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ICIK East Africa Working Group

The ICIK Working Group on Indigenous Knowledge and Development in East Africa convened its spring semester symposium on Friday, April 17, 2009, to discuss projects currently under way in East Africa and plan for summer 2009 activities in Kenya and Tanzania.

The vision for the ICIK East Africa Working Group is to:

- ♦ Enhance communication among PSU faculty interested in conducting collaborative and participatory community-based research and outreach in East/Southern Africa; provide opportunities for students to learn from/with community members in East/Southern Africa; engage with communities in East/Southern Africa to address issues related to poverty and the UN Millennium Development Goals;
- ♦ Assist PSU faculty/staff/students in establishing contacts and identifying potential collaborators in Kenya, Tanzania, and Uganda (East Africa), as well as in Namibia and South Africa; and
- ♦ Assist PSU faculty in identifying opportunities for community-based, collaborative initiatives in East/Southern Africa and in identifying sources of financial support for innovative, sustainable, and entrepreneurial (ISE) projects that are championed by PSU faculty.



Fall Semester Working Group Retreat

What: Fall Retreat for the ICIK Working Group on Indigenous Knowledge and Development in East Africa

Where: Transportation Research Building Conference Room, Hastings Road, PSU University Park Campus

When: Friday, November 13, 2009, 9:30 a.m. - 3:30 p.m. (*Lunch, including vegetarian choices, will be provided.*)

Who: Faculty and students working on, or interested in, community projects related to Indigenous Knowledge and the UN Millennium Development Goals in Tanzania, Kenya or Uganda are encouraged to attend.

Agenda: The tentative agenda will be distributed through the ICIK list-serve with registration to be confirmed by November 1, 2009

ICIK Faculty and Students in Kenya – Summer 2009



Penn State faculty members, Khanjan Mehta, Tom Colledge, Janelle Larson, Peter Butler, Sjoerd Duiker and Margaret Slattery spent three weeks in Kenya in May-June. During this time they worked with PSU students on three projects – Mashavu, WishVast and the Zawadi EcoVillage - and took part in a 2-day forum titled “Youth and Sustainable Livelihoods: Our Common Future”. The forum was attended by more than 30 academics, representatives of local non-governmental organizations, government agencies and social service providers who reviewed the PSU collaboration with the Children and Youth

Empowerment Centre (CYEC) and developed the Zawadi EcoVillage initiative. The work of the 31 PSU students who traveled to Kenya was a culmination of two semesters’ activities in humanitarian engineering and social entrepreneurship, involving about 150 students from eight colleges who learned about design and entrepreneurship for developing communities and the culture, economics and life in Kenya, as well as issues related to street children. Students and faculty from ALL colleges across Penn State are invited to participate in various ways on these projects in the spring 2010 semester with travel to Kenya planned for summer 2010. For more information, contact Khanjan Mehta

khanjan@engr.psu.edu for Mashavu or WishVast or Tom Colledge thc100@psu.edu for the EcoVillage.

The CYEC is an initiative of the national program for street dwelling persons and is intended to play a central role in the innovation of holistic and sustainable solutions for the population of street dwelling young people in Kenya. For more information, visit: www.cyec.net. or contact Janelle Larson at [<jbl6@psu.edu>](mailto:jbl6@psu.edu)

Eplum Model Assessment

The Eplum model has been developed to engage students and faculty in humanitarian engineering and social entrepreneurial ventures being undertaken in Kenya. The objective is the convergence of disciplines, concepts, cultures, and countries towards a freer, friendlier, fairer and more sustainable planet. Such ventures require skills and knowledge from various disciplines across campus. The Eplum model is designed to engage students and faculty in various formal and informal ways from the sub-credit to the multi-credit level. During the 2009-2010 academic year, an assessment will be carried out to learn how different forms and levels of engagement contribute to internationalization, public scholarship and multidisciplinary teamwork. The Schreyer Institute for Teaching Excellence at PSU is providing funding for the Eplum assessment.

Student Engineering and Agricultural Projects at CYEC

Working in multi-disciplinary teams, PSU students employed a systems perspective in designing culturally appropriate strategies to assist in the care and nurturing of children and youth at the CYEC. The students worked with CYEC residents to build prototypes of affordable technologies for sustainable agriculture, water harvesting and purification systems, renewable energy generation and housing construction. Specifically, they built a high tunnel (greenhouse), a drip irrigation system, a small-scale biodiesel plant, a bicycle-powered electricity generator, a system to collect and store roof water runoff, a biological slow sand filter to purify and re-use waste water, a merry-go-round pumping system and a rammed-earth structure. They also trained CYEC youth to construct and maintain these systems. The prototypes are being used for income generation and also as demonstration systems for fostering simple technology-based entrepreneurship.



