

Curtiss Hall at the heart of the Iowa State University campus, home to the administrative offices of the College of Agriculture and Life Sciences, including the Global Programs Office

Introduction

This report provides a snapshot of global programs in the lowa State University College of Agriculture and Life Sciences in response to key initiatives for improving livelihoods in developing and transitioning countries around the world from 1987-2020 and is divided within the major time frames of 1987-2000 and 2001-2020. It is organized thematically within those timeframes to capture how the College responded to global needs and partnerships within a geopolitical framework. The report also showcases Global Program's ongoing priorities, successful public/private partnerships, and a robust study abroad program within the College. The first report on the history of international programs prepared by Dr. J.T. Scott, the first Director of International Programs in the College of Agriculture and Dr. R.A. Hoffman, covers the years 1945-1986. It is available online at www.global.ag.iastate.edu/about-global-programs. This report was authored by Denise Bjelland with layout assistance from Nicole Hurlburt and it is available at the same website.

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History of Global Programs

lowa State University formally began its international development and outreach activities in 1945 with the founding of the Iowa State College Tropical Research Center in Guatemala. In 1961, the College of Agriculture and Life Sciences (CALS) opened an office responsible for overseeing international activities, staffed by one graduate student. The International Agriculture Programs office was officially established in July 1973.

The history of international programs in CALS from 1945-1986 is thoroughly documented in a report available online at www.global.ag.iastate.edu/about-global-programs. That report includes information about private gifts and government investments in agrarian reform starting in the 1940s and into the 1950s with a tropical research project in Guatemala and agricultural extension programs in Argentina. Global engagement grew in the 1960s Green Revolution era with university institutional development programs in India, Brazil, and Uruguay and economic development and agrarian reform projects in Peru and Mexico. The 1970s global initiatives focused on agricultural sector planning and reform in Panama, Thailand, and Indonesia, as well as teaching and research collaboration in Costa Rica.

In the late 1970s, the U.S. Agency for International Development (USAID) funded a non-profit corporation called the MidAmerica International Agricultural Consortium (MIAC). The consortium, whose administrative oversight rested with CALS, consisted of five Midwestern land grant universities offering human resources and technical assistance for worldwide development projects. Under the MIAC umbrella, the 1980s saw CALS partner with other MIAC members for short-term professional services in East Africa's rural development, educational degree training for Morocco participants, and agricultural policy research capacity in Peru. Agricultural policy reform was an important focus in the 1980s, with College of Agriculture researchers providing expertise in Zambia and Thailand.

It is with this visionary foundation of global engagement that began in 1945 and continued to grow through the 1980s that CALS has strengthened and multiplied its programs to be a leader in global engagement, embracing its role in addressing challenges in global food security, food safety, climate change, environmentally sustainable stewardship, renewable energy, and human health and where passionate faculty, many of whom are prize winners and internationally recognized scholars, are confronting some of the world's most pressing issues. These partnerships are forged in countries around the world.

Since 1986, the Global Programs staff and the college's academic departments and research centers have been engaged in international research and development activities in over 40 countries worldwide. International involvement has served the needs of both ISU and cooperating countries. International programs have provided professional enrichment and continuing education for faculty and staff and have enhanced the education of many students. At the same time, they have provided educational programs for hundreds of international participants. Global opportunities for students through CALS Study Abroad have also enhanced the scope of programs and services, becoming a top priority area for the College.

Over the past 35 years, the geopolitical landscape has been radically transformed. CALS's global engagement has also been transformed to keep pace with this reality. While the following report serves to provide an overview of major global program initiatives in the college from 1987 through 2020, it must be acknowledged that many faculty members and staff quietly and consistently contributed daily to the growing reputation of the College as a leader in global programs around the world. This report does not capture the dedication of so many who have contributed so much to the stellar reputation of the College of Agriculture and Life Sciences as a global leader in research, teaching, and outreach.

1980
ISU Serves as Secretariat for World Food Prize

First Borlaug Fellow hosted through CALS

CALS establishes a service-learning program in the US Virgin Islands

1973

Global Programs office officially established

1995

ISU hosts USDA Faculty Exchange Program (FEP) Participants 2003

Center for Sustainable Rural Livelihoods established in Uganda

Key Initiatives and Global Impacts

1987-2000

WORLD FOOD PRIZE

In 1990, lowa State University was invited by The World Food Prize Foundation, located in Des Moines, lowa, to serve as the Secretariat for selecting an annual World Food Prize Laureate. The World Food Prize was the vision of Dr. Norman E. Borlaug, winner of the Nobel Peace Prize in 1970 for his work in global agriculture, for a prize that would honor those who have made significant and measurable contributions to improving the world's food supply. Beyond recognizing these leaders for their accomplishments, Borlaug saw The Prize as a means of establishing role models who would inspire others. His vision was realized when The World Food Prize was created in 1986 with sponsorship by General Foods Corporation. In its role as Secretariat for the first ten years of the administration of the Prize after it moved to Des Moines, lowa State University's CALS team annually solicited, received, and reviewed hundreds of laureate applications and provided an anonymous selection committee consisting of science-based experts and chaired by Dr. Borlaug, with a docket of the top nominees from which the laureate was selected. Since then, The World Food Prize has honored outstanding individuals who have contributed vitally to improving food quality, quantity, or availability worldwide.

