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Innovation for Agricultural Training and Education

Year 4

Annual Report

October 1, 2015 – September 30, 2016

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InnovATE Mission

The Innovation for Agricultural Training and Education (InnovATE) project is part of the Feed the Future Initiative supported by U.S. Government assistance, with the mission to achieve sustainable food security, reduce poverty, promote rural innovation and stimulate employment by building human and institutional capacity. The program focuses on all aspects of agricultural training and education including: youth, gender, and workforce development, at the primary, vocational/technical, university and post-graduate levels.

InnovATE Objectives

InnovATE defines and disseminates good practice strategies, approaches, and investments for establishing efficient, effective and financially sustainable agricultural education and training institutions and systems. InnovATE will support country programs for agricultural education and training reform and investment.

**All pictures courtesy of
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Sunset in Mbeya, Tanzania

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List of Acronyms

- AET - Agricultural Education and Training
- ATVET - Agriculture Technical Vocational Education and Training
- AEMIP - Agriculture Education and Market Improvement Program
- ASTE - The Association for Science Teacher Education
- AOR - USAID Agreement Officer's Representative
- BACET - Building Agribusiness Capacity in East Timor
- BFS – Bureau for Food Security
- CEAA - Center for Agroforestry and Environmental Education
- CDCS - Country Development Cooperation Strategy
- CFCN - Call for Concept Notes
- CIDER - Center for Instructional Development and Educational Research
- COMET - Connecting the Mekong through Education and Training
- CoP - Community of Practice
- EARTH - Escuela de Agricultura de la Región Tropical Húmeda
- EE - Entrepreneurship Education
- EHELD - Excellence in Higher Education for Liberian Development
- ERA - Education and Research in Agriculture
- FADCANIC - Foundation for the Autonomy and Development of the Atlantic Coast of Nicaragua
- FTF – Feed the Future
- HICD - Human and Institutional Capacity Development
- iAGRI - Innovative Agricultural Research Initiative
- InnovATE - Innovation for Agricultural Training and Education Project
- KDAD - Knowledge Driven Agricultural Development project
- NARST - National Association for Research in Science Teaching
- PAC - Program Advisory Council
- Penn State or PSU – The Pennsylvania State University
- SOW - Statement of Work
- STEM - Science, Technology, Engineering and Math
- TU - Tuskegee University
- TVET – Technical and Vocational Education and Training
- UF - University of Florida
- USAID - United States Agency for International Development
- UWI - University of the West Indies
- VT- Virginia Tech

Executive Summary

The Innovation in Agricultural Training and Education (InnovATE) Project was created to work with USAID country missions to assess and strengthen AET systems through human and institutional capacity development (HICD), thereby improving food security, stimulating employment and reducing poverty. In the fourth year of the project, under the LEARN component, InnovATE contributed to the better understanding of AET practices by completing a variety of AET information gathering and knowledge creation activities. InnovATE published:

- Five good practice papers identifying strategic actions to strengthen national or institutional AET systems. Seven discussion papers (1 completed in FY16 and 6 from FY15) of the series addressing *Contemporary Challenges in Agricultural Education and Training* were published.
- Three thematic studies and nine thematic briefs, including a study and two briefs focused on interventions addressing youth violence in Central America's Northern Triangle.
- “*If you study, the last thing you want to be is working under the sun:*” *An analysis of perceptions of agricultural education and occupations in four countries.* This article examined issues that face students who wish to participate in AET with a focus on the perception of agriculture as a field.

Under the DESIGN component:

- InnovATE held a design review workshop June 7-10, 2016, uniting project implementers and their counterparts involved in current or recently completed agricultural institution development projects of USAID. Workshop participants compared experiences and challenges, shared success stories, and reviewed lessons learned in the course of implementing USAID AET projects.
- InnovATE began a response for the USAID/Cambodia mission for design support for strengthening institutional capacity at the Royal University of Agriculture.
- A design team conducted a scoping activity involving the ministerial vocational institutes and universities to evaluate how to strengthen the national AET system at the request of the USAID/Tanzania mission.

Under the TRAIN component:

- InnovATE is collaborating with the Knowledge Driven Agricultural Development project (KDAD) to utilize their Agrilinks site as a central platform to communicate about AET with the donor and development community. As a high traffic site, Agrilinks provides high visibility for InnovATE.
- InnovATE researchers and host country partners presented a webinar for the Agriculture Sector Council, “Building Linkages in Agricultural Education and Training through Systems Thinking”, as the culmination of a series of blogs and events focused on AET pedagogy and curriculum.
- InnovATE and Agrilinks brought together practitioners working in different sectors in Central America for an online panel discussion, “From Citizen Security to Food Security: A cross-sector discussion of violence in Central America”, to discuss how violence disrupts development and what to do about it.
- The project developed a set of five gender and education training modules to show teachers how to challenge youth to critically analyze whether they are basing judgement of tasks, skills and responsibilities on sex or gender norms. The goal of the training for youth is to enable them to consider career paths primarily by interest and skill rather than being limited by an internalized or societal gender bias.

Introduction

The Year 4 annual report describes InnovATE project accomplishments during the period from October 1, 2015 through September 30, 2016. The report is organized with an introduction including key findings followed by sections detailing activity in our Learn, Design, Train project components. The last section of the report details administrative tasks completed in Year 4 and includes a summary of performance indicators. This report was prepared with input from the InnovATE consortium partners: the Pennsylvania State University (PSU); Tuskegee University (TU) and the University of Florida (UF).

