of you who have supported us this year, we couldn't have done it without you! Let's all hope that this next year is even better.

Gladys Lendii joined us here at the office of Terrawatu, Arusha, in December. Lendii was born in the Maasai community of Tinga Tinga and holds a certificate from Mweka College of African Wildlife Management, Moshi, Tanzania and a certificate in Computer Applications. During her three-month trial period, Gladys will be learning about our organizational mission and our strategies for successful project implementation. She has already accompanied Terrawatu members on fieldwork visits to our project sites and has proved to be quite skilled in community empowerment.

Needs section

© **Projector** – It would be greatly beneficial to our work if we could broadcast out to the communities in the field digital photos, PowerPoint presentations, and DVD programs from our laptops. We can plug the projector into our "AC Anywhere" adapter in our vehicle, attach to battery-powered laptop, and show these images on the side of a school building out in the bush. Help us bridge the digital divide with the technological leap-frog from drawing with sticks in the sand to digital light pixels floating above red African earth. If you have in your possession -- or know of a new or used projector looking for a home -- please contact us at offerings@terrawatu.org.

© **Contributions for resource center** - The Medicinal Plant & Sustainable Development Resource Center is a collection of primarily academic literature covering the following subject areas: medicinal plants (with a focus on Tanzania and other African countries); indigenous knowledge (from all over the world); pharmacological evaluation of medicinal plants; grassroots environmental movement activity; Tanzanian and East African sustainable development policies; and, Maasai culture and current political issues effecting Maasai people. Users of this center are Terrawatu staff, international students and visitors working and studying in Arusha, and local people. If you have something to contribute to this growing collection contact us at offerings@terrawatu.org to let us know what you have and we will let you know the best way to get it to us (e.g. electronically or by post). Materials can be in English or Swahili.

Activist corner - what you can do from where you are

NEW!!! CHILD-SCHOOL-SPONSORSHIP PROGRAM

Feeling completely powerless in the face of global problems these days? It can be particularly frustrating when the amount of information we all currently have access to gives us clear data on the sources of many problems, yet we feel that little is being done to change things.

For example, many of us know that increasing the level of education, especially for young girls in developing nations, directly translates into people having fewer children; more money for good quality food; and more skills for creating new businesses. Yet, if we wait for governments in

developing nations to improve access to education, it will most likely be several generations before we see any real changes. In the meantime, young, uneducated children in developing nations will continue to be attracted to desperate ways of surviving, from stealing property to joining militant religious organizations.

Working here in Tanzanian communities we see how difficult it is for children to receive a decent education. Many of their parents have few skills themselves, and most adults are just now thinking about limiting family size (but still at the "thinking" stage). Only a small number in the upper classes have money to pay the government school fees for their children all the way through secondary school. Many children are hungry for education, but there is no money for a seat in a classroom. Having nothing else to do, most start their own families at a young age and the cycle continues.

Yet, the cycle *can* be broken. Quite easily, in fact. There are a growing number of individuals from both inside and outside Tanzania who want to help make a difference. They choose to develop a relationship with a young Tanzanian child by beginning a friendship and supporting the child with funds for school fees to a level that brings the child to a point of self-sufficiency. This is called "Child Sponsorship" and in each case, the yearly investment is no more than the price of a couple of shopping trips to Whole Foods Market or REI.

Child School Sponsorship will immediately change a child's education for the better. By paying for school fees, private tuition, or buying uniforms and books, child sponsorship can enable a child to attend school and prepare effectively for examinations. Education is one path to success. When you sponsor a child, you help a whole community.

Imagine the effect if just one child goes on to become a professional or skilled person as a direct consequence of sponsorship. The one child, once an adult, will have a beneficial influence on his/her own family, and as a result, so will the extended family, and eventually the immediate local community in which that family resides. This is a mushroom effect. It is an extremely powerful way of achieving social change.

We here at Terrawatu are happy to announce our new [Child-School-Sponsorship \(CSS\) Program](#). This is how it works:

- You send us a note explaining your interest in the program and whether you want to sponsor a girl or boy.
- We work directly here with the primary school with which we have a close relationship – Natema Primary School - to identify promising students at either the Standard 5 or 6 level (Grade 5 or 6).
- You make at least a 7-year commitment to the program. The first 2-3 years, your yearly investment goes towards completing classrooms at the school and supporting your sponsored child's education.
- We send you photos and video images of a "day-in-the-life" of your new friend and -- as soon as our computer lab is ready -- connect you via email.
- When your sponsored child is ready for secondary school, you become responsible for his or her school fees and associated educational costs.
- Your **yearly investment: begins as low as US\$400.**

We know this type of program really works. We have met several young adults here who have had the blessings of receiving sponsorship from good people in Europe and America and are now entering University programs, teaching in schools themselves, and starting new businesses.

