

# innovATE

Innovation for Agricultural Training and Education



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The U.S. Government's Global Hunger & Food Security Initiative

## InnovATE Semi-Annual Report

### Year 5

Oct. 1, 2015 – March 31, 2016

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PENNSYLVANIA STATE UNIVERSITY



# Innovation for Agricultural Training and Education (InnovATE) Semi-Annual Report, Oct 1, 2016 – March 31, 2017

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Cover Photo: Roadside Stand between Mbeya and Morogoro, Tanzania

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## I. Introduction

InnovATE's work plan for FY2017 is about convening people and topics. With fewer requests from USAID missions for the project's assessment and project design services, we decided in FY2016 that one of the most valuable contributions the project can make is to act as a knowledge and partnership broker. The FY2017 activities reflect this decision. The project is physically bringing together people who might not meet but for the efforts of InnovATE. The RUFORUM conference side event in October 2016 in South Africa, for example, brought together African universities and 4-H organizations, which resulted in formalized partnerships for university outreach and youth development activities. Through monthly blogs on Agrilinks, the project created the Ag Educators Corner platform for US agricultural educators to share their knowledge and experiences with international agricultural educators. A lot of research exists on urban youth violence but not on rural youth violence. Therefore, we undertook a thematic study on youth violence and agriculture to address a literature gap. Additionally, we are examining the intersection of agricultural education and nutrition. This mid-year report presents the beginning of our year of convening.

## II. LEARN: AET system analysis and pilot projects

### ACTIVITY 1: Gather information and creating AET knowledge

#### Thematic studies

Thematic studies analyze a particular AET system or cross-cutting theme, private sector based investment opportunity, or emerging educational innovation. Three thematic papers were in progress during the first half of Year 5.

- **Self-assessment and quality control methodologies for AET institutions in Sub Saharan Africa**  
This paper alerts donors, government officials, and agricultural education and training (AET) faculties to the possibilities for collaboration in developing the human and institutional capital for sustained agricultural development in Africa. It also presents a context and process for local negotiation and application of indicators for assessment.
- **Youth violence prevention through rural community capacity building, agricultural development and civic engagement.**  
This study provides a thorough overview of the research and practice literature related to youth violence prevention in rural environments. It examines AET's role in fostering positive youth development, enhancing rural development, countering youth extremism, and fostering youth peacebuilding.

- **Intersection of AET and nutrition: a review of existing programs and recommendations for educators in teaching nutrition-sensitive agriculture**

At a time when nutrition-sensitive agricultural development is becoming more prevalent, this study addresses the ability of agricultural education to have a positive impact on nutrition programming. This study provides a literature review on existing nutrition-focused agricultural education program and recommends strategies for teaching dietary diversity and other principles of nutrition-sensitive agriculture within a traditional agricultural curriculum.

### **Produce technical briefs and good practice papers**

Technical briefs are condensed versions of thematic reports for a broader implementer audience. These documents are designed to guide and identify ways to improve AET capacity. Good practice papers seed innovation to a wide audience by tapping into the knowledge of AET practitioners, distilling their ideas, and publishing them in an easily accessible format. Two good practice papers were released in Q2.

- [Institutional Self-Assessment: A Tool for AET Program Improvement](#)

Self-assessment is the heart of an institution's 'quality assurance culture'. It is a critical tool for fostering conversation and improving communication within an organization. Because the process is internally driven, faculty members not only have a vested interest in its success, but also are in control. Mastery of self-assessment procedures builds the confidence and skills necessary for faculty and administrators to improve AET programming, prepare for accreditation reviews, and develop winning proposals for donor support.

Benefits of institutional self-assessments include:

- Improving the quality of student learning
- Establishing a basis for program improvement and growth
- Building political support for programs
- Facilitating development of local, national, and international partnerships
- Providing a blue-print for targeting funding
- Creating a vision for the college/institution

- [Place-based STEM Education](#)

Place-based STEM education prepares agriculture and science teachers to solve problems in the local community. Embracing an inquiry and critical thinking approach, place-based STEM education assumes the teacher and students are all learners in the classroom. Inquiry-by-design pedagogies engage learners in problem solving and design through an integrated approach in STEM subjects. The inquiry-by-design process involves learners in identifying problems related to local issues then brainstorming solutions; applying science and mathematics concepts; analyzing resources issues; choosing the best technologies and methods of data analysis; and evaluating solutions. The 5-E Learning Cycle (Engage, Explore, Explain, Elaborate, and Evaluate) is a useful teaching model for place-based STEM education. It provides a framework for teachers to engage learners in problem-solving and active learning. Using the place-based approach, each student brings the gift of his or her own perspective and life experiences to the activity and discussion. The classroom is enriched by collaborative discussions and investigations that directly affect the sustainability of their communities.

