



Your Passion, Their Transformation

Center for Sustainable Rural Livelihoods

2015 DONOR IMPACT REPORT

IOWA STATE UNIVERSITY
College of Agriculture and Life Sciences

Dean's Message

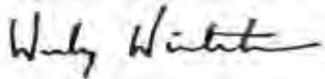
Over the past year, our growing program in Uganda has made significant and promising transitions.

Our official nonprofit status in the country, which was first established in November 2013, has been renewed for another three years. We have begun hiring a number of highly skilled Ugandan staff members to work full time on-the-ground in the Kamuli District. Every day they demonstrate their leadership in the communities where the programs of the Center for Sustainable Rural Livelihoods are at work. Achieving our shared goals with these communities wouldn't be possible without their energy, creativity and commitment. Their positive influence is creating positive change.

These committed on-the-ground staff members work in close coordination with our faculty and staff member leaders. It is a team that works well together to make progress in nutrition, agriculture, health and education. Our team's commitment and talents instill confidence in all of us that we can make a difference in hunger and poverty — and we are making a difference.

You, too, are part of our team — our donors and supporters whose generosity is helping to transform the lives of thousands in the Kamuli District. Thank you for all you do. Your positive influence, too, is creating positive change.

Sincerely,



Wendy Wintersteen
Endowed Dean
College of Agriculture and Life Sciences
Iowa State University

IN KAMULI DISTRICT, UGANDA, residents are enjoying a significantly higher quality of life than they did a decade ago. Children are healthier and better educated. Older youth are becoming entrepreneurs and leaders in their communities. And men and women are supporting themselves and their families through increased crop production, livestock management and other income-generating activities. **Each of these substantial gains has been realized through your generous support of the Iowa State University Center for Sustainable Rural Livelihoods.**

Since 2003, the center has worked side by side with Kamuli District residents to help them meet their most urgent needs: improved health and nutrition, food security and income stability. Over the years, the strategies for addressing these needs have evolved with changing circumstances. The result is a diverse range of programming that touches most stages of the lifecycle. Unifying this diversity is the principle of sustainability: Every program is envisioned with an eye toward the future vitality of rural Uganda.

As you read the inspiring stories that follow — about the center's programs, accomplishments and the people who benefit from them — know that **you've made every achievement possible.**



2015 QUICK FACTS

FOUR NEW BOREHOLES

A NEW
NEC*



MORE THAN
1,000 CLIENTS
SERVED BY EIGHT NECS

5,200  SCHOOL LUNCHES SERVED EACH WEEK

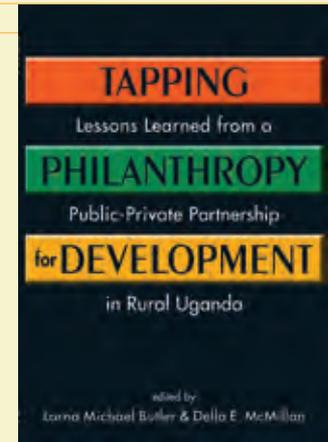
SERVICE LEARNING
STUDENTS 37

149 ENROLLED IN YOUTH
ENTREPRENEURSHIP

*NEC = NUTRITION EDUCATION CENTER

TAPPING PHILANTHROPY

“The year 2015 marked the release of an important new book, *Tapping Philanthropy for Development: Lessons Learned from a Public-Private Partnership in Rural Uganda*, written by 12



Iowa State and Ugandan authors and edited by Lorna Michael Butler and Della McMillan. It is a wonderful resource for other universities and institutions working in international development to learn how the Center for Sustainable Rural Livelihoods forged a productive partnership with donors to meet the shared goals of the people of the Kamuli District. The center’s programs now are a model for the rest of the world — the lessons learned are well-illustrated in the book. As stated in the book, CSRL’s goal is to redefine the word ‘philanthropy’ by taking it back to its more classical meaning — love for humanity, benevolence toward the whole human family, universal goodwill and the desire and readiness to do good to everyone.”