If you want to make a real difference in this world, consider joining our Child-School-Sponsorship Program. Send us an email saying so at info@terrawatu.org and we will take it from there!



Recipe- East African specialties

Kwanzaa recipe

The name KWANZAA is derived from the Swahili word *Kwanza*, which means "first", and comes from the saying *matunda ya kwanza* "first fruits." Celebration of this holiday lasts for seven days from December 26 to January 1. Kwanzaa is a holiday where Americans celebrate their African roots and is a time of rejoicing, reflection and commitment shared by family and community. It is not a religious celebration, nor is it a substitute for Christmas. The fact that it begins the day after Christmas was an effort by its founder to avoid the excessive commercialization of the season. Learn more about Kwanzaa at www.ritesofpassage.org.

With all the fancy food prepared during the holidays in America and Europe, we thought we would share a recipe for simple but delicious comfort food. Celebrating the African diaspora, here is a recipe for some good 'ol beans and rice, with flavors found from the Swahili Coast to Jamaica.

Jamaican Rice & Beans

6 servings

Source: foodgeeks.com

What you need:

- 1 cup dry red kidney beans, washed
- 1 can (14 oz.) coconut milk, or fresh
- 1 green onion, crushed
- 1 clove garlic, crushed
- 3 slices hot chili pepper
- 1 sprig fresh thyme
- Freshly ground black pepper, to taste
- 2-1/4 cups long-grain rice

What you do:

1. In a large bowl, soak beans in water to cover overnight.
2. In a large saucepan with a tight fitting lid, place beans and coconut milk. Bring to a boil. Lower heat and simmer for 3-1/2 hours, or until beans are tender.
3. Add green onion, garlic, hot chili pepper slices, thyme and black pepper. Simmer for 5 minutes.
4. Add rice. Liquid should be about 1-inch above rice - add water if necessary. Cover pan, bring to a boil, then immediately turn heat to low. Cook about 20 minutes, or until liquid is absorbed and rice is tender. Just before serving, stir to distribute rice and beans evenly.



The Ancient and Modern Worlds Unite to Fight HIV/AIDS in Tanga, Tanzania

By David Scheinman

For centuries, traditional healers have been the main providers of primary health care to most Africans. Today healers in Africa, but especially in Tanga, Tanzania, still play crucial roles since -- in addition to their roles as primary health care providers -- they carry the burden of care for treating people with HIV/AIDS. In Tanga, the Tanga AIDS Working Group (TAWG) -- situated in historic Cliff Block of Bombo Hospital -- has been successfully collaborating with traditional healers since 1990. This is the story of a promising partnership between the ancient and modern worlds to combat HIV/AIDS.

MEDICINAL PLANTS

Plants have been used as primary sources of medicine for thousands of years and were our very first medicines. Over 4,000 years ago, the Red Emperor of China published a list of 4,000 medicinal plants. Literature about Babylonian medicinal plants was compiled in 1770 BC. The ancient Egyptians even placed medicinal plants in Pyramids to treat their Pharaohs after death. The pharaohs were mummified using plants, herbs, spices, and minerals.

Up until 100 years ago, the sciences of botany and medicine were nearly the same. It was only in the beginning of the twentieth century that pharmacology began focusing on identifying, synthesizing, and patenting bioactive compounds and started moving away from using herbal treatments. Soon herbal medicine, which was mainstream in the 19th century, began to be considered unscientific and unconventional since no one could pinpoint what compounds or molecules -- if any -- were efficacious.

Plants have medicinal qualities due to the substances they produce to protect themselves from pathogens. We just "borrow" these substances to treat our own viral, fungal, and bacterial infections. Many medicines are extracted from the roots, root bark, and bark of plants since these areas are the most vulnerable and provide a plant's first line of defense against an invader.

Imagine a poor plant, permanently rooted in one place, in the ground and defenseless, with nowhere to run or hide. Vulnerable, you bet; but that's just the beginning. Within seconds of an attack, plants begin producing and excreting a potent array of substances that are lethal or toxic to the invading virus, bacteria, fungus, insect, or even mammal. Individual plants can produce up to approximately 1,000 unique chemicals. Hence a natural anti-viral produced by a plant to defend itself can also be used by a human as an anti-viral. It's that simple.