Laureates have been recognized from countries around the world, including Bangladesh, Belgium, Brazil, Cape Verde, China, Cuba, Denmark, Ethiopia, Ghana, India, Israel, Mexico, Sierra Leone, Switzerland, Uganda, the United Kingdom, the United Nations, and the United States. (www.worldfoodprize.org)

ECONOMIC POLICY/ TRANSITION

• Czech/Slovak Republics: In the early 1990s, after Communist rule ended in the Soviet Union following massive public demonstrations and the fall of the Berlin Wall (1989), ISU CALS partnered with the ISU College of Business to receive funding from the United States Agency for International Development (USAID) to assist the Czech and Slovak Republics in their transition to a market economy. The first \$3 million phase provided technical assistance and training to faculty members of Czech/Slovak educational institutions in management and economics education. ISU established partnerships with the Universities of Agriculture in Brno, Prague, and Nitra. These universities were starting from scratch to build market-oriented curricula and teaching materials to improve teaching effectiveness. The project resulted in



Partnering with farm managers in the Czech/Slovak Republics

revising 90 percent of the economics courses and 20 percent of the econometrics and agriculture courses. With this successful joint effort, ISU applied and received a second phase USAID grant for \$5 million over four years for a project that would provide more direct assistance to the agriculture industry in the Czech/Slovak Republics. The success of both projects can be attributed, in part, to the development of a counterpart team methodology where ISU faculty members and U.S. agribusiness experts were matched with counterparts in the Czech/Slovak universities and collective farm managers and agricultural specialists. This moved the emphasis from a "train the trainer" approach to a team effort approach to determine what was needed and how to fulfill the needs. Each team developed a unique strategy for technical assistance in educational and agribusiness reform. (Led by: Drs. Harold Crawford, Robert Jolly, August Ralston)

- Ukraine: In 1996, the ISU Center for Agricultural and Rural Development (CARD) and the Ukrainian Academy of Agricultural Sciences (NAUU), now known as the National University of Life and Environmental Sciences of Ukraine (NUBiP), were tapped by USAID to develop an agriculture policy analysis to improve the capacity of decision-makers in Ukraine. The 4-year project involved working with the Ukraine Ministry of Agriculture in developing and advising on policy and relevant program design initiatives, coordinating with the International Monetary Fund (IMF) and the World Bank on farm restructuring and addressing farm debt resolution, and advising on the restructuring of the agricultural bank and the Ministry of Agriculture. (Led by: Drs. William Myers and Robert Jolly)
- Former Soviet States: Under the visionary leadership of Dr. Neil Harl in the Department of Economics, ISU also played a critical role in economic policy/transitions in the 1990s through agricultural banking schools in Russia, Bulgaria, Romania, Czech Republic, Slovakia, and Ukraine, with training programs in focus countries and on the ISU campus through funding provided by USAID, the United States Department of Agriculture (USDA), and Winrock International.
- Panama: Outside the former Soviet Union, ISU led a \$1.2 million economic policy development project with the Government of Panama along with a smaller program to train ag economists from Ecuador. (Led by: Drs. David Hansen and Lee Fletcher)

INSTITUTIONAL CAPACITY BUILDING

As defined by the United Nations, capacity building is developing and strengthening the skills, instincts, abilities, processes, and resources that organizations and communities need to survive, adapt, and thrive in a fast-changing world (www.un.org/en/ academic-impact/capacity-building). CALS has led efforts to build the capacity of agricultural universities, agricultural extension, research institutes, and government agencies around the globe.

Ukraine: From 1994 through1998, the National Agricultural University of Ukraine (NAUU), now
the National University of Life and Environmental Sciences of Ukraine (NUBiP), and Iowa State
University administrators and faculty worked together to design and implement a university
affiliation or "Linkage Project" sponsored by USAID. Twenty ISU and 33 NUBiP faculty and
administrators participated directly in the linkage project to (1) revise and restructure curricula; (2)
develop and acquire educational materials; (3) incorporate new teaching methodologies, and (4)
modernize NUBiP administrative structures.



Dr. Doug Kenealy (ISU) presenting at NUBiP as part of the Linkage Project



Dr. David Acker (ISU) and other dignitaries at NUBiP Knowledge Day Celebration in Kyiv, Ukraine

Global: This successful capacity-building linkage approach
was also applied in partnerships with the University of Costa
Rica, the University of Agricultural Sciences in Bangalore
(India), the National Agricultural Research and Development
Institute in Cape Verde, and the Higher Institute for Agricultural
Cooperation in Egypt based on each partner's identified
capacity building and training needs.



Research collaboration on bananas at the University of Costa Rica

AGRICULTURAL EDUCATION AND EXTENSION

Capitalizing on its expertise in agricultural education training and extension, ISU played an instrumental role globally in reinforcing the capacity of agricultural institutions,

universities, and organizations to enhance agricultural institutions and training, including training of smallholder farmers, technical-level training, and university-level training for effective research, extension, and agricultural education programs.

 P.R. China: Through funding from the U.S. Information Agency (USIA) and the U.S. Department of Agriculture (USDA), ISU's agricultural extension faculty and staff, along with lowa farmers, were engaged in projects in Zhejiang Province, P.R. China, to strengthen rural client-oriented research and education to rural communities in China while enhancing the competitiveness of lowa's food/agriculture by translating novel Chinese agricultural practices into lowa agriculture.



