

Limited Resources

ENDLESS

WHILE AFRICA LAGS FAR BEHIND MUCH OF THE WORLD WHEN IT COMES TO UNIVERSITY ENROLLMENT, the brisk growth in the number of students signing up for college courses in East Africa is straining already-strapped resources. Often, faculty teach hundreds of students each semester, have no room for class discussion, and have limited time to grade papers.

So a four-month stay at the University of Florida to work on their Ph.D. proposals must seem like a bit of paradise for three faculty members from Tanzania.

Wilson Joseph Mboya, an assistant lecturer in business administration at the University of Dar es Salaam, Hawa Mkwela, an assistant lecturer in land management at Ardhi University, and Benedictor Lema, an assistant lecturer in linguistics and language at the University of Dar es Salaam, came to Gainesville, Florida, this fall, reveling in the quiet time and the treasure trove of books and journals that are readily available.

At home in the classroom of their universities—both of which are based in Dar es Salaam—they might teach more than 1,000 students per semester. Because of the overload, test questions are multiple choice rather than analytical, there's no possibility for in-depth seminars, and lecturers have to strain to be heard. Outside the classroom, it's a constant flow of students to faculty offices, making it nearly impossible to spend time looking over students'

course work or updating class materials. As a result, "the quality of education is going to be low," Mkwela says.

Foreign Institutions and Organizations Invest in East African Higher Education

That's where foreign universities and organizations can come into play, helping to bolster higher education in a region of the world that greatly needs it. From 1991 to 2004, the gross university enrollment rate in Africa grew by more than 15 percent per year; yet despite that growth, the total enrollment rate for the continent remains at a lowly 5 percent, says Peter Materu, senior education specialist with the World Bank in Washington, D.C. and a former dean of the faculty of engineering at the University of Dar es Salaam. It's even worse in East Africa, where the gross enrollment rate stood at 2.2 percent in 2004, compared to 2.4 percent in Central Africa, 5.5 percent in West Africa, and more than 11 percent in Southern Africa.

EDITOR'S NOTE: feature article is the third in an occasional series on higher education trends in developing regions around the globe. The first article was "Developing Op

POSSIBILITIES



In East African nations—like Ethiopia, Kenya, Tanzania, and Uganda—higher education enrollments are soaring but resources are limited.

To help improve educational opportunities for East African students, foreign institutions and organizations are building partnerships and creating international exchanges.

BY SUSAN LADIKA

portunity in the Middle East,” which appeared in the March/April 2007 issue; the second

article was “Where the Students Are in East Asia” in the July/August 2007 issue.

FOTOSEARCH

Quality has suffered as universities built for 15,000 students enroll 30,000 students or more. At his former university, the number of students grew from less than 5,000 to 15,000 in less than a decade, Materu says.

And the problem is likely to get worse. The United Nations' Millennium Development Goals stress universal primary education by 2015. As a result, resources have been poured into primary education in East African nations, while little has been done to support postsecondary education. At the same time, as more students complete primary school and want to advance further, there will be even more demand for postsecondary education.

"There will be a big bottleneck, from my point of view," Materu says, particularly in areas like science and mathematics, where educators are lacking and many stay on the job just a short time before more moving into more lucrative fields.

In recent years, many foreign universities have launched or increased their activities in East Africa, working in conjunction with local universities. Programs span the spectrum, from assisting Kenyans to learn about good governance to helping Ethiopians cope with natural disasters.

Materu says when he was dean of engineering at the University of Dar es Salaam, the department had 21 cooperative projects with U.S. and European universities. "This is a very good way to strengthen institutions without exposing institutions in Africa to brain drain."

Yet he cautions against starting cooperative programs simply for cooperation's sake. "Cooperative programs have to match priority areas of economic development of a country," such as agriculture, infrastructure, and communications. "There's lots of evidence to show the link between the level of tertiary stock and the pace of growth."

One school taking an innovative approach is Cornell University in Ithaca, New York, which recently launched its first degree program in Africa, a master's of professional studies degree in international agriculture and rural development, established with Bahir Dar University in Bahir Dar, Ethiopia.

The program, which focuses on watershed management, is being taught by Cornell faculty who travel to Ethiopia and will not require the students to spend time at Cornell. Bahir Dar University is located on the shore of Lake Tana, the source of the Blue Nile. It's a place where rainfall is inconsistent, water disputes with neighboring countries are common, and the majority of the population relies on agriculture to earn a living.