Traditional healers in Tanzania have been identifying, experimenting, and using these substances to treat patients for millennia. By combining forces with them, we have access to thousands of years of research results. This is commonly known as Indigenous Knowledge (IK).

Many of today's modern medicines are derived from plants. Over 120 pharmaceutical products are produced from plants, and 74% were first used by native cultures! Yes, the correlation between healer use and positive lab results is clear. Data clearly indicates that plants collected from healers provide more solid leads toward developing new drugs than random screening. Twenty-five percent of our present prescription drugs are derived from plants. The best known are quinine from the cinchona tree, morphine from the poppy, aspirin from the willow, digitalis from foxglove, vinblastine and vincristine (first choice drugs treating Hodgkin's Disease, Acute Leukemia, various lymphomas, Advanced Breast Cancer, and now HIV related Kaposi's Sarcoma) from the rosy periwinkle -- which grows right here in Tanga -- and now cotexin from artemisia for treating malaria.

TRADITIONAL HEALERS IN TANGA, TANZANIA

Tanga District, in the northeastern corner of Tanzania, has approximately 670 traditional healers (Waganga). 337 are in Tanga Urban District and 333 are in Tanga Rural. The average age of a healer is 52. Most are Muslim and have been practicing for an average of 19 years. There is one healer for every 343 residents of Tanga town and one healer for every 146 rural residents. There is only one western trained medical doctor in Tanzania for every 33,000 residents. Ergo, many more people receive health care from healers than from conventional health workers. Many healers have participated in TAWG Seminars.

These figures positively correlate with data from sub-Saharan Africa. Healers are already in place throughout Africa; health ministries do not have to employ or assign them since virtually all villages have residential healers and traditional birth attendants. This is especially true in rural areas where modern medicine is much less available than in towns. Hence, synergistically combining forces with healers to combat HIV/AIDS and promote public health makes excellent sense.

Healers in Tanga are mostly herbalists, diviners, mediums, surgeons, midwives, and traditional psychiatrists. The majority uses some of the many medicinal plants available in our biologically diverse region. The Eastern Arc range of mountains, which includes Amani in Muheza District, is one of only 20 designated biological hotspots in the entire world. A hotspot is a region characterized by an unusually diverse range of species, many endemic to the area. Amani has the second highest amount of biodiversity in Africa -- a site in Cameroon is first.

Healers have specialized knowledge for treating physical, cultural, and psychological ailments. They are readily accessible, very affordable, usually have credibility, and in Tanga have a treasure trove of biological diversity from which to collect efficacious plants.

HEALERS AND DOCTORS JOIN FORCES IN TANGA

To win the war against HIV/AIDS, healers should be active partners in the health care system. This is actually happening today in Tanga, where traditional healers and modern physicians have joined forces in an exciting and promising program implemented by TAWG. TAWG is an innovative non-governmental organization (NGO) that links traditional healers, physicians and health workers, botanists, social scientists, and people living with AIDS (PLWAs). TAWG's goal is to bridge the gap between traditional and western biomedicine by treating PLWAs with traditional medicine. TAWG has received support from OXFAM, The World Bank, and USAID.

TAWG evolved from meetings a German physician and his Tanzanian colleagues initiated with traditional healers in Pangani, a sleepy coastal town 50 kilometers south of Tanga in 1990. The health workers observed that many patients -- this is true throughout sub-Saharan Africa -- concurrently visited both the hospital and traditional healers. Hence they decided to make contact with local healers in hopes of initiating a referral network. They were successful, and their network evolved into TAWG.

Healers responded enthusiastically to the initiative. They relished being taken seriously and treated like fellow professionals. The initial dialogue evolved into meetings where participants discussed how to treat various ailments, when to refer a patient to the hospital, public health issues, and how to cooperate with bio-medical personnel. One day the subject was HIV/AIDS.

Waziri Mrisho, a wizened 84-year-old healer, slowly stood up and asked if he could try treating HIV/AIDS in-patients. He mentioned that his grandfather had shown him some plants that treated HIV/AIDS symptoms. The group agreed, and Waziri treated a few confirmed HIV+ patients with three plants TAWG still uses today.

Bio-medical personnel soon observed -- to their delight and great surprise -- that patients treated with Waziri's three plants generally developed improved appetites, gained weight, suffered from

fewer and less severe opportunistic infections, and enjoyed improved health and well being. The plant remedies soon became the hospital's standard HIV/AIDS treatment for patients who preferred herbal medicine.