The Lamuria EcoVillage

The initial Zawadi EcoVillage will be located in Lamuria, a small rural community in the Rift Valley. A preliminary community assessment was carried out in June by CYEC staff and youth and PSU faculty and students. As in many regions of sub-Saharan Africa, access to water is limited in Lamuria. The long-term strategy, therefore, will be to identify, develop and demonstrate technologies and practices relating to agricultural production, land use, water harvesting, power generation and entrepreneurship that will enable the Zawadi EcoVillage to thrive in a semi-arid environment. Local knowledge will be incorporated in the development of these technologies and in the selection of agricultural cultivars. The Zawadi EcoVillage will serve as a model and an educational centre for Lamuria and the surrounding region. For more information contact Janelle Larson jbl6@psu.edu.



Mashavu: Networked Health Solutions for the Developing World

The Mashavu team field tested its telemedicine system for improving access to pre-primary healthcare at three demonstration clinics that were held in Kenya during summer 2009. A Mashavu kiosk consists of low cost biomedical devices designed by Penn State students. The system employs a combination of student-designed and open-source software to record and monitor vital health information that can be shared with distant health care professionals.



Fifteen PSU students, from the Colleges of Engineering, Information Science and Technology, Business, Health and Human Development, and the School of International Affairs met with nurses, doctors and health officials to assess the feasibility of Mashavu. The demonstration clinics were an opportunity for students to gather information about the usability of the biomedical devices and test

remote data sharing, while giving local Kenyans an opportunity to learn their vital signs, including body temperature, pulse, blood pressure, height and

weight. The meetings and interviews helped the students learn about health care challenges in East Africa and consider additional applications for Mashavu. One surprising observation was that there is a surplus of trained, but unemployed, nurses in Kenya who could serve as Mashavu kiosk operators. To learn more about the Mashavu project, visit www.mashavu.com.

WishVast: Building Trust and Social Capital using Cellphones

The PSU WishVast team designed and field tested a cellphone-based social networking system to facilitate trust building and social capital development in Kenya during summer 2009. Due to the pervasiveness of cell phones in the region, the team designed a system that would allow cell-phone users to connect as part of networks, similar to the way people in the US connect on Facebook, LinkedIn or Twitter. A WishVast network includes the capability to rate others, similar to eBay ratings, and it allows people to connect in conducting business. The WishVast technology proved to be viable in different situations ranging from people finding jobs and farmers selling their produce directly to consumers to entrepreneurs looking for finance in an informal economy. By connecting people in this manner, WishVast hopes to help spur economic growth and alleviate poverty. The PSU students met with nearly 100 individuals in Kenya to gather data and test the concept. To learn more about WishVast, visit: <http://sites.google.com/site/thewishvastproject/>.

To see more photos from the Humanitarian Engineering & Social Entrepreneurship initiatives in East Africa, visit: http://www.cedcc.psu.edu/khanjan/cNyeri/2009_Nyeri.htm.

MUCo Science Teacher Education Initiative in Tanzania

PSU faculty associated with ICIK and Makumira University College (MUCo) faculty have recently formed a team to design a new Bachelor of Education in Science (B.Ed.Sci.) program for Tanzania. The MUCo Science Education Initiative Team was formed in 2008 after the ICIK Working Group received a request from the MUCo administration to help develop a science curriculum for preparing secondary school teachers in Tanzania. The Team met in spring 2009 at University Park to establish principles for creating such a program. The meeting included science educators from the PSU Colleges of Education, Engineering, Agricultural Sciences and Life Sciences as well as two representatives from MUCo. The spring meeting was followed by a summer 2009 visit to MUCo by two Penn State faculty members who interviewed Tanzania science teachers and observed science classrooms.

MUCo plans to offer a B.Ed.Sci. program that prepares teachers in physics, chemistry and biology. The degree course is aimed specifically at producing science teachers who will be capable of training high school graduates to work in science-related occupations such as research, technical advising or business. The B.Ed.Sci. program at MUCo will emphasize practical skills to develop the scientific expertise needed in Tanzania and will employ a pedagogy that involves participatory teaching and learning techniques, innovation, and an entrepreneurial focus that encourages students to produce useful products to solve real life problems. This vision provides a rationale for establishing a 3-year B.Ed.Sci. program emphasizing innovation, critical thinking, discovery, and entrepreneurship to create a new cadre of secondary school teachers who can prepare students in Tanzania to “do science” rather than simply “study science.”