Dr. Richard Schultz (ISU) touring an agroforestry program in Zhejiang Province, P.R. China



Tea harvest on terraced fields



Field to table in a rural Chinese village

Global: Agricultural extension also played an important role in building the capacity of
environmental science training for farmers and farm leaders in Guatemala, in strengthening the
extension role and functions of agricultural biotechnology in Poland and Bulgaria, and in connecting
young Ukrainian mid-level managers with U.S. business leaders to promote free-trade principles
globally.

Key Initiatives and Global Impacts

2001-2020

SEED SCIENCE CENTER

The ISU Seed Science Center has a global reputation for education and research in seed issues. It is home to the world's largest public seed testing laboratory and annually trains scores of leaders and professionals in the U.S. and international seed industries. Working to provide access to quality seed, facilitating seed trade, and promoting the growth and development of the seed industry are important missions of the Seed Science Center's Global Programs. The center engages more than 135 faculty, affiliated faculty, staff, and students in cutting-edge research to support seed pathology, seed physiology, global seed programs, seed testing, curriculum development, seed conditioning, biosensing and information technology, risk management, seed health, and molecular quality assurance. Since 2000,



Researchers from Ghana at the ISU Seed Science Center

center scientists have designed and conducted projects in more than 80 countries worldwide to achieve these goals. www.seeds.iastate.edu

Seed Science Center efforts have included policy and regulatory harmonization in phytosanitary measures, plant variety protection, variety evaluation and registration, seed certification, and the development of national seed laws. In addition, center scientists working with the program have created ten process management manuals that serve as definitive resource materials on seed and biosafety policies and regulations.

• Activities since 2015 have included the development of a Seed Enterprise Management Institute (SEMIs) in Kenya, the establishment of the West Africa Seed Alliance (WASA), and the harmonization of seed policy in the Southern African Development Community (SADC). Scientists also facilitate international training and workshops designed to enhance seed policy and to educate and assist stakeholders at all levels of the seed industry.

COMBATTING GLOBAL HUNGER

"Feed the Future" is a USAID-led effort that engages American institutions in initiatives to combat global hunger. These initiatives bring partners together to address the root causes of hunger and poverty by boosting agriculture-led growth, resilience, and nutrition in countries with great needs and opportunities for improvement.

 Ghana: From 2013-2019, the College was engaged in two major USAID Feed the Future initiatives in Ghana totaling \$2.5M: (1) an ag policy support initiative focused on collaboration with Ghanaian agricultural ministry officials to improve policy analysis in Ghana, led by the ISU Department of Economics; (2) a Ghana seed industry program to strengthen the Ghanaian seed and fertilizer



Training at ISU to strengthen Ghanaian seed sector

industry through improved market information systems between private sector companies, agrodealers, business service providers, marketing entities and farmers, led by the ISU Seed Science Center. (Led by: Drs. Manjit Misra, John Beghin, Sergio Lence, and Joe Colletti)

e East Africa: In 2011, Iowa State University joined a consortium of other U.S. land-grant institutions (led by The Ohio State University) for a six-year Feed the Future Innovative Agricultural Research Initiative (iAGRI) to provide graduate degree training in agriculture and nutrition for young professionals from Tanzania. Under the iAGRI umbrella, ISU awarded five MS degrees in agricultural education and studies and one Ph.D. in agricultural biosystems and engineering to young Tanzanian professionals who, following receipt of their graduate degrees, returned to their home universities and extension stations with research-based training to affect change in individual mindsets and organizational strategies, structures, and systems. www.iagri.org



Ph.D. student from P.R China with a student from Tanzania who received Ph.D. from ISU through iAGRI program

- With assistance from Rockefeller Foundation funding, ISU also provided graduate degree training programs to promising scientists from Uganda and Kenya.
- Ghana/Uganda/South Africa-Agronomy: Building on Iowa State University's expertise with online plant breeding education and with funding from the Gates Foundation, Iowa State's Department of Agronomy led the development of the Plant Breeding E-Learning Africa (PBEA) project to contribute to capacity building in plant breeding in Africa by delivering a suite of high-quality, open-source, post-graduate-level course materials which comprise a comprehensive Master's e-curriculum in plant breeding and genetics. Collaborating with faculty at Makerere University in Uganda, the University of KwaZulu-Natal in South Africa, and Kwame Nkrumah University of Science and Technology in Ghana, the PBEA team creates e-modules that hone essential capabilities with real-world challenges of cultivar development in Africa using Applied Learning Activities. The collaboration embraces shared goals, sharing knowledge, and building consensus. The pedagogical emphasis on application produces a coursework-intensive MSc program for Africa. (Led by Drs. Walter Suza, Michael Retallick, and Kendall Lamkey)
- Global-Post Harvest: Food loss and waste is a global problem that negatively impacts the bottom line of businesses and farmers, wastes limited resources, and damages the environment. Led by lowa State University and funded by the Foundation for Food and Agriculture Research, the Rockefeller Foundation, and member institutions, the Consortium for Innovation in Post-Harvest Loss and Food Waste Reduction was launched in 2019. Through this consortium, thought leaders and experts from across the globe work in tandem with industry and nonprofit organizations to address the social, economic, and environmental impacts of food loss and waste. Through unique public-private partnerships, the consortium advances collaborative thinking and leverages the best global expertise, knowledge, and innovation for the sustainable reduction of post-harvest loss and food waste within the global food system. Member institutions include lowa State University, USA; the University of Maryland, USA; Wageningen University & Research, The Netherlands; Zamorano University, Honduras; University of São Paulo, Brazil; Stellenbosch University, South Africa; University of Nairobi, Kenya; Kwame Nkrumah University of Science and Technology, Ghana; and the Volcani Center, Israel. (Led by Dr. Dirk Maier)
- Ghana/Tanzania-Poultry: Iowa State University is a key collaborator on the USAID Feed the Future Innovation Lab for Genomics to Improve Poultry. In partnership with the University of California at Davis, Sokoine University of Agriculture -Tanzania, the University of Ghana, and the University of Delaware, ISU works to improve the production of chicken and eggs by households and small farmers, and thereby improve food security, nutrition, and livelihoods in Africa. The research includes fighting against Newcastle disease and heat stress in East and West African chickens and among some commercial lines. Dr. Susan Lamont, ISU Animal Science, coordinates the work at ISU and is the program lead, maintaining unique inbred lines of chickens to generate chicks for experiments conducted at ISU and the University of California at Davis.