Professor Alice Pell, director of Cornell's International Institute for Food, Agriculture and Development, says offi-

cial from Bahir Dar University approached Cornell for assistance with setting up a program in watershed management.

The World Bank is supporting 20 African students in the program, which began in early November. The course is being taught in three-week blocks, and requires 30 credit hours of instruction. A practicum will give students the chance to make use of what they've learned. "Any good watershed management program means a change in the behavior of the people in the area," Pell says.

Cornell plans to run the program for a few years and then turn it over to Bahir Dar. Pell says African universities "need to be a much more integral part of the development process than they are in most cases now."

That might be changing, at least in Ethiopia, as the government begins to take a bigger stake in development. In the past, many operations and services typically run by a government were handed over to nongovernmental organizations, says Tim Finan, director of the Bureau of Applied Research in Anthropology at the University of Arizona in Tucson.

The current government "decided to take the reins and create its own national capacity and do things that had been done by international NGOs," Finan says. As part of that, Bahir Dar University has begun working with the University of Arizona to create a regional center of excellence to deal with natural disaster risk management and sustainable development. The program is funded by a \$200,000 award from Higher Education in Development, in cooperation with the U.S. Agency for International Development. The Disaster Prevention and Preparedness Agency, Ethiopia's government agency that is responsible for disaster prevention and mitigation, is also involved.



Dr. Frederick Gravenir, from Kenyatta University, (second row, third from left) with Dr. Patricia Kelly, from Virginia Tech, (second row, fourth from left) and Josiah Tlou, from Virginia Tech, (last row, first from the left) and others selected to study accountability and transparency in governance in Kenya.



University of Wisconsin-Madison (UW) student Anna Lindsey at Lweza Primary School in Mukono District, south central Uganda. This is the school that a James Ntambi-now, a biochemistry professor at UW attended as a child.

The Ethiopian university sought assistance to develop a master's-level curriculum on natural disaster management and recovery, and the program involves in-person and distance education. The University of Arizona has extensive experience from around the world dealing with topics such as arid lands, range management, and irrigation.

The universities are still ironing out the details, but Finan envisions a program that focuses on skill building, seeking ways for the community to build internal resistance in the face of shocks, and reduce the level of vulnerability.

The aim is to "create the sorts of ties that are durable," Finan says. "I always marvel at how much well-developed human capacity one finds in other countries." Programs such as those being formed by Bahir Dar and the University of Arizona aim to tap into that local expertise. "I think you get a big bang for your development buck with these kinds of projects," he says, and the progress that is made is something that can be passed down through the generations.

The University of Wisconsin-Madison is on a similar path, forming a partnership with Makerere University in Kampala, Uganda, focusing on nutrition education thanks to a grant of nearly \$150,000 from the U.S. State Department.

The funding supports bachelor's and master's degree programs in nutrition and enhances existing courses in nutrition policy and food security, as well as faculty exchanges of a dozen scholars each

from the University of Wisconsin-Madison and Makerere University for about a month for each.

A second part of the cooperation, funded through the Ira and Ineva Reilly Baldwin Wisconsin Idea Endowment, is to help develop a nationwide nutrition education program, says Ken Shapiro, associate dean of the College of Agricultural and Life Sciences. Training is targeting health workers at 165 villages.

In Uganda, malnutrition is a major issue, with one-third of the population undernourished and one in seven children dying before the age of five. This experience helps University of Wisconsin-Madison faculty "put their expertise out in the real world," Shapiro says.

He says the university's strategic plan includes an emphasis on internationalization, with the notion, "the faculty should be giving back to society."

U.S. Students Get Involved

This sense of giving back stretches to the university's student population as well. After a three-week trip to Uganda in 2005 as part of a nutrition-based education abroad program, a group of undergraduate students decided they

wanted to make a difference and improve the health and nutrition in the villages they visited. So they started the Village Health Project. Through funding from the Wisconsin Idea Fellowship they began to build rainwater collection tanks, working with the Makerere University Institute of Public Health to design a cost-effective, easy-to-use water tank. The students also have been involved in helping to outfit houses with water filters.

"It's so incredible to meet people who are benefiting" from the tanks and filters, says Molly Isola, a 20-year-old junior who got involved after a trip to Uganda.