— Wendy Wintersteen, Endowed Dean
College of Agriculture and Life Sciences
Iowa State University



A Promising Start: Promoting the Well-Being of Infants and Children

SUSTAINABLE DEVELOPMENT LARGELY DEPENDS ON THE WELL-BEING OF CHILDREN. THEIR HEALTH, EDUCATION AND RELATIONSHIPS DETERMINE THEIR FUTURE CAPACITIES TO BECOME CONTRIBUTING ADULTS AND TOMORROW'S LEADERS. **BECAUSE OF YOUR COMMITMENT** TO IMPROVING THE LIVES OF UGANDAN CHILDREN, THE CENTER FOR SUSTAINABLE RURAL LIVELIHOODS IS ABLE TO WORK CLOSELY WITH CHILDREN OF ALL AGES — THROUGH NUTRITION EDUCATION CENTERS AND LOCAL SCHOOLS — TO ENSURE THEIR CHANCES FOR A BRIGHTER FUTURE.



DOROTHY BAZIBA



MINSI

NUTRITION EDUCATION CENTERS

When Dorothy Baziba brought her youngest child, Minsi, to Namasagali Nutrition Education Center (NEC) four years ago, she did so unwillingly.

“I didn’t believe my sick child could be cured with food,” she says.

Baziba had been referred to the NEC weeks earlier by the local hospital, where doctors had diagnosed Minsi with severe malnutrition. But her skepticism kept her away. It took several visits from Jane Sabbi, trainer for the NEC, and Baziba’s increasing desperation before she conceded.

Baziba was mostly alone in providing for her six children. With only a small garden and the little she earned working for other farmers, she and her children ate once a day and sometimes went begging for food.

“I reached the point of despair. I was even planning to leave,” says Baziba, a life-long resident of Kamuli District.

Saving Lives

Baziba’s story is not unusual. It is the high prevalence of malnutrition seen throughout Kamuli District that inspired the creation of the NECs. They aim to ensure the proper nutrition of children from birth to age five and of pregnant and breastfeeding women. Starting with one in 2011, the center has since established eight NEC locations to meet the growing demand for its services. In addition to providing nutrition and related education, NECs partner with local health clinics to provide immunizations, HIV testing and other health services.

This year, the NECs served more than 1,000 women, children and infants.

When Baziba and Minsi came to the NEC, Minsi was a year old and weighed 7 pounds — less than the average American newborn. Within 10 weeks of beginning the center’s protocol (three servings daily of nutrient-dense porridge), Minsi gained 6 pounds and could sit up. Soon after, he started walking.

Motivated by her son’s recovery, Baziba became the first person to arrive at the NEC every day. She learned how to make the porridge and eagerly participated in required trainings on nutrition, hygiene, sanitation and agriculture. Soon she began mentoring other mothers at the center and sharing her knowledge with women throughout her community.

Sustaining Gains

Like all NEC graduates, Baziba was given seeds of millet, amaranth, maize and soy to plant at home to sustain the family’s nutrition. The seeds enabled Baziba to expand her small garden to an acre.

“By implementing what I learned at the NEC, I was able to feed my children nutritious meals and take better care of them,” says Baziba.

Baziba’s personal success and enthusiasm for the program eventually landed her a training position, and she is currently a trainer at Bugeywa NEC. She’s used her earnings from her job and her expanded garden to rent another acre of land, raise livestock and pay school fees and medical bills.

“The NEC has raised me up. Some people in my community saw me as a beggar. Now they call me ‘Bei Nene’ (Big Budget),” says Baziba.

RAISING POULTRY

In summer 2014, the center launched a microfinance program that enables qualified NEC graduates to acquire laying hens. The benefits to women include increased income, the addition of animal protein to their families’ diets and a growing sense of community as they exchange ideas about poultry management. See pages 8 and 9 for more information.

NURTURING PROGRESS

Years ago, the center related the story of 2-year-old Daudi Mpoya, one of the first NEC clients. At the time, Mpoya was severely malnourished, swollen all over and had wounds on his lips and head. The hospital couldn’t help him. His father, William Mpoya, had “*left it to God*” to determine his fate.

Today Daudi is a healthy, happy second-grader who is earning excellent grades at a school in Kampala. His father is an NEC trainer. As the only male trainer, husbands of the NEC clients often confide in him. The regular income William receives from the NEC, combined with agricultural and livestock production, has enabled him to start a small shop for his wife. Each month, they divide their income among improving the shop, expanding their farm, paying school fees and improving their home.

“I want Daudi to get out of ignorance. I sent him to a school where he can work hard and become a doctor,” says William.

ELEMENTARY EDUCATION

Throughout the world, schools play a central role in strengthening communities and promoting the common good. That's why, since its beginning, the center has devoted resources to developing partnerships with local schools. Through the education of children and the promotion of schools as community resources, the center is able to extend training in agriculture, nutrition, hygiene and sanitation to the entire community.

