

A PERIODIC NEWSLETTER OF THE CENTER FOR INTERNATIONAL RESEARCH, EDUCATION, AND DEVELOPMENT



Students at the African Drone and Data Academy in Lilongwe, Malawi, showcase their drones. Read more about the ADDA graduation on page 3. Photo by Shittu Dhikrullah.

From the Executive Director

We are pleased to share this new edition of CIREDCONNECT. In this edition, we focus on how COVID-19 is impacting CIREDCONNECT's projects and activities around the world and how we are responding. The pandemic is having profound and devastating impacts on our partners and our project staff. Yet, amid the turmoil and uncertainty, they are dedicated to meeting the immense needs of the people and communities they serve.

We can't know with any certainty when the suffering and losses caused by COVID-19 will abate. What we do know, however, is that in the end, we will prevail as individuals, communities, and nations. In a time to come, as distant and unknowable as it is, we will have built a better and safer world for future generations. As Buckminster Fuller (architect, inventor, and futurist) said, "We are called to be the architects of the future, not its victims."

To all of our staff and faculty, our partners and colleagues, our friends and families, we salute you for your endeavors during this hard and challenging time. Be well and safe.



Warm regards,

Van Crowder

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IMPACT

4-H Clubs in Senegal make facemasks and sanitizers, help local communities during pandemic

When Senegal’s government put social distance measures in place, many professionals began working from home, start-up businesses halted their operations, and families lost income as a result of the spreading pandemic. Yet, for the USAID Youth in Agriculture project, these challenges provided an opportunity for youth to apply their positive development skills to helping their communities at a time when they need it the most.

Several 4-H clubs have collaborated to inform and protect citizens through fundraising, sewing masks, providing information to stop the spread of false rumors, and distributing sanitation goods throughout their communities.

According to the project’s National Director Bineta Guisse, “Feed the Future Senegal Youth in Agriculture’s

ongoing capacity building and trainings have helped prepare youth leaders, university partners, and other stakeholders to respond to emergency needs. Clubs have been working together to assist women, young children, and families as well as Islamic spaces called daaras.”

Club 4-H Guédiawaye has made over 200 facemasks and hydroalcoholic gels for distribution within their neighborhood of Baye Laye. Another local partner of Youth in Agriculture, African Leaders Factory Initiative (ALFI Learn), has started to raise funds for youth in the daaras. Babacar Diop, a certified 4-H leader and founder of ALFI Learn, is leading efforts to provide equal access to electricity through flexible rates during the pandemic.

EcoBuilder, another local partner, is a female-led organization that has access to over 1,800 people through WhatsApp. The organization’s leaders have facilitated two sessions with certified doctors to answer questions related to COVID-19. An upcoming session will focus on good nutrition and mental wellness. EcoBuilder also will be raising funds for food donations for vulnerable populations, such as children, senior citizens, and people with disabilities.

During the COVID pandemic, the Youth in Agriculture project will continue to raise awareness among community leaders and through social networks about the importance of adopting the safety measures recommended by health authorities.



Members of the 4-H Club Guédiawaye participate in an awareness campaign, providing masks to the Baye Laye Guédiawaye neighborhood community.



Youth in Agriculture local partner, African Leaders Factory Initiative (ALFI Learn) assists residents with low-cost, rural electrification options.

IMPACT

ADDA graduates first class on the cusp of global pandemic

Twenty-five African youth from nine countries made history on March 18, 2020. They became the first graduates of the African Drone and Data Academy (ADDA), thanks to a joint educational effort between Virginia Tech and UNICEF that provides students with drone, data, and entrepreneurship skills.

Yet, as a result of the COVID-19 pandemic the graduation was not the typical ceremony.