Historical and Ongoing Priorities and Partnerships

INVESTING IN YOUNG PROFESSIONALS

High School Youth: Since completing its commitment as Secretariat to the World Food Prize in the 1990s, CALS continues to be involved in increasing the visibility of the Prize and encouraging youth to pursue careers that promote leadership in exploring and solving local, national, and global hunger and food security issues. ISU partners with The World Food Prize Foundation to host an annual lowa Youth Institute. This experience at Iowa State University allows high school students to engage with leading experts on critical global challenges, participate in hands-on activities, and explore exciting ways to make a difference in lowa and worldwide. Students selected to move on to the Global Youth Institute can also apply for an internship with the World Food Prize Borlaug-Ruan International Internship program, an 8-week experience working with world-renowned scientists and policymakers at leading



ISU and high school students gather at an ISU-hosted Iowa Youth Institute

research centers around the globe. All students accepted to the program receive an additional \$1,000 scholarship to Iowa State University. As of 2020, nearly 400 students that participated in the Iowa Youth Institute enrolled as CALS students in the following years.

 Since 2012, 2,283 lowa high school students and 400 teachers across the state have participated in the Global Youth Institute. In addition, more than 200 lowa high school students have traveled to Asia, Africa, Latin America, and the Middle East through the Borlaug-Ruan International Internship program to work alongside renowned scientists at leading research centers.

INTERNATIONAL VISITORS

8

CALS has hosted more than 1,500 visitors since 1986, some who spent a few days on campus to discuss possible future collaborations, some who were mentored by CALS faculty in specific research areas, and some who participated in targeted short-term activities. One example is CALS' partnership with Purdue University in 2000 and 2001 to host 25 fellows through an innovative program called I-HELP (International Higher Education Loan Program) that provided loans to help young professionals gain international experience and build leadership skills as they addressed two of the greatest challenges facing the world: food security and environmental sustainability. Twenty-five participants from 16 countries (India, Iran, Yemen, China, South Africa, Ukraine, Kyrgyzstan, Wales, Samoa, Kenya, Malaysia, Sri Lanka, Peru, Tanzania, Botswana, and Albania) participated in the 16-week program and returned to their home institutions to enhance



ISU hosts students from Yeungnam University, Republic of Korea for a two-week program

their institutions' research, teaching, and outreach capabilities. The program also resulted in long-term research partnerships between ISU mentors/professors and the I-HELP fellows.

Borlaug Fellows Program: Since 2002, ISU CALS has been an important partner with the U.S.
Department of Agriculture in providing training through the Borlaug Fellows programs. Under
these programs, USDA connects international fellows for a one-on-one mentorship at a U.S.
university, research center, or government agency, usually for 8-12 weeks. The trainees are

usually scientists, researchers, or policymakers who are in the early or middle stages of their

careers. ISU CALS has hosted more than 75 fellows from 20 countries, placed with ISU professors in 15 academic departments through 2020.

Faculty Exchange Program: ISU CALS also successfully participates in USDA's Faculty Exchange Program (FEP) and Cochran Fellowship Program managed by the USDA Foreign Agricultural Service. FEP was created in 1995 to bring instructors from agricultural institutions of higher learning to the United States for five months to increase their knowledge of and ability to teach and develop curricula at the university level. ISU has hosted 16 individuals from 6 countries (Iraq, Malawi, China, Serbia, Armenia, and Bulgaria).