Today the center's school-based programs reach more than 2,700 pupils at four primary schools. Namasagali Primary School, the first to collaborate with the center, is featured on this and the next few pages. Since working with the center, the school has gained a reputation as a shining example to which other schools aspire and communities aim to replicate.

"The benefits that have resulted from our relationship with the center shall forever be remarkable in the history of Namasagali Primary School and Uganda," says Augustus Wabwire Baboola, a teacher.

School Gardens

"At first I did not understand how the children would benefit from school gardening. I now see it is imparting knowledge and life skills to the children and the greater community. My daughter grows her own eggplants, and this helps save us money," says Marriam Namagembe, a parent.

The school gardens have motivated many children to raise and sell their own crops.

"The school garden has changed my outlook on agriculture," says Eflance Kirikumwino. "At home I have a small garden of eggplants. Some we eat and others my mom sells in her shop. In the future, I would love to study agriculture at the university."

After school, children participate in the Agriculture Club. While working in the garden, they learn advanced agricultural skills, including marketing

crops. The income generated from crop sales provides uniforms and supplies to the school's most vulnerable students.

"The kids worked so hard and are so strong. They were tireless — and you knew they weren't eating enough," says service learner Rylee McDermott, an Iowa State junior majoring in global resource systems and nutritional science.

Poultry

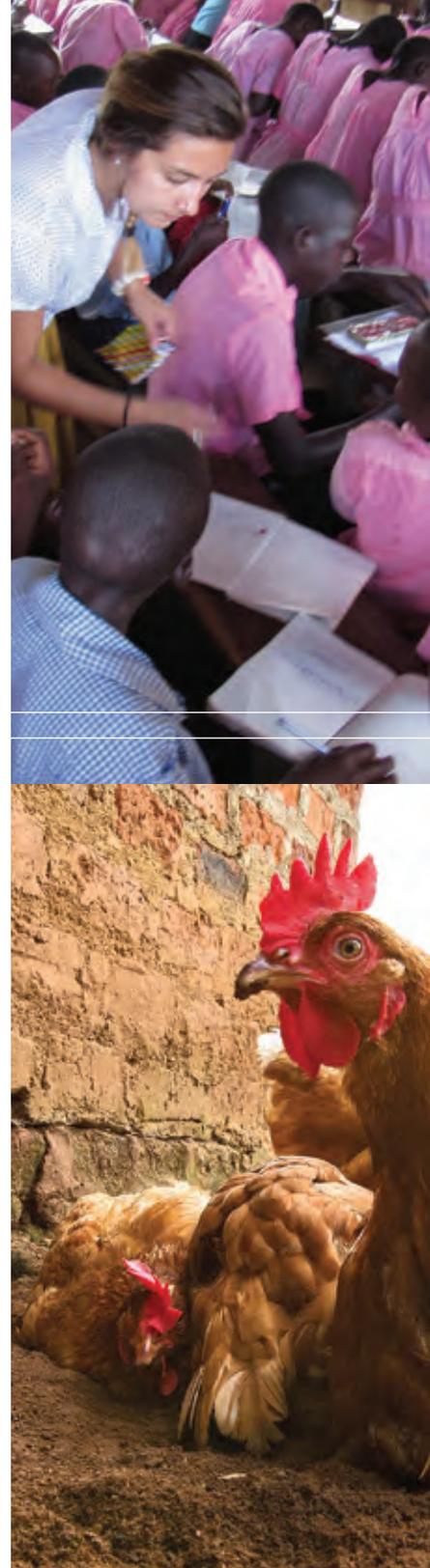
The poultry program trains pupils on best practices in poultry management and marketing. They learn about poultry as an income generator and transfer the knowledge to their families. The program also attracts community members interested in learning these valuable skills.

"As parents, we are learning from our children. We've been impressed with the techniques taught in livestock rearing. Our children advise us on vaccination, signs of disease and have told us to buy waterers so the birds have clean water," say parents Irene Kasubo and Alex Lubaale.

"Pupils are more practical as they transfer both theory and practical knowledge to the areas of production. Positive results have been realized both at the school and their homes," says Simon Mukaya, a teacher.

Adding even more value to the program, the eggs produced by the layers supplement school lunches at Namasagali school twice a week. The lunch program is partially credited for increasing school enrollment.