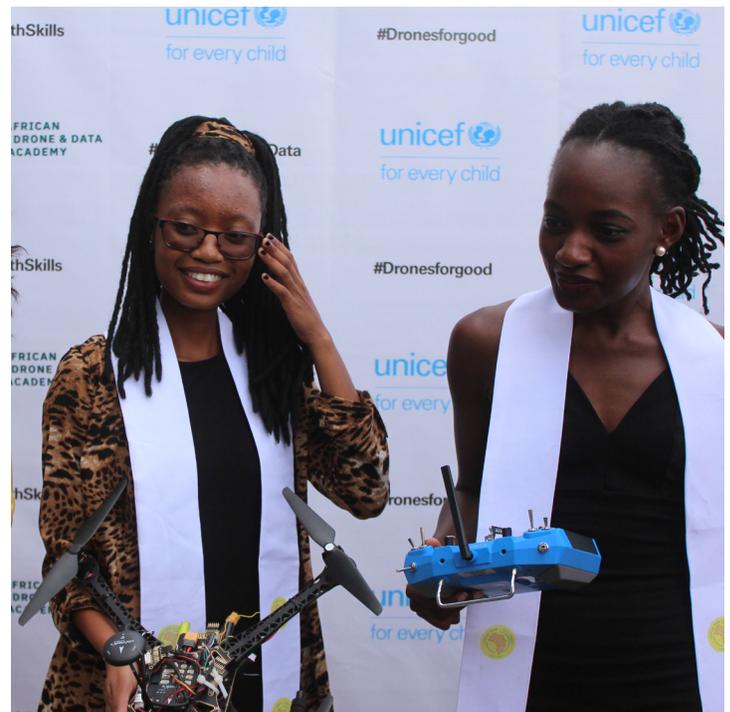
Brianna Friedman, a Virginia Tech master's student in mechanical engineering and instructor at the academy, was in Malawi at the time of the graduation. She said, "I didn't realize the extent of the virus until I talked to my parents back in the states. We started to realize that it would affect the student cohort."

More than 200 people were expected to attend the graduation, including graduates' families, local and international media, and representatives from UNICEF, Virginia Tech, and drone companies.

Friedman noted, "The graduation had to be scaled back. Parents could no longer attend, and most media livestreamed the ceremony." Representatives from many organizations could not attend due to travel restrictions, including other Virginia Tech representatives.

The graduation ceremony was modified as a result of the pandemic, according to Friedman. "We didn't shake hands. Instead of sitting in rows, all tables were circular to keep people further apart."

Friedman and local project manager Brian Kamamia joined UNICEF and Malawian governmental and educational partners in awarding certificates in drone technology to the students. Each student also received an international drone operator certificate as well as a Malawi "authority to fly," the equivalent to a remote pilot license until the government officially adopts its drone regulations.



Female graduates showcase a drone they built during the certificate program. More than half of the inaugural class included women with undergraduate degrees in science, technology, or engineering.

According to Kevin Kochersberger, associate professor of mechanical engineering who leads the project, "It is disappointing that we cannot roll into the next class to meet a goal of 98 graduates by the end of 2020, but UNICEF remains committed to the project and I'm hopeful we will meet the target by mid-2021."

He continued, "We are pleased that several graduates have already found jobs. Two graduates were hired to help improve courses and to support a drone business incubator. Other students have taken on new roles in positions in their respective countries."

Friedman left Malawi after the graduation as a result of the pandemic, but not before helping the team establish incubator space for companies and students to collaborate on innovative uses of drones such as flood mapping and disaster preparation. A team of five part-time employees is preparing for the next class of students and providing support for the incubator and flight operations.

Both Kochersberger and Friedman are members of TEAM Malawi, a group of Virginia Tech professors, students, and community partners from multiple disciplines that addresses community health and quality of life challenges in Malawi through technology, education, advocacy, and medicine (TEAM).

IMPACT

IPM Innovation Lab and iDE maintain, increase plant protection services during global pandemic

Amidst the COVID-19 pandemic, traveling or gathering in large groups has been prohibited, delaying many of the USAID IPM Innovation Lab's planned farmer trainings, field work, and laboratory experiments. Nevertheless, the IPM Innovation Lab is coordinating with their partners at iDE to use this time as an opportunity to adapt and improve the ways in which integrated pest management (IPM) information is communicated and delivered to farmers.

Feed the Future Nepal Integrated Pest Management (FTFNIPM) is the IPM Innovation Lab's newest project. The project prioritizes the transfer and adoption of IPM, as well as mitigating the spread of fall armyworm, a devastating invasive pest. To ensure that small-scale farmers do not lose valuable access to information on curbing pests and diseases amidst the COVID-19 crisis, FTFNIPM is scaling up a previously-adopted text messaging program and increasing communication efforts through social media in general.

The text messaging program, implemented in a different IPM Innovation Lab project by iDE, sent intermittent bulk text messages to farmers. The messages sounded alerts of emerging crop pests and diseases, and listed the contacts of IPM product suppliers, community business facilitators, and plant doctors, who could help address plant problems.

This effort increased IPM product sales in some communities by over 100 percent and significantly increased crop yields. While the stay-at-home order persists in Nepal, FTFNIPM is implementing the same program, but increasing the quantity and quality of the text messages. Now weekly messages contain detailed pest and disease management information farmers would not ordinarily receive outside of trainings or extension services.