## ACTIVITY 2: Engage with a global audience and make AET knowledge accessible

### Agrilinks Blogs

InnovATE developed a new feature for Agrilinks - the Ag Educator's Corner. This series of monthly blog posts provides insight and tips to agricultural educators. Six blogs were posted in the first half of FY17. The blogs are averaging about 100 unique pageviews per blog.

- Melanie Miller-Foster and Daniel Foster, Penn State, launched the series in September. In our first post, [For Agricultural Educators, From Agricultural Educators](#), they highlight their experience teaching Integrated Pest Management (IPM) to secondary school students in Guatemala. By bringing hands-on, minds-on activity into the classroom and using research-based educational strategies and techniques, the Fosters improved learning outcomes and created a fun and memorable experience.
- Blaze Currie, former Executive Director of Agricorps, writes about the experience of a 4-H teacher abroad in Ghana who is struggling to connect with her students, before finding a new guiding teaching principle in [When in Doubt, Be Intentional](#).
- Kaylie Ackerley, a Secondary Agriscience Educator/FFA Advisor, was contemplating a business decision and planning a lesson for her Introduction to Agriculture class. When she decided to pose her dilemma as a real world problem-solving project, she sparked student engagement. Read the full story: [Using Authentic Problems in the Classroom to Make Agriculture Come Alive](#).
- In the January blog, [Agriscience: The World is Our Classroom](#), Krista Pontius, an Agriscience teacher of 20 years at Greenwood High School in central Pennsylvania shares her experiences. She says sparking passion is often a result of the first-year Agriscience course she teaches, where students are asked to create a scientific research project for the school's Agriscience Fair. This exercise encourages students to apply agricultural scientific principles and emerging technologies to real-world agricultural issues.
- Matthew Eddy, an Agriscience teacher of 20 years at Southeast Polk High School in Pleasant Hill, Iowa, shares his experiences in education [Using On-Site Agriculture Facilities for Successful Learning Experiences](#). Eddy was trying to engage students who were particularly interested in animal science, but soon realized that there were no opportunities for them to gain hands-on experience. When the opportunity arose to form a partnership with the Iowa State Fair, he jumped on it. By creating a partnership, his students worked with major commodity groups in the state, including beef, pork, egg, turkey and dairy along with producers of sheep and goats.
- Greg Schneider, an Agriculture teacher and Future Farmers of America (FFA) adviser at Greensburg Community Schools in Greensburg, Indiana, writes about the service-learning projects he has developed. These cover multiple project areas for students with diverse agricultural interests: landscaping, natural resource management, horticulture, agribusiness, and animal science. The key to his success is in taking the curriculum and combining it with hands-on projects that address

community needs. To read more check out: [Agricultural Service Learning Connects Students and Communities](#).

## Conferences and Events

### [5<sup>th</sup> Biennial Regional Universities Forum for Capacity Building in Agriculture Conference](#)

The RUFORUM Biennial Conference was held in Cape Town, South Africa from October 17th to 21st. The theme of the conference was “Linking Agricultural Universities with Civil Society, Private Sector, Governments, and other Stakeholders in support of Agricultural Development in Africa.” InnovATE held a side event that brought together presenters from universities and youth development organizations in Ghana, Liberia, Senegal and Tanzania. Thirty-six participants discussed agricultural outreach programs and curricula, university cooperation in positive youth development programs, and community-focused experiential learning. Five African universities contributed to the session: the University of Thies (Senegal), the University of Liberia, the University of Cape Coast (Ghana), the University for Development Studies (Ghana), and Sokoine University of Agriculture (Tanzania). Key takeaway messages from the session were that being involved in 4-H or similar activities gives students a sense of responsibility. The 4-H leaders represented at the session would like universities as partners. They believe 4-H has an agriculturally focused curriculum that is relevant to the livelihoods of youth.

As a result of this event, universities in Ghana and Liberia have entered into memoranda of understanding (MOU) with the respective national 4-H organizations. 4-H Ghana signed an MOU with the Department of Agriculture Economics and Extension at the University of Cape Coast to do the following: 1) assess and evaluate the 4-H methodology and its impact on youth; 2) disseminate university research to local communities through extension students working with 4-H; 3) connect with land-grant universities in the US for cross cultural learning experiences for students and faculty members; and 4) jointly solicit calls for proposals to support projects. 4-H Ghana has also initiated the process to sign an MOU with the University of Development Studies in the northern region of Ghana. 4-H Liberia signed an MOU with the University of Liberia. That relationship is being strengthened through the assistance of Agricorps volunteers. InnovATE was the catalyst for these mutually beneficial partnerships that will increase university outreach to communities and address badly needed youth development in those countries.