This year, the school received a second batch of chicks that will replace the current layers slated to be sold. At Nakanyonyi Primary School, pupils, staff and parents are building a poultry house in anticipation of starting a program next year.





School Lunch

Thanks to the success of its school garden and poultry programs, as well as the continued commitment by parents to supply grain, Namasagali school has served lunch five days a week for two years. *Nyoyo*, an 850-calorie, nutrient-dense stew, includes a variety of vegetables, high-protein grains, oil and salt. It is often a child's only meal for the day.

"The school lunch program has made a big difference in my life. I get a balanced diet and I feel stronger. I can study from morning to evening," says Eflance Kirikumwino, a pupil.

"It has saved me from hunger while at school," adds another pupil, Moses Kabirifu.

Since its inception, the school lunch program has been linked to positive student learning outcomes.

"The school lunch program has led to increases in school enrollment and student performance. Pupils concentrate on

their studies because they know lunch will be provided at the school," says Mukaya Simon, a teacher.

At Nakanyonyi Primary School, this is playing out through noticeably higher attendance on the days *nyoyo* is regularly served. Eventually the program hopes to offer lunch every school day.

Among the three primary schools, the lunch program serves upwards of 5,200 meals to more than 2,000 pupils each week.

"Seeing the impact of the school lunch program was powerful. I noticed a difference in the physical development of kids eating lunch five days a week compared to those eating lunch less frequently," says service learner Elise Kendall, an Iowa State senior majoring in global resource systems.

Facilities

Over the years, the center has worked with school staff, parents and pupils to build new kitchens, boreholes, improved latrines, hand-washing stations, teachers' housing and other improvements that benefit children, and by extension, the larger community.

The most recent improvement, the girls' dormitory completed at Namasagali school last year, is already filled to capacity. More than 50 girls now have the opportunity to focus on their studies rather than being consumed by household chores. Ultimately, these girls are more likely to stay in school and achieve a higher quality of life.

At Nakanyonyi school, construction started on a new kitchen in 2015. The expanded facility will enhance the school's ability to improve its lunch program.

During the past year the center initiated a planning process for the establishment of a training center to help better serve the communities where the center works. The center currently is fundraising for this project and conducting preliminary planning studies in hopes of launching a construction phase in 2016.

Teaching

Working with Kamuli District youth in classrooms and in the gardens, students from Iowa State and Makerere University serve as educators, role models and influencers.

"Having Iowa State and Makerere students in the classroom encourages children to study hard in order to continue to university. It also motivates them to learn English as they try to communicate with the program's service learners," says Augustus Wawire Baboola, a teacher.

"Our presence reinforces the value of sticking with school. That if the kids finish school, they can be like us — helping others and inspiring communities," says service learner Mark Rippke, an Iowa State senior majoring in horticulture.

University students teach a range of subjects — from math and science to hygiene and sanitation. And while they impart new knowledge to their charges, they take away meaningful life lessons.

"We got to know the kids personally. They worked incredibly hard and were still playful, inquisitive and engaging. You would never know that every day is a fight for them — that their living circumstances are extreme," says Rippke. "That will stay with me the rest of my life."



"The most common thing among the schools is their limited resources. The government provides the teachers' salaries, but the parents provide everything else — including handmade bricks for school buildings. It is humbling to see the effort the parents make to contribute when they have so little themselves."

— Gail Nonnecke, Iowa State Morrill Professor of horticulture and Global Professor in Global Resource Systems





LIVESTOCK

While most farmers in developing countries grow crops, raising livestock is what really moves the needle toward food security, poverty alleviation and farmer resilience.

“If a woman farmer just raises corn, she is in serious trouble when there is a drought. But if she has livestock, she can use it to pay for food, medicine and other necessities. Livestock is like an agricultural bank,” says Max Rothschild, Iowa State Distinguished Professor in Agriculture and M.E. Ensminger International Chair.

Livestock also improves nutrition. Animal-sourced foods provide essential protein, amino acids and other nutrients that are essential to health but are missing from most Ugandan’s diets. Livestock also supplies manure and draft power for crop production.

Gaining Ground

Starting in 2004, the center has introduced a variety of livestock to Kamuli District including goats, pigs and poultry. Farmer-to-farmer outreach programs have trained almost 500 farmers in animal husbandry, disease management and other livestock management skills. And for the past few years, Uganda-based Dr. Gideon Nadiope, a veterinarian, livestock specialist and field operations manager for the center, has worked side-by-side with farmers to advance livestock production despite the region’s challenges.