For example, the messages include descriptions of how farmers can identify the fall armyworm pest at different stages of its life cycle, as well as step-by-step directions for sustainably curbing its spread, such as intercropping leguminous crops with maize crops. Messages continue to be written in the local Nepali language and do not require Internet access.

FTFNIPM is also coordinating with other programs in Nepal such as USAID-funded KISAN II to scale up the number of farmers receiving information. To further serve farmers in Nepal amidst the stay-at-home order, FTFNIPM has also:

- Requested that farmers send descriptions of crop damage to FTFNIPM crop experts, including photographs or videos of plant symptoms
- Created a Facebook page dedicated to fall armyworm resilience, where farmers can regularly access up-to-date information about the pest
- Offered contacts of local crop experts who farmers can communicate with if in doubt of fall armyworm presence in their fields

While restrictions vary by country, many farmers around the world are facing unexpected limitations to accessing the tools, technologies, businesses, and information they might ordinarily turn to during planting season.

"While much of the world has to halt during this pandemic, small-scale farmers must continue working in their fields – maintaining social distance – in order to serve their families and communities," said Lalit Sah, a coordinator with iDE. "Small-scale farmers already face a number of constraints, so we want to ensure as much support as possible."

FTFNIPM and iDE are hosting virtual meetings with technical experts and a range of government stakeholders from federal and provincial levels to discuss fall armyworm updates and a possible action plan for curbing the pest's spread amidst the COVID-19 lockdown.



To ensure that farmers continue to have access to crop pest and disease information amidst the COVID-19 stay-at-home order in Nepal, the IPM Innovation Lab is enhancing the quality and quantity of communication through a bulk text messaging system.



The fall armyworm is an invasive pest in Asia and Africa, where it has caused billions of dollars in crop losses.



Virginia Tech Peace Corps Recruiter Anne Patterson conducts a training in Squire's Student Center about a menstruation awareness program in Peace Corps.

IMPACT

Peace Corps recruitment continues online despite COVID-19 challenges

When in-person activities were cancelled at Virginia Tech, Peace Corps Recruiter Anne Patterson realized that she needed to reinvent the way she does her job.

According to Patterson, "Covid-19 changed the look of Peace Corps recruiting at Virginia Tech and in southwestern Virginia. There were activities, panels, and gatherings planned for the spring that could not happen. What that has meant for me has been Zoom office hours, information sessions, and classroom chats."

Patterson typically conducted recruitment activities in-person at campus and community events as well as during office hours.

She continued, "These are difficult times, as the number of applications has decreased. Students have been attending online information sessions and

emailing questions, and Peace Corps is continuing to interview potential volunteers. I'm here to help people in southwestern Virginia interested in development work overseas."

For the first time in history, Peace Corps suspended its global operations and evacuated all volunteers in countries worldwide on March 15. Several VT alumni were among those who evacuated following the announcement. Some current students were also impacted, as new volunteer departures have been pushed back to late fall.

Peace Corps has not specified when operations will resume. In the meantime, volunteers will remain in the States until it is safe for them to return to their countries of service. Peace Corps is still interviewing and recruiting in all six work areas (community economic development, education, environment, health, agriculture, and youth development) so that volunteers will be prepared to serve when operations resume.

Yet, Patterson is optimistic about getting back to a new normal. "Throughout all of the evacuations, departure delays, and disappointments, there is one thing that Peace Corps volunteers share – hope," said Patterson. "When it is safe, Peace Corps will send the volunteers back, and the work to spread knowledge and peace will continue."

IMPACT

Nearly 150 teachers graduate from training program in Guatemala, workshops and tours postponed

COVID-19 has impacted several activities planned in support of the *Escuela Nacional Central de Agricultura* (ENCA) project in Guatemala funded by the Millennium Challenge Corporation (MCC).

As the pandemic began to spread, ENCA held the closing ceremony for the teacher training program on March 10 at its headquarters in Villa Nueva, Guatemala.

Approximately 150 teachers participated in the training program from the network of 19 agriculture and forestry technical education schools across Guatemala. Due to COVID-19 concerns, international

program partners from Virginia Tech and EARTH University were unable to participate in this ceremony.

Virginia Tech, EARTH University, and program partners were scheduled to visit three network schools in mid-March, but the visits were postponed due to COVID. These site visits were designed to enable program partners to meet and discuss successes, challenges, and opportunities with teacher training participants at their home schools. Because of COVID, these site visits have been postponed.

A small group of faculty representatives from the Guatemalan agriculture and forestry school network were scheduled to visit Blacksburg in late April to learn more about experiential learning practices and analytical service labs. For now, this study visit has been put on hold, but the Virginia Tech team looks forward to hosting their Guatemalan colleagues in the future.