The Fulbright Program: Iowa State University and its College of Agriculture and Life Sciences actively participates in the Fulbright Program. Funded by the U.S. Department of State, U.S. and foreign institutions of higher education, non-governmental organizations, private organizations, corporate partnerships, and individual donors, Fulbright awardees are given unparalleled opportunities in



ISU hosts visiting scholar from Rwanda as part of the Borlaug Fellows Program

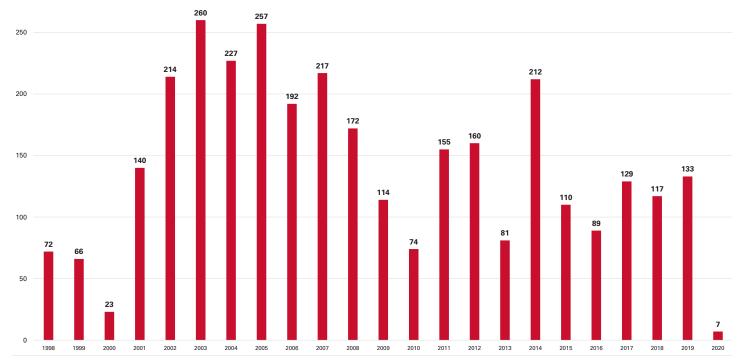


ISU hosts women in agriculture from Nigeria as part of Cochran Fellowship Program

all academic disciplines. Awardees include accomplished graduating college seniors, graduate students, young professionals, college and university faculty, and artists and professionals from various fields. Fulbright is unique in its bi-nationalism and is noted for its merit-based selection process and academic prestige. Fulbright alumni from the United States and worldwide have achieved distinction in government, science, the arts, business, philanthropy, and education. Among the ranks of Fulbright alumni are Nobel Prize recipients, MacArthur Foundation Fellows, Pulitzer Prize winners, and current or former heads of state or government. Twenty-eight lowa State University students have participated in the highly competitive U.S. Student Program from 1986-2020, eight of whom were enrolled in CALS majors. In addition, over 80 ISU professors and researchers have received Fulbright Scholar Program support to teach, conduct research and carry out professional projects worldwide in the past 35 years.

• International Student Enrollment: Globalization within CALS is significantly strengthened through the enrollment of international undergraduate and graduate students, which has averaged 255 enrollees per year from 50 countries enrolled in 28 majors. International graduate students comprise approximately 69 percent of total graduate student enrollment, while undergraduates comprise 31 percent in CALS.

International Visitor Data (1998-2020)



*Data based on College of Agriculture and Life Sciences Global Programs database records.

GLOBAL ENGAGEMENT

In its mission to educate future leaders, conduct mission-oriented basic and applied research, and share new knowledge for the betterment of lowa and the world in addressing challenges in global food security, food safety, climate change, environmentally sustainable stewardship, renewable energy, and human health, CALS has forged partnerships in countries around the world. With more than 175 agreements with universities and research institutions in 65 countries, CALS is committed to meeting global challenges and improving people's lives worldwide.

• Global Consortium of Higher Education and Research in Agriculture: In 1998, Iowa State University joined the National University of Life and Environmental Sciences of Ukraine and Humboldt University of Berlin (Germany) to establish the Global Consortium of Agricultural Universities (GCAU), later renamed as the Global Consortium of Higher Education and Research in Agriculture (GCHERA). The Consortium was formed out of shared concern for the future of the planet and a conviction that higher education in agriculture should play a leadership role in solving problems associated with food security and environmental sustainability. The Consortium aimed to include and serve institutions with programs in agriculture, veterinary medicine, and natural resources management, including these fields' biological, physical, and social sciences dimensions. The founders designed the organization to be helpful to institutions worldwide that were working to make significant reforms in their systems of higher agricultural education. GCHERA has become a confederation of regional or national higher education associations, with member organizations from Africa, the Americas, Asia, Europe, and Oceania.

Public/ Private Partnerships through Donor Support

The College of Agriculture and Life Sciences has excelled in educating future leaders, conducting mission- oriented basic and applied research, and sharing new knowledge in global food security, food safety, climate change, environmentally sustainable stewardship, renewable energy, and human health. Through the generosity of alumni and friends, the College has received major funding for faculty and student exchanges and long-term development to improve the livelihoods of vulnerable populations.

• Ensminger International Program: Marion Eugene Ensminger was dedicated to animal agriculture education, serving on the faculty at universities in Illinois, Massachusetts, Minnesota and Washington. In 1964, he organized Agriservices Foundation and launched a series of technical agriculture seminars held in more than 70 countries. In 1990, Ensminger contacted David Topel, then dean of the ISU College of Agriculture, to ask for help developing a series of seminars for Russia. From there, the College's Department of Animal Science worked with Ensminger on similar programs in Ukraine, Cuba and China and partnered with Ensminger to take over a series of textbooks he had written. Ensminger and his wife, Audrey, left an endowment to the university in the year 2000, providing for the creation of the Ensminger International Chair and resulting in the continuation of global seminars from 2008 through 2016 in Costa Rica, Spain China, Peru and Honduras, as well as other ongoing global activities in animal science.



Marion Eugene Ensminger

Ukrainian Exchange Program: Stefan and Kateryna Dwojak, active members of the American-Ukrainian community in the United States, were long-time supporters of an exchange program between Ukraine and Iowa State University. They learned about Iowa State's work in Ukraine in the early 1990s. Having observed the impact of these activities, they began supporting the program with donations and fundraising efforts. In 2003, the Dwojaks provided a major financial contribution to support student exchanges between the two countries. Their generosity has resulted in Iowa



Stefan "Steve" Dwojak



Kateryna Dwojak

State students studying in Ukraine. In return, more than 200 Ukrainian students, scholars, and trainees have studied at lowa State. The Dwojak gift kicked off a \$1 million project to support a scientific and educational exchange program between lowa State University and Ukraine.