If a family or community raises enough money to pay for half of the cost of the water tank—which costs about \$1,000 for a community, or a filter—which costs about \$60 for a household, the Village Health Project will fund the other half. By having the recipients contribute to the project, "it increases the sense of ownership and responsibility for maintenance," Isola says.

With partnerships and projects such as these, it's not only the African universities that prosper. Isola calls the Village Health Project "definitely the best thing I've done in my education so far."

Her experience reflects the views of Finan, who believes such programs are a laboratory for learning for all those who are involved. "It allows for a new focus and new perspectives on everyone's side." In the past, a foreign "expert" would come in and impose his or her

way of doing things on the host country. "I don't think that's the most effective way of transferring resources," Finan says.

Materu of the World Bank agrees that while East African nations can attain economic growth through foreign investment and expertise in areas such as building roads or improving Internet connectivity, to sustain it, "you need to invest in human capacity."

The UK Partners with East African Universities

That's the key to the work being done in the region by the British Council, which aims to develop relationships between the United Kingdom and other nations. When it comes to higher education, its focus is to build capacity at higher education institutions. The British Council currently is funding nearly two dozen projects in East Africa with that goal in mind.

Some come under the England-Africa Partnerships (EAP) scheme, funded by the UK's Department for Universities, Innovation and Skills, while others fall under the Development Partnership in Higher Education (DePHE) scheme, funded by the government's Department for International Development. These specific projects were introduced in 2006, although the British government has



University of Wisconsin Professor Cynthia Haq during a three-week intensive field experience in Uganda.

Foreign Institutions Help East Africa's Higher Education System Deal With HIV/AIDS

ALTHOUGH HIV/AIDS poses major problems for East African universities as students and faculty fall ill and costs for things like transportation to funeral services rise, it's a concern few are ready to confront head on. Rather than admitting it's an issue sweeping across college campuses, it has typically been considered a "poor people's" disease, viewed solely through the lens of academic researchers and health care practitioners.

Because of the stigma, researchers "work on what happened in the community and not on what happened amongst us," says Edith Mukudi Omwami, an assistant professor from Kenya who serves as coordinator of the HIV/AIDS Initiative of the Globalization Research Center Africa at the University of California, Los Angeles. The disease is seen as a "poor people's kind

of problem. Being an elite institution, they were in denial."

Rather than focusing on prevention, the prevailing attitude has been "let's wait and deal with the crisis as it emerges," says Omwami, who co-authored a chapter on the impact of the disease on tertiary education for an upcoming book on HIV/AIDS in Africa.

The chapter, written with Paula Tavor, director of the Bixby Program in Population and Reproductive Health at UCLA, says university productivity and quality suffer as faculty become ill and eventually die from the disease, while other faculty immigrate to avoid the risk of contracting HIV/AIDS. "Death among faculty and immigration-related losses are hampering some university departments from offering the range of courses necessary for mastery of a discipline," they write.

But it's hard to gauge the overall

impact because African universities don't track things like staff absenteeism and funeral attendance, nor collect data on HIV/AIDS prevalence rates.

Few universities offer prevention education to their students, considering them the lost generation, and instead concentrate university efforts on educating schoolchildren.

But in some cases students are taking things into their own hands. At Kenyatta University in Nairobi, Kenya, students came out in force in 2004 to have their HIV/AIDS status checked.

While efforts within African universities may be lacking, foreign universities are working to address the problem in East African nations.

At the International Center for AIDS Care and Treatment Programs, Columbia University in New York City works to build capacity for family-focused HIV/AIDS prevention, care, and treatment. One who recently joined that effort is Asqual Getaneh, a physician who is associate director for programs. The Ethiopian native is in charge of supporting program implementation in Nigeria and Ethiopia.

long-standing ties with many countries in the region, says Gayner Tirebuck-Green, a British Council project manager who works on both schemes and is based in Manchester, United Kingdom.

While the EAP projects seek to develop capacity and address key needs in African higher education, the DelPHE projects aim to help African universities serve as a catalyst to reduce poverty and promote sustainable development by strengthening teaching and research skills, as well as by supporting the Millennium Development Goals and enhancing science and technology skills.