Teachers from a Guatemalan middle school, ESTEFFOR, display their certificates at the graduation.



CAAI, HAU, and Virginia Tech participants in the third Capacity Development for Agricultural Innovation Systems training

IMPACT

CAAI holds training on climate smart agriculture and value chain analysis

Since the start of Catalyzing Afghan Agricultural Innovation (CAAI), the USAID funded project has been conducting and supporting capacity building opportunities for Afghan agricultural educators. In March 2020, CAAI conducted the third phase of a series of trainings in India to connect Afghan agricultural participants with Virginia Tech faculty members.

The training workshop and study tour were designed to provide the next step in experiential learning for the promotion of Agricultural Innovation Systems (AIS), focusing on key topics targeted by CAAI, including climate-smart agriculture and applied research in agricultural value chains. Participants included the project management unit, teams from provincial sites, private-sector representatives, the partner university in India, Haryana Agricultural University (HAU), officials from the Afghan TVET Agency, and Virginia Tech mentors.

Building upon previous trainings in India, the first part of the workshop focused on climate-related risks and approaches to build resilience in agricultural practices and management. The second half of the workshop focused on the establishment of agricultural

research and supporting networks that link scientists, educators, extension agents, and private-sector stakeholders for demand-driven agricultural innovation.

“This was a very useful workshop conducted in a collaborative learning environment where we found out about new approaches and practices that can be applied to sustainable agriculture in Afghanistan.”

Saidajan Abdiani, Dean of the Agriculture Faculty, Nangarhar University

While COVID has impacted the project and activities on the ground in Afghanistan have become restricted, for security reasons the project has always had to rely to some extent on activities that can be conducted at a distance. Now, the project’s work plan is being revised to further identify activities that can be implemented via Internet and other communication media since Internet access is limited in some areas.

(continued on pg. 9)

CAAI cont.

This is helped by the “triangular cooperation approach” the project uses that connects Afghan researchers and educators with colleagues at Virginia Tech and HAU. While the feasibility of future training is uncertain due to COVID-19, VT and HAU faculty will continue to provide online mentorship and support as a community of practice to Afghan colleagues, for example to prepare proposals for a CAAI small grants program and for other funding opportunities.



HAU faculty members share climate-smart agricultural practices with the CAAI team during the training.

PROFILE

CIREC welcomes new financial and program coordinator

The CIREC team is pleased to welcome Terri Lashley as a new financial and program coordinator.

Lashley comes to CIREC with more than 20 years of experience in corporate finance and accounting roles. Prior to joining CIREC, she worked for one of the world's largest chemical companies. Lashley noted, "I started my career on an accounting team and worked my way up to a Controller position with responsibility for U.S. and Puerto Rico operations. Later, I was named the global leader for accounts receivables, covering a portfolio of approximately \$2.6 billion."

Lashley has extensive experience working internationally. "I had teams in Europe, the Pacific and North and South America and also partnered with our team in Saudi Arabia. My last position allowed me to travel to many places, to meet many people, and truly see the benefit of having a global perspective when solving problems. The skills I learned in these roles and the others that I have held have led to my current role as financial and program coordinator at CIREC."

In her new position, Lashley will be responsible for providing financial and operational support for departmental business and grant-sponsored projects as well as coordinating development and allocation of project budgets.



Terri Lashley

IPM Innovation Lab welcomes new research associate

The IPM Innovation Lab welcomes its newest team member, Anamika Sharma, a research associate. Sharma is an entomologist and insect ecologist. She most recently conducted her postdoctoral research at Montana State University, where she studied biological management of insect pests and the effectiveness of bio-pesticides, among other subjects. In addition to teaching, Sharma has also conducted field and laboratory-based research in Nebraska, India, and Australia and has experience disseminating agricultural information through extension activities. USDA-NIFA, the Montana Wheat and Barley Committee, and Western-SARE are among a few grants activities she has participated in over the years. She has published extensively in scientific journals.

In her new position, Sharma will be assisting the IPM Innovation Lab with a number of activities including conducting research on invasive pests such as *Tuta absoluta* and the fall armyworm, assisting host-country partners in scientific writing, composing reports, publishing extension articles, and preparing exhibits.

"I am thrilled to be part of the IPM Innovation Lab and CIREC," Sharma said. "The fact that this team continually works for the improvement of growers and agricultural conditions around the globe makes me even more delighted to be part of the IPM team. I look forward to working together and moving toward sustainable agriculture, environments, and balanced ecological systems."



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