Rector Dmytro Melnychuk (NUPiB) introduces Dr. Eugene Ensminger at Knowledge Day in Kyiv, Ukraine



Student interns from the Lviv National Agrarian University and the National University of Life and Environmental Sciences of Ukraine

Donor support also brought about the establishment of two satellite campuses.

Mpirigiti Rural Training Center: Kamuli, Uganda: The first satellite campus grew from establishing the Center for Sustainable Rural Livelihoods (CSRL) in 2003 to working in Uganda with Kamuli District residents to discover and implement sustainable solutions to meet the community's most urgent needs. Starting with farmer training, the center has evolved into programming that touches every life cycle stage. The in-country site was launched in 2006 in an abandoned building on the Nile River. In 2018, CALS opened new facilities in Kamuli that include quest housing for study abroad students and visiting faculty/staff, dining facilities, offices, a library, and conference spaces. A team of eight ISU faculty and staff work with more than 30 full-time Ugandan staff members to offer training and assistance in agriculture, education, nutrition, agronomy, livestock, youth entrepreneurship, and water/sanitation to rural farmers, women, and children in the Kamuli District of Uganda.



The program received international NGO status as the Iowa State University-Uganda Program (ISU-UP) in 2013.

• The major benefactor of the Uganda campus is Jerry ('62 agricultural business) and Karen Kolschowsky. They were already major supporters of the Sustainable Rural Livelihoods (SRL) program in lowa State's Colleges of Agriculture and Liberal Arts and Sciences when, in 2004, they accompanied college and program officials on a trip to Uganda to see both the challenges and the work that was being done to help people increase local food security, strengthen sustainable resource use practices, increase sources and levels of income, and improve household and community well-being. Almost immediately after that trip, the Kolschowskys announced that they were permanently endowing the Center for Sustainable Rural Livelihoods (CSRL) program on a scale that would enable it to undertake a large-scale effort in Uganda, a commitment now totaling \$10 million. Since then, hundreds of alumni, students, faculty, staff, and friends have come beside them to financially support the mission and operation of CSRL's work in Uganda.



CSRL and ISU-Uganda Program benefactors Karen and Jerry Kolschoswky with their son, Tim, at the official opening ceremony of the Mpirigiti Rural Training Center

These four dedicated and visionary ISU faculty led and promoted the establishment of the Center for Sustainable Rural Livelihoods. Since then, many other ISU faculty, staff, and students, along with Ugandan program specialists, have followed their lead to sustain and grow the mission of the Center to develop sustainable communities and responsible global citizens.







Dr. Lorna Butler



Dr. Dorothy Masinde



Dr. David Acker

SERVING RURAL KAMULI DISTRICT THROUGH THE ISU-UGANDA PROGRAM



Womens' crafts Community Income Generation Innovations activity



School lunch program



Conduct youth workshop to create a positive attitude towards farming



Nutrition Education Center training



Education through student service learning



Working with youth to promote appropriate technologies to increase food production

THE MPIRIGITI RURAL TRAINING CENTRE (MRTC) AND OTHER IOWA STATE UNIVERSITY FACILITIES IN KAMULI DISTRICT UGANDA



Original Headquarters for the ISU/Makerere University Service-Learning Program



ISU-Uganda Operating Headquarters from 2008-2018

MPIRIGITI RURAL TRAINING CENTER (MRTC) OPENED IN 2018



The Wintersteen Lounge at MRTC provides space for gathering and relaxing.

(Funded by Robert and Wendy Wintersteen)



Full-service kitchen at MRTC funded through benefactor, Rose Boughton



Winterhof Commons at MRTCaccommodates 75 people for training sessions, meetings and dining. (Funded through a generous donation from Roger Winterhof)



ISU CSRL team, project donors, ISU and Makerere University students, and ISU-Uganda local staff celebrate the opening of the Mpirigiti Rural Training Center (program headquarters) in Kamuli, Uganda

Fork in the Road Station: St John, U.S. Virgin Islands: Benefactors Dana ('67 dairy science) and Martha Robes have generously invested in Iowa State University over the years with gifts of time and treasure. They established the EARTH Service-Learning Program in the U.S. Virgin Islands, which enables lowa State undergraduate and graduate students to engage in communityfocused service projects emphasizing sustainability. The satellite campus, now based at the Fork in the Road Station in St. John, U.S. Virgin Islands, was established in 2010. The guiding vision of the ISU EARTH Program is to educate Iowa State University students as tomorrow's leaders and innovative problem-solvers and assist U.S. Virgin Island communities in improving lives and sustaining the environment. The mission of the ISU EARTH Program is to educate Iowa State University students and the U.S. Virgin Island students and communities about topics of agriculture, food, natural resources, and the environment while creating inspiring educational programs and demonstration plots that benefit the U.S.

Virgin Islands, Iowa, and the world.



Dana and Martha Robes

 Since 2010, the ISU EARTH Program has hosted over 70 service-learning interns from ISU and the University of the Virgin Islands (UVI). Through the ISU EARTH Program, ISU students travel to St. John in the summer, spring, or fall semesters to live, work, and serve local communities. ISU students are actively involved with education, horticulture, agriculture, food, natural resources,

and environmental projects in the community and incorporate their various backgrounds to communicate and contribute to resource systems practices. Students gain an understanding of multiple resource constraints with various impacts on an island, education, sustainability of human and ecosystem interactions, and the contributions of U.S. Virgin Islanders to the culture of the United States. What began as a partnership with Gifft Hill School (GHS), a K-12 school on St. John, has grown as the ISU EARTH Program has cultivated relationships with more than ten partners and organizations in the community. In addition, six graduate students were or currently are engaged in the program with their research topics to benefit the U.S. Virgin Islands, focusing on food safety and erosion and sediment control. ISU students and faculty, in collaboration with local partners, are presently involved in expanding and growing research and outreach opportunities on St. John and have been working with the local community and the national park service to address the new needs of the island

community following two category 5 hurricanes.