“There are limited amounts of water and quality feed. Everything depends on that,” says Rothschild.

For instance: A cow capable of producing many liters of milk per day will only produce two liters if that’s what her food and water intake equate to. That’s why it’s essential, says Rothschild, to help farmers better feed and water the animals.

Weathering these and other obstacles to production, an increasing number of Kamuli District farmers have realized success. Rose Namuyomba, for example, has been a pig farmer since 2005. The single mother of nine children, Namuyomba has marketed pigs, boosting her income and allowing her to expand her operation. Today she has more than 50 pigs and 20 chickens. She has built a kitchen, purchased iron sheets for the roof of her house and is able to meet household expenses. Namuyomba plans to expand her chicken flock to 200.

Expanding Poultry Production

The newest venture in livestock is the poultry microfinance project established in conjunction with the Nutrition Education Centers (NEC) in 2014. The goals of the program are to increase household income and children’s intake of animal protein.

Here’s how it works: Select graduates of the NEC program receive small loans to purchase layers. Prior to receiving the layers, the women are trained in poultry management and are required to construct a poultry house. When they receive the layers, the center works closely with the women to ensure their success.



“I visited the women every day and spent two hours at each household. I asked questions, such as, ‘How often do they clean and water the birds? What do they do if the birds are sick?’ Some need more guidance than others,” says service learner Celize Christy, an Iowa State senior majoring in animal science and global resource systems.

Eggs produced by the layers are sold to pay off the loans, provide income to the women and purchase layers for the next group of farmers. To date, there are three groups of farmers, each at different stages in the layer life cycle. While the third group just received their birds, the first two groups have produced more than 31,000 eggs for market.



EGGS DRIVE SUCCESS

Suzan Mpata, 32, with seven children, was one of the first NEC poultry program participants. She received 76 birds in August 2014 and has earned income from the sale of eggs. Mpata used the income to pay school fees for her children and then bought meat, a scarce commodity for her family. In the future, Mpata plans to expand her poultry operation and make improvements to her house.

CREATING NEW PARTNERSHIPS

This year, three faculty members from Iowa State's animal science department traveled to Uganda for the first time:

Donald Beermann, professor and chair of the Department of Animal Science; Curtis Youngs, professor of animal science; and Jason Ross, associate professor of animal science. The purpose was to identify ways they could contribute their expertise to promoting livestock production.

"We have a strong desire for expanding the program, and the opportunities are definitely there," says Beermann.

After a whirlwind tour of 13 farms and other key sites, the professors identified several areas for potential collaboration including biosecurity, livestock nutrition and reproduction management.



BOREHOLES

Mikeli Ilumba, a 56-year-old farmer and life-long resident of Kamuli District, has experienced first-hand the transformational power of clean water.

Before the center provided his village with a borehole three years ago, Ilumba and his family spent every other day gathering water from far-away swamps, dams and the Nile River. Despite this concerted effort, the family sometimes came home empty-handed — the water source had dried out due to so many people using it that day. Often the water they did collect was yellow and had a bad taste and odor. At other times they resorted to pounding banana stems to extract their water.

A Better Life Through Water

For the Ilumba family, 2012 was a year to remember. The new borehole gave them convenient access to clean water. They could bathe, wash clothing and drink water whenever they wanted. They used water collected in the accompanying cistern for livestock, irrigation and brick-making. Ilumba reallocated the time spent collecting water to elevating his family's living status.

Once living in a mud pole house and keeping four cattle and a small garden, the Ilumbas now live in a renovated brick home and own 13 cows, four pigs, 25 birds and seven beehives. They've established nursery beds for coffee beans and grow bananas, ginger and passion fruit. And the children have more time for school.

But Ilumba didn't stop there. He also organized a village savings and loan association using the village borehole account and a community-owned passion fruit garden. The fruit is sold at market and the income is deposited into the account. Villagers can borrow from the account at 10 percent interest.

Extending Water's Reach

The Ilumba family is one of more than 5,000

households, and more than 3,400 students, that have access to clean water every day. The center has installed 18 boreholes throughout the region, four of them in 2015. The boreholes constructed this year bring water to more than 400 additional households and will soon be complemented by cisterns.