The MUCo Science Initiative Team is recruiting faculty and students interested in preparing for a summer 2010 workshop in Tanzania to launch the program. For more information, contact Ladi Semali at lms11@psu.edu

Nutri-Business Developments in Kenya

Chiparoos:



In July- August 2009, Edward Mills, Associate Professor of Dairy and Animal Sciences, and Audrey Maretzki, Emeritus Professor of Food Science and Nutrition, were invited by

Dr. Judith Ernst from Indiana University to assess the feasibility of establishing community-based nutri-businesses to process and market shelf-stable, meat-containing foods in rural Kenya. The concept of



safely producing a value-added meat product suitable for infants, young children, individuals with compromised immune systems and others with special nutritional needs, under the relatively primitive conditions that exist in rural communities in Sub-Saharan Africa, was initially the topic of Stephen Kieras' M.S. thesis in Food Science in 1997. Stephen called the product a “chiparoo”. Mills has continued to fine-tune the process and hopes to pilot the production of chiparoo-like products that contain both meat and a starch ingredient in Kenya during the coming year. Mills and Maretzki were accompanied on their trip by Alyssa Simon, a 2009 NYU graduate who is preparing a press release on the Kenya field visit.

For additional information contact Edward Mills at EMills@psu.edu.

KARI Convenes Nutri-business Get-Together



The first two women's nutri-business cooperatives in Kenya were established in the 1990s through a USAID higher education development linkage project led by Penn State that also involved Tuskegee University and the University of Nairobi. When the initial project funding ended for the Murang'a and Bomet sites, USAID/Kenya engaged the University of Nairobi and, later, the Kenya Agricultural Research Institute (KARI) in the establishment of two additional nutri-business sites in Mbeere and Makueni. During

Maretzki and Mills' visit to Kenya in August 2009, KARI convened a meeting of individuals interested in learning how best to support local nutri-business groups engaged in the value-added processing of unique, nutritious, shelf-stable foods from



locally-grown agricultural commodities. KARI plans to host a trip to the existing nutri-business sites to learn from the local residents what is needed to achieve their long term sustainability as local micro-enterprises. KARI is also issuing a contract to provide product marketing support for the groups.



For additional information contact
Audrey Maretzki at
anm1@psu.edu.



Creating a Library System for Rural Communities in Africa

Sylvia Nyana, who presented the ICIK Seminar in August 2009, has been published in the November 1, 2009 issue of the online *Journal of PanAfrican Studies*. Her article, "Creating a Library System that Serves the Needs of Rural Communities in Africa South of the Sahara," can be accessed at the journal's website: <http://www.jpanafrican.com/currentissue.htm>, or directly in pdf format at: <http://www.jpanafrican.com/docs/vol3no1/3.1%20Library%20System%20Africa.pdf>.

For more information contact Sylvia Nyana at san17@psu.edu.

2009 ISIK Conference / Western Australia

The University of Western Australia and the University of Notre Dame (also in Australia), are sponsoring this year's ISIK (Indigenous Studies: Indigenous Knowledge) conference in Western Australia from November 30 – December 1, 2009. This is the fourth in an annual series of conferences for academics and researchers to discuss and share developments in the field.

The theme of this year's conference is *Indigenous Studies, Indigenous Knowledge; Dialogue or Conflict in the Academy?* To coincide with the International Year of Astronomy, a key focus is on indigenous science and cosmology.

Participating in this year's conference is David Begay, a Native American astronomer.

Registration forms and further information is available on the web at www.isik.org.au.

Information on David Begay is available at: http://sunearthday.nasa.gov/2005/na/bio_davidb.htm.



Whiting Center Endowment for Indigenous Knowledge

Penn State has received \$100,000 from the Marjorie Grant Whiting Center for Humanity, Arts and the Environment to support indigenous knowledge studies and activities. The gift will create the Marjorie Grant Whiting Endowment for the Advancement of Indigenous Knowledge.

According to Ladislaus Semali and Audrey Maretzki, co-directors of the University's Interinstitutional Consortium for Indigenous Knowledge (ICIK), earnings from the endowment will be used to develop interdisciplinary courses; fund indigenous knowledge-related research, education and outreach efforts of faculty and graduate students; and support visiting scholars and lectures. The consortium is a collaborative initiative of the College of Education and the College of Agricultural Sciences.