Dr. Gail Nonnecke, ISU Horticulture, led the establishment of the ISU EARTH program in St. John, Virgin Islands

EARTH SERVICE-LEARNING PROGRAM IN THE U.S. VIRGIN ISLANDS



ISU students tend to vegetable gardens



GHS students create nutritious lunches in the GHS commercial kitchen



ISU student grows leafy greens in garden



ISU student helps grow citrus trees at GHS



ISU student shows success of her vermiculture project



Dr. David Minner (ISU) teaches GHS students about growing vegetables



ISU students and GHS students sample the school garden produce

THE FORK IN THE ROAD STATION, U.S. VIRGIN ISLANDS



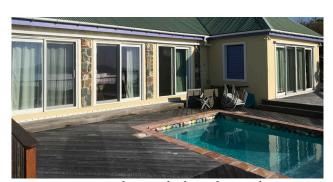
Outside view of student dormitory



Sunset apartment bedroom



Sunset Pointe house kitchen area



Sunset Pointe house deck and outside space



Sunset Pointe house living and meeting space



Benefactors Martha and Dana Robes with ISU students at the Fork in the Road Station, St. John, Virgin Islands

College of Agriculture and Life Sciences Study Abroad

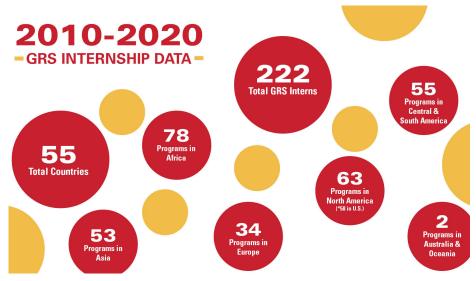
Students taking a study abroad course in the College of Agriculture and Life Sciences earn a passport stamped with experience. Since the first international "ag travel course" to Europe in 1964, the ISU CALS Study Abroad Program has grown to be a national leader in study abroad programs in quantity and quality to enhance student's ability to work and live successfully in a global society. In the mid-1990s, CALS made a strategic decision to elevate the importance of student global experiences, resulting in the creation of the CALS Study Abroad Office (est. 1999).

In the early 1990s, the College also established a secondary major/minor in international agriculture for students to formalize their global curriculum requiring globally focused course work and encouraging study abroad. Since its establishment, over 300 CALS undergraduates have graduated with a secondary major or minor in international agriculture.



First International Ag Travel Course for a month-long trip to Europe in 1964

In 2009, the College added the multi-disciplinary Global Resource Systems (GRS) secondary major to its offerings. Partnered with any other major in the College, GRS students study agriculture and life sciences in the context of a geographical region of the world or a global theme. Students in this major are required to gain fluency in a second language, complete an international internship facilitated by the CALS Study Abroad Office, and participate in and complete a senior research project. Since 2010, 222 students have graduated with a degree in GRS.



- Faculty support: The CALS Study Abroad Office also provides support to faculty who develop and
 integrate global perspectives into their curricula on the ISU campus as well as facilitating ISU faculty
 and staff to teach their courses abroad.
- Student support: The office provides support to CALS students by advising and guiding them in the pre-trip and post-trip phases of their international travel and provides scholarship funding to help students pay for international travel and establishes partnerships with universities and other institutions abroad. The office also provides students with a wide range of study abroad options. Building on the "ag travel course" model that was successful for many decades, CALS invested heavily in academic courses with an international field component.

Travel courses: Travel courses elevate the global expertise of CALS faculty and vary in topic, location, time, and cost, creating diverse programs that meet students' varied needs. Faculty in the majority of academic departments in the College have led travel courses ensuring that global engagement for students is a college-wide effort, with the College offering up to 18 travel courses each academic year. Travel courses cover a wide range of critical topics in global food and agriculture and have allowed for student travel to all 7 continents. In the decades following, travel courses have remained an important part of the study abroad portfolio and a popular option for students, many of whom participate in multiple programs throughout their academic careers.



Costa Rica travel course to melon farm

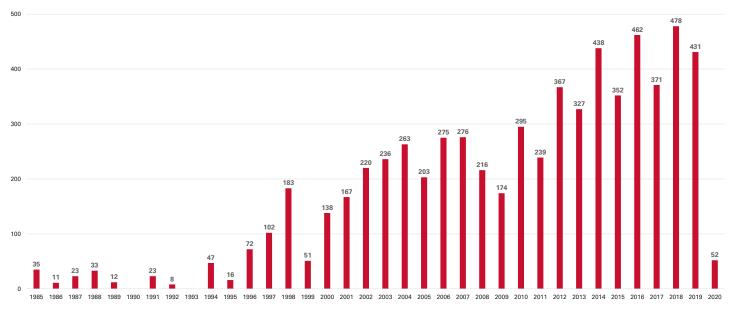
Exchange or semester abroad: Students can also
 choose to spend a semester or academic year at a partner university, study for a semester at
 one of the College's satellite campuses, or earn academic credit through independent abroad
 experiences, including research, internships, and service learning.