"The borehole has resolved the water shortage in our community. It has also reduced fatal accidents. Children used to drown when fetching water from the river," say Alex Lubaale and Irene Kasubo, farmers.

Also implemented in 2015 were multiple projects at Namasagali Primary School and a district-wide, data collection project on water usage and quality led by Melissa Larson, an Iowa State senior majoring in global resource systems and environmental science.

Larson spent several weeks surveying members of local communities, interviewing water use committees and observing borehole usage. She also investigated the safe water supply chain, created a GPS map of the boreholes and tested the water for pH levels, mineral content and evidence of disease-carrying bacteria.

The data are being analyzed, but Larson says it's already clear, "People were grateful for not having to spend so much of their lives collecting and boiling water."

She also discovered that the water usage committees carry a lot of authority. Residents elect members of the committees and empower them to act on their behalf.

"The project is about due diligence — proving that what we are doing with the boreholes is good water management practice," says Tom Brumm, Iowa State professor of agricultural and biosystems engineering and Mary and Charles Sukup Global Professor in Food Security.



WATERING JUST GOT EASIER

At Namasagali Primary School, a water tank for washing dishes, a drainage system that removes standing water from underneath tip-taps (hand-washing stations) and a water catchment system that collects rainwater off the roof of the girls' dormitory for irrigation have been installed.

At Namasagali school, service learning students made it easier to sustain the gardens year-round by installing three pieces of irrigation infrastructure:

- **SPRINKLER SYSTEM RUN BY A TREADLE PUMP**
- **MOBILE DRIP IRRIGATION SYSTEM USED FOR NURSERY BEDS**
- **UNDERGROUND CISTERN**

The 10,000-liter cistern, dug in the middle of the garden, will decrease the amount of time pupils spend transporting water from the borehole.

"The kids work incredibly hard regardless of the amount of food or sleep they've had. This is one way we can save them labor and give them more time in class," says service learner Mark Rippe, an Iowa State senior majoring in horticulture.

CROPS

Food security is about more than having enough to eat. The nutritional value of food also is highly important. In Kamuli District, families face challenges on both fronts.

The region's long dry season, poor soil conditions and inefficient farming practices lead to low crop yields. And the traditional staple crops of maize, sweet potatoes and bananas supply a diet high in starch but low in vitamins and nutrients — a diet linked to malnutrition.

“Over 90 percent of people's livelihood in Kamuli District depends on land. Under cultivation for many years, the land has been depleted of nutrients and cannot yield as it used to. Also, the land has been fragmented and farmers cultivate without supplements such as fertilizer. These conditions create a high risk for low productivity,” says Moureen Mbeiza, agronomy and land use officer for the center.

Moving the Needle Toward Food Security

To help farmers overcome these and other challenges, the center leverages the resources of Iowa State University, a national leader in agricultural education. Partnering with Ugandan farmers, faculty help derive effective, culturally sensitive solutions to low productivity. They also educate farmers on the benefits of high-protein crops and share best practices in harvesting, grain storage and marketing.

Practicing what they've learned, farmers throughout the region have made tremendous gains. They've diversified their families' diets and have increased yields so they have leftover crops to sell. The new income stream pays for things they couldn't afford before: school fees, medical care, salt and other necessities. Essentially, the farmers have raised the nutritional status and income security of their families and their communities.

Deceptive Beauty

Threatening these gains, however, is a pretty pink flower.

Striga, a beauty to behold, is a parasitic weed capable of destroying 100 percent of a farmer's crop by sucking the nutrients from the roots. The weed is especially toxic to maize, a Kamuli District staple, and it has been spreading rampantly in recent years.

Danielle Hickman, an Iowa State senior majoring in global resource systems, studied the problem this past summer. First, she surveyed about 200 farmers to determine the severity of the outbreak and what they are doing about it. She then addressed farmers' concerns in two training sessions on striga management. Meanwhile, the center plans to investigate more effective ways to mitigate the spread of striga.

“We need to figure out how to control striga or the gains we've made over the last decade will be wasted,” says Dorothy Masinde, associate director for the center.





MEET MOUREEN MBEIZA, AGRONOMY AND LAND USE OFFICER

In 2015, the center completed its first full year as Iowa State's new nongovernmental organization (NGO), Iowa State University – Uganda Program (ISU-UP). The NGO enables the center to manage projects more directly through the hiring of full-time staff based in Uganda year-round. Inherent in the new structure is the agility to quickly respond to changing circumstances and meet the needs of Kamuli District residents.