### [INGENAES Global Symposium and Learning Exchange](#)

InnovATE was invited to present at the Shift and Share portion of the INGENEAS symposium in Lusaka, Zambia held on Jan 23-25, 2017. This presentation outlined a series of trainings and teaching guides on the intersection of gender and agriculture. InnovATE created a 5-part training module series aimed at teaching young students designed to help agricultural educators guide students to address their unidentified biases and understand how bias can unconsciously influence any decision making process. The modules walk participants through an analysis of gender bias in the home, outside the home activities, in agricultural production settings and in broader society. This session highlighted the pedagogy behind this series and how to incorporate the modules into work with communities. We hope to encourage educators and their students to begin to shift the paradigm of their beliefs about gender.

Attendees left this presentation with an outline of the training modules and access to all of the teaching tools that make up this series.

### III. DESIGN: Technical support and design

#### ACTIVITY 3: Provide technical assistance for AET assessments and HICD programming

##### **Center of Excellence for Sustainable Agricultural Intensification and Nutrition**

InnovATE expanded recommendations to USAID/Cambodia for investment it is planning at the Center for Excellence in Sustainable Intensification and Nutrition (CE-SAIN) at the Royal University of Agriculture (RUA), in Cambodia. RUA is developing CE-SAIN in collaboration with the Sustainable Intensification Innovation Lab led by Kansas State University. From February 27-March 9, 2017, InnovATE Director Larry Vaughan, OIRED Executive Director Van Crowder, and USAID HICD Advisor Jessica Bagdonis met with RUA and USAID/Cambodia to conduct interviews and stakeholder meetings that contribute to better project design.

##### **Continuing Professional Education for ATVET instructors in Central America**

In the first half of FY17, planning was underway for a workshop to explore the feasibility of using a higher education institution, in our example EARTH University, to develop regional continuing education capacity for ATVET instructors in Central America. The workshop was planned for April at EARTH University campus in Guacimo, Costa Rica.

#### ACTIVITY 4: Develop tools for assessments and project design

No tasks were planned for this activity during the first half of FY17.

### IV. TRAIN: Human Capacity Development

#### ACTIVITY 5: Hold AET workshops

##### **Convene meetings, workshops and symposia**

In the first half of FY17, planning was underway for the InnovATE Symposium [Intersections of Policy and Practice to Strengthen AET Systems](#). The event will be held on June 7-9, 2017 at the Kellogg Conference Center at Gallaudet University in Washington, D.C. The symposium poses answers to the question: How do internal or external, national or institutional policies affect agricultural education and training (AET) systems in the developing world? It will focus on insights about policy environments for the development and strengthening of AET systems. We will bring together approximately 150 educators, international development practitioners, government representatives, private sector players and USAID officers and staff. A pre-symposium workshop focusing on HICD Storytelling will lead off the event on Wednesday June 7<sup>th</sup>.



## ACTIVITY 6: Produce online events for Agrilinks

InnovATE, with KDAD support, has designed and moderated interactive online events (e.g. online panel chat, ag-exchange event, Ag Sector Council seminar or webinar), that focus on the benefits, lessons learned, and practical how-to's for building agricultural education and training capacity. We are showcasing content and information pertaining to agricultural development approaches, current USAID projects, tools and case studies. Discussions typically focus on lessons learned and implications for scalability and application to agriculture and food security programming.

On February 22, 2017, InnovATE hosted an hour long Ask Ag Chat on Agrilinks entitled: "[Ask Ag About...Positive Youth Development](#)." Positive Youth Development (PYD) programs provide opportunities for young people to build skills and exercise leadership in their communities. In addition, programs that involve universities, extension services, local organizations, government, schools and the private sector can be tremendous catalysts for change.

Panelists were Gary Walker (USAID Bureau for Food Security); Bineta Guisse (USAID Education and Research in Agriculture (ERA) project); Prosper Doamekpor (Tuskegee University); Umaru Sheriff (4-H Liberia); and Susan Naburi (4-H Tanzania). These experts discussed questions from the online audience on topics concerning PYD including:

- What types of training or extension services are most effective for creating sustainable community based youth programs?
- How should key stakeholders be engaged to create a positive youth development program?
- Youth are very diverse. What tools or methods do community-based programs use to engage youth demographics, inclusive of gender, education, religion, and life-stage, in agriculturally-focused work?
- How are positive youth development programs different or new compared to other community-based programs used to provide agricultural and life skills to youth?

There were 23 commenters, and 104 total comments for the Ask Ag About – Positive Youth Development chat. There was a much larger audience reading the comments. The chat page received 858 pageviews and 175 unique pageviews. The chat included practical advice with many recommended resources on positive youth development.

## ACTIVITY 7: Develop training modules and instructional materials

InnovATE develops training modules and teaching guides for online tutorials to ensure a complete package of resources available for each topic. Additional teaching guides and supplemental materials for the series of training modules on [Teaching Gender to Secondary and Tertiary Students](#) were completed in Q1. These are in pdf format and available on the InnovATE website.