The growth of CALS study abroad has been impressive, increasing the number of students participating in a study abroad experience five-fold. An estimated 615 students traveled to 47 countries from 1986-1999: 2,100 students to 47 countries from 2000-2008: and 3,990 students to 55 countries from 2009 through 2020.

Between the 2015/16 academic year and when Covid-19 brought international travel to an abrupt halt in the spring of 2020, 21% to 25% of each graduating class of CALS undergraduates had participated in an international experience while at lowa State. To serve the students remaining on the ISU campus, the CALS Study Abroad Office supports faculty in their efforts to bring global themes into the classroom, organizes opportunities for CALS students to interact with international faculty, students and staff and organizes activities between returned study abroad students and students who have not studied abroad, meeting one of the College's strategic goals of graduating global citizens.

COVID-19 brought study abroad programs in 2020 to an abrupt end for the rest of the calendar year and the 2020/21 academic year. Long-term, trusted international partners and experienced program directors allowed us to cautiously resume programs during the fall, 2022 term.

College of Agriculture and Life Sciences Study Abroad Data (1985-2020)



*Data based on College of Agriculture and Life Sciences Study Abroad office database records. Missing data for 1990 and 1993 years.

PICTURES OF THE COLLEGE OF AGRICULTURE AND LIFE SCIENCES STUDY ABROAD TRAVEL COURSES



Ag travel course (AGRON & AN SCI)



Natural History of Antarctica (NREM)



Exploring The Agri-Culture Of Belize (AG ED)



Summer swine genetics internship at American Farm School, Greece



Culture and Economic Diversification, UAE (ECON)



Caribbean Marine Biology, Honduras (BIO)



Soils, Crops and Water of Costa Rica (AGRON)



Experiential study of international nutrition (FSHN)



Dean's Global Ag & Food Leadership Program, Rome (GRS)



Heritage Livestock, United Kingdom (AN SCI)



Agriculture and Rural Development in Ireland(SOC)



Graduate student research at Tashkent Institute, Uzbekistan

Summary

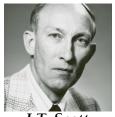
The partnerships presented in this report, along with all the College's global engagement, are forged in countries around the world. One way the College meets its mission is through engagement, education, research, and information sharing in developing countries. Some of this work is conducted primarily with institutional partners in academia and government. But faculty, staff and students also experience first-hand the profound challenges faced by many rural communities. Guided by education, research and information sharing, they can work collaboratively on potential solutions. Much of the college's recent experience in developing countries, especially in Africa, is grounded in collaborative work for the benefit of small farmers and with particular attention given to women producers. The College works with communities on goals that may include achieving food security, improved nutrition for women and children, sustainable incomes for their families, access to clean water and sanitary conditions, improved environmental conditions and effective agricultural use of available water resources. We work to build education capacity and improve educational opportunities for children, with a special emphasis on agriculture.

lowa State University of Science and Technology is committed to excellence, integrity, the free exchange of ideas and collaboration. It is imperative that the creation, sharing and application of knowledge be a global effort characterized by a profound respect for the diversity of people and ideas. The mission of lowa State University's College of Agriculture and Life Sciences (CALS) is to educate future leaders, conduct mission-oriented basic and applied research and share new knowledge for the betterment of lowa and the world. We embrace our role in addressing challenges in global food security, food safety, climate change, environmentally sustainable stewardship, renewable energy, and human health. Our students must be well-prepared to become effective global citizens as employees, employers, public leaders, stakeholders, philanthropists, and other roles that contribute to a global approach. Crosscultural partnerships are critical for globally mobile faculty, staff, and students — and graduates and alumni.

GUIDELINES FOR ENGAGEMENT IN DEVELOPING COUNTRIES

Guidelines for engagement in developing countries have been developed to help inform decisions in the college on engagement in developing countries. They also aim to help CALS faculty, staff and students better understand the challenges involved with engagement. The guidelines are applicable regardless of country, partners and funding sources. CALS expects the results of its work to be an expression of its mission, values and principles, just as it expects the results of its science, education and extension and outreach to contribute to positive change that improves lives. The process of developing the guidelines included an extensive literature review; review of guidelines from other organizations; input received by participants at a November 2012 seminar on Guiding Principles in International Agricultural Development: The Sustainable Rural Livelihoods Model; and a review of a draft by faculty.

DIRECTORS OF CALS INTERNATIONAL AGRICULTURE/ GLOBAL PROGRAMS



J.T. Scott 1973-1986



Harold Crawford 1987-1995



David Acker 1995-2005



Denise Bjelland 2005-2019



Shelley Taylor 2020-current

Resources

- Center for Sustainable Rural Livelihoods: www.csrl.cals.iastate.edu
- College of Agriculture and Life Sciences Global Programs: www.global.ag.iastate.edu
- College of Agriculture and Life Sciences Study Abroad: www.agstudyabroad.iastate.edu
- Guidelines for Engagement in Developing Countries (Global Programs): www.cals.iastate.edu/ content/guidelines-engagement-developing- countries#guidelines
- ISU EARTH Program: www.globe.iastate.edu/about-the-earth-program

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