Moureen Mbeiza, agronomy and land use officer, is one of the professionals fortifying the NGO's efforts and is well-versed in the center's programs.

Mbeiza was a service learning student in 2012 while studying agriculture and land management at Makerere University. In 2013, she returned as a student leader and completed an internship at Iowa State. The next year she returned to the center as a volunteer.

"Growing up on a farm, I developed a passion for agriculture," says Mbeiza. "I also love working in the community."

Overall, Mbeiza is responsible for identifying and disseminating innovations for improving crop quality and production. On a daily basis she works with farmers to help them understand their production

system and determine the best ways to plan, plant, control pests, harvest crops and cultivate land to optimize productivity. She also collects field data on soil conditions and crop yields.

"I live in the community where the program operates. This helps me understand how people from all corners of the community perceive the program," says Mbeiza.

When asked about her future plans, Mbeiza says she wants to continue working hard so that the program spreads to other sub-counties and throughout the country.





Connections for Success: Empowering Emerging Leaders

THROUGH YOUTH ENTREPRENEURSHIP AND SERVICE LEARNING PROGRAMS, UGANDAN AND AMERICAN YOUTH ARE LEARNING TO HELP THEMSELVES AND EACH OTHER. SOON THEY WILL BE RESPONSIBLE FOR ADVANCING FOOD SECURITY, INCOME STABILITY AND IMPROVED HEALTH. IT'S CRITICAL TO INSTILL IN THEM THE SKILLS AND ABILITIES THEY NEED TO BE SUCCESSFUL IN THEIR EFFORTS.



SIMON MPOOKO

YOUTH ENTREPRENEURSHIP PROGRAM

Kamuli District youth are embracing entrepreneurial training at a fever pitch. Enrollment in the center's Youth Entrepreneurship Program is almost four times greater than last year. Youth are recognizing entrepreneurship as a sound strategy for economic self-sufficiency. And they seek the benefits of entrepreneurial training: self-confidence, responsibility, leadership skills and other traits that will guide them toward becoming enterprising adults.

"I had a goal of being a good leader in the community in many ways and also to have employment. The program is helping me reach my goals," says David Waiswa.

The program started in 2013 with the goal of teaching Namasagali College (high school) students how to create and manage crop and poultry enterprises. Soon the program expanded to include out-of-school youth, giving the lives of these young people renewed purpose. The majority of participants are now out-of-school youth, and 75 percent are 25 and younger.

"The main objective is to develop entrepreneurial skills in the young people of the Kamuli District. Secondary objectives include promoting friendships and collaboration, strengthening their interest in agriculture and developing their skills as future community leaders," says Gail Nonnecke, Iowa State Morrill Professor of

horticulture and Global Professor in Global Resource Systems.

Opening Doors to New Opportunities

Program participants learn about poultry-keeping, crop production, budgeting, record-keeping and the principles of entrepreneurship. Those who demonstrate a high potential for success are chosen to receive poultry or vegetable garden input loans. These young entrepreneurs, like Simon Mpooko, repay their loans through the sale of eggs or crops.

When Mpooko enrolled in the program 18 months ago, he was an out-of-school youth who had just been taken in by his uncle after the death of his guardian grandparents. Mpooko was contributing to the family's income by selling handmade knives, machetes and household wares. But he knew he could do more.

After applying his exceptional work ethic to entrepreneurial training, Mpooko was one of six program participants chosen to receive poultry through the youth microfinance program. He devoted himself to constructing an intricate poultry house before he received about 70 chicks in July 2014. Like most farmers, Mpooko slept with the chicks to ensure their health and safety from predators.

Today, Mpooko's birds are healthy and he is repaying his loan through the sale of eggs. His microfinance cohorts are doing the same: Among the six

farmers, more than 7,900 eggs have been sold to pay down loan amounts.

Mpooko is often consulted by community members for his expertise in raising layers and marketing eggs. Inspired by his success and renewed vision for the future, Mpooko has returned to secondary school. He hopes to study agriculture in high school, continue to an agricultural college and someday become a veterinarian — all while expanding his current enterprise.

Developing Future Leaders

While technical skills are essential to entrepreneurial success, even more important is the ability to develop relationships and bring people together toward a common goal. With this in mind, the program created a Leadership Camp, an intensive session focused on developing critical leadership skills and promoting youth as leaders in their communities.