The projects range from using distance learning to reduce maternal and neonatal morbidity and mortality, pulling together efforts from the East Central & Southern African College of Nursing and the Muhimbili University College of Health Sciences in Tanzania, the University of Central Lancaster in the United Kingdom, and universities in Swaziland and Malawi; to helping teachers in post-conflict areas of northern Uganda develop skills in psychology and peace-building education, which is supported by Makerere and Kyambogo universities in Uganda, Stranmillis University College, a college of Queen's University in Belfast, Northern Ireland, and universities in Rwanda and Sierra Leone.

"Both programs invest in people," Tirebuck-Green says. "They build up the skills and knowledge of all involved, really."

International Exchanges to the United States Builds Applied Skills

One of those who has benefited from such partnership programs is Edith Tarimo, a faculty member at the Marangu Teachers' College in northern Tanzania. Tarimo was one of seven faculty members who came to Northeastern Illinois University in Chicago for a semester as part of a project funded by the U.S. State Department to prepare head teachers to work at primary and secondary schools in the area around Kilimanjaro as part of the Northeastern Illinois University's principal preparation program.

During her time in the United States, she received an introduction to such topics as curriculum development, school administration and supervision, and human relations and leadership. Even though she has returned to Tanzania, she's still doing coursework and preparing to receive a master's degree from Northeastern Illinois University. And Tarimo is putting what she learned to use in the classroom, teaching students who are heading out to secondary

Since the early 2000s, Getaneh has traveled to Ethiopia as a volunteer working with local organizations focused on prevention and making patients comfortable in their final days. In 2005 she joined up with the Christian Children's Fund of Canada to provide AIDS medication for patients. With treatment available, more people have come forward to know their HIV/AIDS status.

The hardest part, she says, is "trying to put together a program that is complex and expensive with infrastructure that is quite poor."

Academics from the University of Bergen and Bergen University College in Norway and the University of Dar es Salaam in Tanzania also have teamed up on the issue, pulling together researchers from such diverse fields as nursing, psychology, and anthropology. The aim is to understand both the

medical causes of HIV/AIDS, as well as the cultural and social dynamics behind its spread.

As part of that, African students have come to Norway to work on their Ph.D.s and master's degrees, and now some are staying home and working under the tutelage of the Norwegians.

Doctoral students have focused on subjects like education for AIDS orphans in Uganda, transmission of HIV through the milk of nursing mothers, and how guidelines from the World Health Organization exacerbate the problem, says Astrid Blystad, assistant professor of nursing science at the University of Bergen.

The goal of the program is to "try to close the gap between research and policy," she says.

The University of Toronto in Ontario, Canada is now becoming involved with the HIV/AIDS issue through

a new program with the University of Dar es Salaam. The Canadian university wanted to bring its expertise together with African universities, figuring "the sum of the whole is greater than its parts," says Aaron Yarmoshuk, director of the HIV/AIDS Initiative-Africa in the Centre for International Health at the University of Toronto.

The University of Toronto held a workshop in June in Dar es Salaam with a dozen universities to discuss strengthening voluntary counseling, testing, and antiretroviral therapy.

The Canadian university now is trying to determine the best way to assist with the issue. Among ideas being considered are engaging youth in physical activities to serve as a prevention tool and setting up videoconferencing links between the school and the University of Dar es Salaam.

Yarmoshuk is concerned because "representatives of universities in East Africa are dying of AIDS. They really shouldn't be. There are antiretrovirals available. If you can't assist people in the universities, how are you going to assist them in the villages?"

schools “and some are appointed to become heads of schools without undergoing any leadership courses.”

Janet Fredericks, dean of Northeastern Illinois’ Graduate College and director of international programs, says the goal of the program was to have the teachers’ college faculty take what they learned in the United States, and use it to develop a program for students and teachers back home. The Tanzanians visited a wide range of schools in Chicago, and were also involved in community and cultural activities.

They also were helping to teach courses like Swahili, as well as teaching life lessons to U.S. students. Fredericks remembers one Tanzanian’s comments after observing Chicago’s commuter society: “It must be very lonely sitting in your car with no one to talk to.”

“I really think we do tend to be rather isolated by our geography, by our circumstances, by the fact that we do not necessarily have to travel,” Fredericks says. “To be viable in the world, and not end up just as an isolated country ... people have to get an understanding” of other cultures.

in a brief internship in their field of choice, and develop a project to carry out back home, says Patricia Kelly, professor emerita in Virginia Tech’s Department of Teaching and Learning.