American Indian Art Exhibit Opens

To commemorate the 40th anniversary of the American Indian Leadership Program at Penn State, The University Libraries' Diversity Committee and the American Indian Leadership Program are co-sponsoring an art exhibit in the Diversity Reading Room, Pattee Library - September 28-October 25, 2009. The exhibit was commissioned by the Office of Indian Education, U.S. Department of Education. The theme is: "Tradition is My Life: Education is My Future." For additional information, contact Susan Faircloth (scf2@psu.edu) or Lana Munip (lana@psu.edu).

Maretzki said the Whiting Endowment was established at Penn State because of ICIK's efforts to illustrate the synergy between academic and indigenous knowledge systems and to enhance communication and collaboration between local communities and the academy.

Indigenous knowledge is an emerging area of study that focuses on place-specific ways of knowing, seeing and thinking that may reflect many generations of observation, experimentation and innovation in everything from agriculture, animal husbandry and child-rearing practices to education, medicine and natural resource management. Penn State is part of a global network of more than 20 indigenous knowledge resource centers and is the only center currently active in the United States.

Deanna Behring, director of the Office of International Programs in the College of Agricultural Sciences, noted that a Penn State faculty committee, co-convened by Leila Brataschia from the College of Education, has been established to advise on the use of endowment earnings. The committee will hold its second meeting in early November.

The Marjorie Grant Whiting Center for Humanity, Arts and the Environment is located in Woodland, California. It conducts, sponsors, and supports charitable, scientific and educational activities and programs to further the work and interests of the late Marjorie Grant Whiting, an internationally known nutritional anthropologist.

The Center was established after Whiting's death in 1995 to preserve her scientific and humanistic legacy as a researcher and teacher who

contributed to an understanding of the cultural interface between diet and health among people around the world. Through its activities and programs, the Center promotes the socio-cultural, nutritional, educational, and economic development of underserved population groups, with respect for their indigenous knowledge.

Educated at Cornell University, Columbia University and Harvard University, Marjorie Grant Whiting served in China as a nutritionist for the United Nations Refugee and Relief Association and the American Red Cross, and was a commissioned officer in the U.S. Public Health Service. She later served as a nutritional anthropologist with the National Institutes of Health and the U.S. Department of Agriculture, and worked with the Food and Drug Administration and the Emergency Food and Medical Service of the Office of Economic Opportunity. She is best known for her research on the debilitating neuro-toxicological Guam Disease, which she associated with consumption of the cycad plant by the Chamorro residents of Micronesia. After retiring from government service, Whiting was a lecturer and adjunct professor at Penn State, the Catholic University of America and the Smithsonian Institution.

Information about Marjorie Grant Whiting and the Center for Humanity, Arts and the Environment can be found at:

www.marjoriwhitingcenter.org.

Information obtained from Penn State Live

Spotlight: Mary-Alice Marete 2009 LEAP Fellow



I am grateful for the opportunities ICIK offers for exchange of ideas on indigenous knowledge through its scheduled seminars. This knowledge has helped me gain a better understanding of, and appreciation for, the indigenous knowledge that is central to food and nutrition security in developing countries. As a 2009 Borlaug Leadership in Agriculture Program (LEAP) fellowship award recipient, my aim is to contribute to efforts being made in my home country of Kenya to achieve the UN Millennium Development Goal of reducing poverty and hunger.

The Borlaug LEAP fellowship program is funded by the United States Agency for International Development (USAID) to enhance the quality of thesis research of graduate students from developing countries.

The LEAP fellowship will support my Ph.D. research on a nutri-business value-addition cooperative involving rural women in the Central Province of Kenya. The Murang'a nutri-business cooperative was initiated through a collaboration involving U.S. and Kenyan universities' to assist rural Kenyan women in the development, processing and marketing of a healthful, culturally appropriate, shelf-stable complementary weaning food. My study will focus on the sustainability of the group's economic initiative.

I am indebted to the College of Agricultural Sciences (CAS), the Africana Research Center (ARC) and the Social Science Research Institute (SSRI) for funding a pilot study for my Ph.D. research project.

Mary-Alice is a graduate student in the Department of Agricultural and Extension Education at Penn State. She can be contacted at mmm455@psu.edu.