The original three plants -- along with others that have been added -- are still used to treat a variety of opportunistic infections commonly caused by HIV/AIDS. Waziri was a real pioneer. He readily shared his knowledge and generously agreed to have his plants scientifically identified by botanists from the Lushoto Herbarium in Lushoto, Tanga Region.

TAWG eventually developed a home care service to deliver the plant remedies to HIV/AIDS patients and their families. Home visits are the foundation of the TAWG's day-to-day work. Activities include monitoring general health, administering traditional remedies, and providing counseling for patients and their relatives.

In 1994, TAWG was officially registered as the Tanga AIDS Working Group (TAWG) with the Ministry of Home Affairs. TAWG is the leading HIV/AIDS NGO in Tanga Region. Its staff are highly qualified, dedicated, and committed to improving the quality of PLWAs lives. Members have expertise in counseling, psychology, medicine, education, botany, research, medical anthropology, and management.

TAWG's work is a good example of how positive results can be achieved in the fight against AIDS by knitting together local expertise and resources, indigenous knowledge, and modern health workers into a fabric that provides effective low cost treatment for people living with AIDS.

TAWG'S TREATMENT PROGRAM

TAWG's signature activity is treating patients in the hospital or at home with medicinal plants. In the newspaper Nipashe on February 23, 2002, TAWG spokesperson Dr. Samuel Mtullu reported that TAWG's treatment generally improves and lengthens patients lives. He added that some patients who had HIV related opportunistic infections visibly improved after taking the traditional medicines.

The medicines are more effective, however, if treatment is initiated during the early stages of HIV/AIDS. The medicines are low cost, effectively treat selected opportunistic infections, readily available, are provided to patients free of charge, and have been used for Tanzanian healers for centuries. Given in the proper form and dosage, they are very safe.

TAWG's medicines increase appetite, help patients gain weight, stop diarrhea, reduce fever, clear up oral thrush, resolve skin rashes and fungal infections, treat herpes zoster, and clear ulcers. Treating patients extends their longevity, improves the quality of their lives, and reduces the number of orphans since parents remain alive.

TAWG also works closely with the government, runs seminars for traditional healers, and has an effective education and HIV/AIDS prevention program. TAWG currently treats around 400 patients in Tanga, Pangani, and Muheza Districts. Since TAWG began in 1990 they have treated around 2,000 patients. During the last six months, the amount of patients treated has doubled, indicating the rising number of HIV/AIDS cases.

TAWG's collaboration with traditional healers and the Ministry of Health has created a small island of hope in our seaside town. Patients are now living longer and better lives, so consequently there are fewer recently orphaned children. Healers have taken the prevention and public health messages back to their villages -- many even distribute condoms -- and most now know when to refer a patient to the hospital.

Though not a cure, the traditional medicines prolong life by combating pathogens similar to those that attack plants. At least now, patients in Tanga Region have a low cost effective alternative to expensive imported anti retro-virals.

These expensive new therapies, by the way, often lose their knockout punch over time. Hence, treating patients with traditional medicines has as much validity now as it did thousands of years ago. By having healers and doctors synergistically combine forces, new trails are being blazed which benefit all of us.

TAWG welcomes inquiries and visitors. See for yourself or call TAWG for more information. Here are TAWG's coordinates:

Location: Cliff Block Bombo Hospital Tanga, Tanzania
Address: P.O. Box 1374, Tanga, Tanzania
Phone/FAX: +255 27 2642266
Website: www28.brinkster.com/tawg
Contacts: Dr. Samuel Mtullu - Coordinator
Dr. Anna Chaze - Chairperson
Dr. Firmina Mberesero - Former Chairperson and Board Member
David Scheinman - Board and Founding Member

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David Scheinman has lived in Tanzania since 1980 and, since 1990, has been working with traditional healers in discovering efficacious medicinal plants to treat HIV-related opportunistic infections. He has a Master's degree from Cornell in International Agricultural and Rural Development and is a founding member of the Tanga AIDS Working Group (TAWG). You can contact him at tanga4@tanga.net.



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Contact Information

Mailing address:

Terrawatu
P.O. Box 2652
Arusha, Tanzania
East Africa

Telephone/fax/internet:

In Tanzania: +255 744 312202 or 693826
In USA: 1 206 226 3882
Fax: 1 775 618 0922
Email: info@terrawatu.org
Website: www.terrawatu.org

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“Religious people must do more than offer prayers if the world is to become a better place to live.”
- His Holiness the Dalai Lama