Frederick Gravenir, director of university advancement for Kenyatta University, says the program was such a draw because in Kenya the United States is viewed with admiration, and “there are quite a lot of lessons to be learned from a great democracy like the United States.”

Knowledge Builds Bridges

But the program is about more than training the Kenyans. Kelly sees it as the start of a relationship for the two universities to do research together, have faculty exchanges, and study abroad. “If faculty have international experience and focus, they bring it back to their classrooms.”

Such partnerships can also be a major boon to East African universities. Kenyatta University has links with dozens of universities in 20 countries in such far-flung places as Finland, Australia, and Korea. Most programs entail exchange of students and staff and research collaboration, while a few involve the development of joint programs and awarding of joint degrees, Gravenir says.

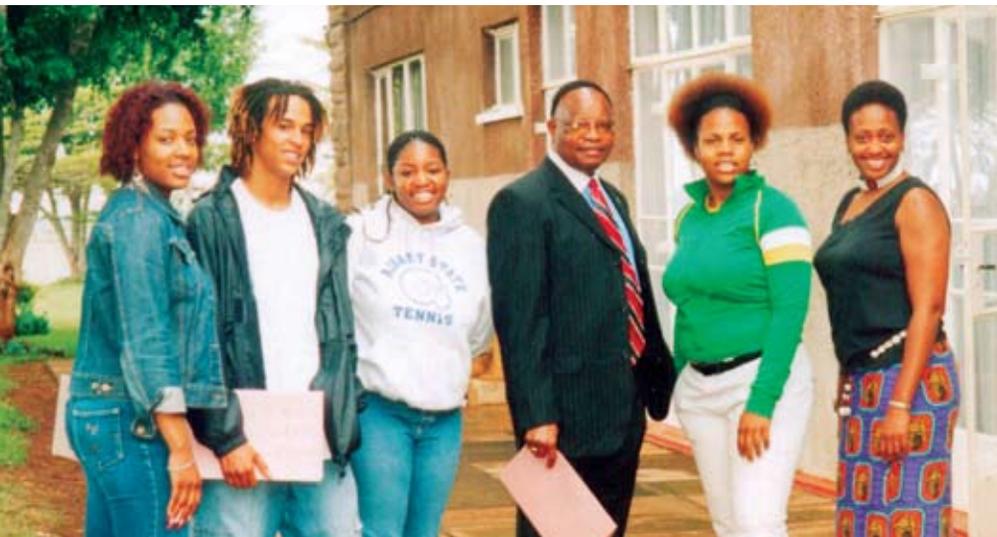
These ties have helped internationalize the university’s courses, students, and faculty; and many faculty members were able to obtain their Ph.D.s because of such ties. These efforts have also helped hone research skills, bring more resources to the university, and introduce fresh ideas.

For faculty members such as Mboya, Mkwela, and Lema, the three Tanzanians spending the semester at the University of Florida, the time away frees them to focus on their Ph.D. proposals—something they would never get at home with countless students clamoring for attention.

Mkwela is examining the decline of urban farms in Dar es Salaam. Plots of land in the city that once had been used for farming by the poor are now being converted into residences and businesses. “The urban poor depend on the farms. Something has to be done to allocate land for farming,” she says.

Lema, whose focus is on language and linguistics, is looking at the impact when youngsters learn to read and write two languages simultaneously—Swahili and English—rather than beginning to study Swahili first and English later.

Employee attraction and retention is the focus of Mboya’s Ph.D. Prior to the mid-1980s, Tanzania was a closed economy with few foreign investors. But foreign investment brought greater labor mobility, and job hopping has become commonplace.



Albany State University students from Georgia with Kenyatta University students in Kenya.

Another program working to do just that is a citizen exchange between Virginia Polytechnic Institute and State University in Blacksburg, Virginia, and Kenyatta University in Nairobi, Kenya, to develop a dialogue on responsible governance. Although Kenya attained political independence from Britain in the 1960s, it has struggled to become a true democracy. Through a grant of nearly \$240,000 from the U.S. State Department, the program addresses issues such as accountability and transparency and works with educators, and community and religious leaders.

The universities ran an advertising campaign seeking participants, and the response was overwhelming—more than 2,000 applicants vying for 22 slots. Along with training in Kenya, 10 participants will come to the United States, where they will take part

Unrest in Kenya Affects Universities

THE POLITICAL UNREST IN KENYA is affecting higher education there. Fighting broke out between Kikuyu and Luo tribes after Mwai Kibaki was declared the winner of the December 2007 presidential election.