The National Peace Corps Association



The National Peace Corps Association recently launched the new "Africa Rural Connect" (ARC) website at <http://arc.peacecorpsconnect.org/>. ARC is an experiment in global collaboration that responds to some of the oversights in African development. ARC is focused on building a diverse transnational community of Africa scholars, Peace Corps

volunteers, African farmers, and rural activists to come together to discuss the best solutions to agriculture-related issues (land retention/access, food production, storage, transportation, agribusiness, etc.) in Africa.

You are invited to join this community. Whether you are a scholar, a researcher, a development worker, farmer, mother, critic of international development, businesswoman, urbanist, pastor, social worker, or if you care about the future of Africa's agriculture sector, you have something to contribute.

ARC's online platform will be used to discuss the pitfalls and potential of proposed initiatives dealing with African agriculture. Anyone can propose a project, and anyone can comment. The goal will be to collectively strengthen project ideas in the hopes of producing the best possible projects responding to the needs of Africa's agricultural sector.

As the first order of business, ARC is coordinating a contest where you could win up to \$20,000 for the best business plan that improves agricultural practices in sub-Saharan Africa. Bring your experiences, your memories, and your creativity to help bring something new to the world of African development.



Penn State University Task Force on Latin America

Veronica Montecinos, Professor of Sociology at Penn State Greater Allegheny, issued a call to the ICIK network on August 17, 2009. Professor Montecinos is a member of the University Task Force on Latin America, which is part of the globalization strategy designed by the University Office of Global Programs. One of the responsibilities of the Task Force is to collect information about current Penn State University engagements in Latin America.

Any PSU faculty member whose work involves cooperation with institutions in Latin America is encouraged to contact Professor Montecinos (vxm11@psu.edu).



Connecting on Indigenous Agriculture

Stanford University PhD student, Noa Kekuewa Lincoln, would like to connect with people working in the area of indigenous agriculture. She is particularly interested contacting those individuals with experience in integrating indigenous agriculture into educational curricula.

Please contact Noa directly at 808-217-7710 or nlincoln@stanford.edu if you are interested in communicating with her on this topic.

Spend Thanksgiving in Bolivia This Year!

- ✓ Join the Fall Delegation to Bolivia: Food Sovereignty and Indigenous Resistance.
- ✓ Spend Thanksgiving celebrating indigenous resistance and exploring food sovereignty issues in Bolivia, the first country in the hemisphere to be governed by an indigenous president.
- ✓ Learn about indigenous struggles for sovereignty over food, land, and water.
- ✓ Meet with farmers, community leaders, government leaders, and others.
- ✓ Experience the rich culture of the Andes and soak in the sights, sounds, people, and politics in this historic moment in Bolivia.



When: November 20-29, 2009 (departing November 19)

Where: Start and end in La Paz; visits to Coroico and Coripata (Yungas de La Paz), Cochabamba and Chapare

Cost: \$800. This will cover all lodging, all ground transportation, at least two meals per day, and translation. Additional expenses during the trip will be minimal. **Airfare not included. Possible group rate available for those traveling from NYC.**

Anyone interested should email cbalbertolovera@gmail.com as soon as possible, as space for this trip is very limited. Please allow a day or two for responses.

Sponsored by the Alberto Lovera Bolivarian Circle of NY.

Your Questions and Comments Are Welcome!

The ICIK E-Newsletter will be published at the start of each semester—Fall, Spring, and Summer. If you have questions or comments about this newsletter, or ideas for articles, features, or general information you would like to see in upcoming newsletters, please contact Dr. Ladi Semali or Dr. Audrey Maretzki. Questions regarding ICIK, generally, may also be directed to Dr. Semali or Dr. Maretzki.

We are grateful to Alyssa Simon and Khanjan Mehta for photos from Kenya that appear in this issue of the ICIK newsletter.



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We encourage your submissions for future newsletters. Please note the 2010 publication and submission deadline schedule:

Publication Month:

January 2010

September 2010

May 2010

Submissions Due:

November 1, 2009

July 1, 2010

March 1, 2010

Please Note: ICIK reserves the right to accept or refuse submissions, and to edit those submissions that are published.

About the Editor: Lori Thompson is a 2009 graduate of Penn State's Master of Professional Studies in Community and Economic Development. She currently serves as the Director of Planning and Administration at The College of New Jersey in Ewing, New Jersey. Her areas of interest are re-building sustainable, locally-focused, place-based communities and local economies through cultural and natural heritage restoration, preservation, and revitalization.