This year, 30 of the program's most active youth were selected to participate in the camp held at Namasagali College. Topics included the meaning of leadership, the principles of entrepreneurship, goal setting, and behavioral strategies for mitigating gender inequities. Two motivational speakers also participated.

"I am proud of what I have become in the community. I am the chairman of a youth farmers' group in Namakoba, and I am leading by example," says James Kazungu, a camp participant.

IN THEIR OWN WORDS

"Young leaders in the community are learning to be job creators rather than job seekers."

— Charles Kaberawo, Namasagali Primary School teacher

"I have been motivated to start up something for myself, and I am now able to support my mother and orphaned nephews."

— Paul Kakooza, a camp participant

"I have learned to keep working and not give up right away, that you can learn from small failures. I now know, that with time, I will achieve my dreams."

— Edward Edengo, a camp participant

SERVICE LEARNING

Completing its 10th year in 2015, the service learning program brings together a select group of students from Iowa State and Makerere University. The students live and work together for at least six weeks each summer while making a meaningful difference in the lives of Kamuli District residents. They teach primary school, cultivate and improve school gardens, care for poultry and form bi-national teams to complete projects focused on meeting residents' needs. University students also learn about local farming practices while providing assistance to farmers through volunteer work in a variety of crop and livestock activities.

"While it's called service learning, these are actually major development projects: improving sanitation and health, teaching pupils about agriculture and building infrastructure. To participate in development projects as students is significant and a unique opportunity," says Gail Nonnecke, Iowa State Morrill Professor of horticulture and Global Professor in Global Resource Systems.

"I liked that this wasn't a traditional internship. I got to serve the community. We worked side-by-side with local people and literally got our hands dirty," says Margaret Schildgen, an Iowa State senior majoring in biological systems engineering.

Meeting a Variety of Needs

Schildgen's bi-national project team implemented composting systems at two primary schools. Driven by large composting pits and a regular rotation schedule, the systems break down kitchen

waste, mango remnants and other organic materials into nutrients that can be added to garden soil. Over time, the nutrients should improve soil fertility and contribute to higher crop yields.

Other projects focused on hygiene and sanitation. Service learning students constructed drainage systems to rid the area beneath tip-taps (hand-washing stations) of standing water. They also built drying racks so lunch dishes can be dried off the ground, and they built several benches for children to sit on while eating lunch. The benches will help children maintain clean hands and a clean eating surface.

This year's group of 37 students also completed projects in beekeeping, irrigation, agroforestry and grain storage.

Changing Perspective

Beyond project work, service learners from Iowa State experienced complete immersion in the Ugandan culture. After working with Ugandans all day, they returned to shared living quarters where they developed cherished friendships with Makerere students.

"There was such an outpouring of love when we left," says Mark Rippke, an Iowa State senior majoring in horticulture. "It definitely brought the experience to another level."

Students unanimously describe the service learning experience as one that had an immeasurable affect on them.

"What affected me most deeply was being in the communities and seeing poverty and malnutrition up close. It is hard to come back here and live in excess and abundance," says Melissa Larson, an Iowa State senior majoring in global resources systems and environmental science.

Rylee McDermott, an Iowa State junior majoring in global resource systems and nutritional science, discovered that a girl in her sixth-grade class was living alone.

"Hearing the young girl's story was a reality check," says Elise Kendall, another service learning student and artist for this year's mural (see "Leaving Their Mark," page 17), "It made me rethink what I worry about."

Kendall joined McDermott in raising funds to support the girl through school. They later learned that a fund for this purpose was established in 2010. It's known as the "Ritah Fund," after the girl who inspired it.

"To be able to say, 'Yes we created change and we ourselves were changed,' that's how you know it was an impactful experience," says Rippke.



10TH ANNIVERSARY

Students, faculty and program alums came together to celebrate the 10th anniversary of the service learning program. Guests reminisced, made new friends and shared a bi-cultural meal. All program classes were represented from 2006 through 2015.



LEAVING THEIR MARK

While each service learning class leaves an indelible mark on the lives of Ugandans, they also leave a tangible mark on the center compound: a mural. This year's mural, painted by Elise Kendall, featured two hands, one black and one white, holding the world. A poignant quote captures the essence of the center's work:

"We all have two hands: One for helping yourself and one for helping others."

— Audrey Hepburn, goodwill ambassador for the United Nations Children's Fund