Several Kenyan universities have postponed opening dates for the second semester due to post-election violence. Kenyatta University, United States International University (USIU), University of Nairobi, Maseno, Egerton and Moi universities. In fact, the opening of Maseno University in western Kenya has been postponed until April due to fear that it would not be "considered safe for Kikuyu students from Central Province, the home turf of Kikuyu President Mwai Kibaki, to return," according to AllAfrica.com, an online news site.

The New Vision, a Ugandan online news site, reported that many graduating students failed to attend a graduation ceremony at Kenya's Kampala University's Ggaba campus, in late January.

International Educator will continue monitoring the situation in Kenya to report developments as they arise.

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The opportunity to study at the University of Florida allows them to tap into a richness of resources sorely lacking in Tanzania. "At home we don't get the most recent books and journals," Mboya says.

The three also have a chance to attend presentations, be exposed to new thoughts, and take what they've learned to share with fellow faculty and students back home.

While some advocate distance learning as a way to overcome some of these issues, others see limitations to that approach.

Finan of the University of Arizona says one of the challenges is communicating with his counterparts at Bahir Dar University, which has limited bandwidth for information technology. One of their goals is to seek more funding to bolster IT infrastructure. "If we could begin to maximize the potential of distance learning, we could really begin to create the modality by which knowledge could be shared through the Internet," he says.

But Pearl Robinson, an associated professor in the Department of Political Science at Tufts University in Medford, Massachusetts, and president of the U.S.-based African Studies Association, has experienced those limitations firsthand. In the early 2000s, she developed a plan for curriculum co-development for Tufts, the University of Dar es Salaam, and Makerere University, an Internet-based model for teaching and learning. The plan involved developing and teaching course material together, using online exercises, discussion groups, and other tools.

In the past, African universities would download course materials, but now the focus is on "ways to teach with the Internet that enhances critical thinking and learning," Robinson says.

But that proved to be easier said than done. While teaching at the University of Dar es Salaam in 2003, she saw firsthand the problems of limited bandwidth, making it a major challenge to download books or hold videoconferences, as well as the limited numbers of computers themselves. While foreign organizations donate computers, they don't send spare parts necessary to keep them up and running. That meant computer technicians in Tanzania would cannibalize parts from one computer to keep another online, and students wound up having to share computers. Her year in Dar es Salaam made her "recognize how difficult it was for my East African colleagues because of the computer situation."

Challenges Create Opportunities

While bringing East African students and faculty to foreign universities overcomes many of these problems, it also causes challenges of its own. Gravenir said student and faculty exchanges are great in theory, but "these staff and students have to physically relocate, which implies expenditures for this to happen. For universities in the Northern Hemisphere, this is usually not a problem because they have the resources with which to implement this. However, for universities in the Southern Hemisphere, the situation is vastly different....What happens is a one-way flow of faculty and students from the north to the south."

Some schools, like Cornell, are trying to tackle this by bringing their degree programs to East Africa. Another program following that route is run by the University of Dar es Salaam and the University of Bergen and Bergen University College in Norway.

Initially, African students came to Norway to work on master's degrees and Ph.D.s dealing with AIDS. But a new program includes students from other African countries, and it allows them to remain at home as they work on their Ph.D.s and only come to Norway for brief stays, says Astrid Blystad, assistant professor of nursing science at the University of Bergen. Coming to Europe can pose a hardship for students and faculty who have to leave their families and children for months on end.

The new approach avoids the issue of brain drain because "you're not pulling out every potential Ph.D. student to Western universities. It's very important for southern institutions to gain the confidence to actually produce their own Ph.D. candidates," says Blystad, who has worked in Africa for years.

At the same time, having the program based in East Africa helps those universities in ways they sorely need by upgrading faculty education and strengthening those southern schools, she says. "Even small sums of money can make a big difference if you know a little bit about what you're doing."

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SUSAN LADIKA has been a journalist for more than 20 years, working in both the United States and Europe. She is now based in Tampa, Florida. Her last article for *IE* was "Promise of Peace" in the May/June 2007 issue, which focused on higher education institutions' work in promoting peace in Bosnia-Herzegovina.