The InnovATE project is part of the Feed the Future initiative supported by the U.S. Government to increase sustainable food security and reduce poverty. The sustainable end of hunger and poverty requires investments in long-term, local human and institutional capacity development for agricultural education and training (AET). InnovATE promotes rural innovation and employment by building human and institutional capacity in AET. The InnovATE project:

- addresses the gap between the supply of trained agricultural professionals and the market's demand for skilled employees, while addressing the employment needs of youth and women;
- provides a foundation for building human and institutional capacity for relevant and effective agricultural education and training at all levels; and
- contributes to the AET knowledge base and disseminate good practices, to inform effective programs and institutions.

InnovATE made a series of operational adjustments for Year 4. The first adjustment came out of the Year 3 annual partners' meeting in March 2015 when the InnovATE team decided on three themes to focus on for Year 4 activities. The themes selected, based on a mid-point review of project activities, are: Gender Challenges and Opportunities; Rural Workforce Development and Youth; and Pedagogy and Curriculum. InnovATE promotes the following messages:

- The success of women and girls in the agricultural education pipeline requires that institutions adopt mainstreaming policies and practices.
- The agricultural education and training pipeline from primary through tertiary institutions must be strengthened to populate local economies with appropriately trained workers.
- AET curriculum and program development should be demand-driven and informed by workforce needs.

Table 1 shows Year 4 activities arranged by these three themes. Key findings from work completed in Year 4 by theme are listed below.

Table 1. InnovATE Year 4 Activities by Theme

	Gender Challenges and Opportunities	Rural Workforce Development and Youth	Pedagogy and Curriculum
LEARN	Encouraging girls in higher education agricultural programs Supporting gender equity in agricultural education and training programs and institutions Gender thematic challenges and opportunities blogs	Business planning and entrepreneurship development in AET Incubating entrepreneurship skills and opportunities in agricultural secondary schools Youth and workforce development blogs	Revised curriculum and pedagogy for extension specialists Self-assessment and quality control for AET institutions Introducing the use of syllabi for student-centered learning Mainstreaming STEM pedagogy Pedagogy and curriculum blogs
		Building entrepreneurship skills and opportunities in AET curricula Case study on institutional models in Central America: FADCANIC/EARTH	
DESIGN		Project design support to USAID Missions/Bureaus Scoping synthesis Design review workshop of AET project leaders Concept note evaluation Survey of Mission AET monitoring and evaluation strategies	
TRAIN	Gender workshop lesson plans Gender teaching materials for tertiary agricultural education	Regional workshop on AET curriculum for workforce development and employers' needs Online chat: ATVET for youth workforce development Seminar: ATVET for youth workforce development Agricultural Sector Council Webinar	Online chat: Pedagogy and curriculum Seminar: Pedagogy and curriculum Agricultural Sector Council Webinar Revised curriculum and pedagogy for extension specialists
	Spotlighting career opportunities along	the agricultural value chain	
		Professional development for AET educators to introduce the idea of teaching for the value chains AET pedagogy to support entrepreneurship	

Key Year 4 Findings

Gender Challenges and Opportunities

InnovATE produced three gender-focused good practice papers, written by Anouk Patel-Campillo and Carolyn Booth Reyes at Penn State, with important recommendations for strengthening AET institutions and programs. These focused on cultivating mentorship, securing funding for women in agricultural education, and adopting gender-sensitive curricula and pedagogical practices. Additionally, InnovATE published four blog posts on identifying and eliminating gender-specific barriers to AET on Agrilinks.

- Women’s participation in the agriculture-related fields is among the lowest in comparison to the humanities, education and health. Even when women are enrolled in agriculture-related academic programs, there are obstacles to retention including lack of mentoring, advising and career counseling as well as outright discrimination. One way to address these obstacles is to develop a mentorship program. University administrators and faculty members can create successful mentorship programs without investing much time or resources.
- The shortage of women in agricultural sciences calls for action to provide adequate funding assistance. Securing funding support for women in higher education in the agricultural science programs has the potential to empower women, break pervasive cycles of poverty, and improve the livelihoods of families and communities. Generating awareness of available resources is a first step. Administrators and faculty members can engage creatively with alumni and the

community to generate additional local funding. The returns on such investments are increased access to education and improved livelihoods for families and communities.

- Engaging in practices that deter gender bias falls in line with the aims and commitments stated in the global Sustainable Development Goals. One way to reduce gender biases in agricultural education is through gender-sensitive curricula and pedagogical practices of teachers. University administrators and faculty members in the agricultural sciences need not wait for momentous change to occur at the national level or even at their schools or universities to make inroads into reducing gender bias. Through gender-sensitive curricula and pedagogical practices, educators can make strides toward alerting and sensitizing students—the future generation of leaders—to the biases that plague women and other marginalized populations.

Rural Workforce Development and Youth

An important issue that we have explored is the challenge violence poses to development, particularly in Central America. InnovATE produced a thematic study and thematic briefs, as well as a series of Agrilinks blogs and a very popular cross-sector online panel discussion on violence and development.

For the AET sector in high-violence countries, any efforts at improving AET systems are unlikely to succeed without addressing violence. Farmers can be trained to increase crop yields, but the training will not amount to anything if they cannot take their produce to market for fear of violence. Similarly, AET projects addressing violence are more likely to succeed by collaborating and learning from projects in other sectors facing the same problem. Violence must be addressed if development is to succeed, AET projects or otherwise. Any development efforts in countries suffering from such high levels of violence must address it through a concerted, collaborative, cross-sectoral approach.

Pedagogy and Curriculum

InnovATE published a series of discussion papers that address [*Contemporary Challenges in Agricultural Education and Training*](#). These are literature reviews exploring ideas and approaches to AET system challenges. In the latest publication in the series, [*Identifying Pathways Linking Agricultural Education, Training and Extension*](#), researchers at Haramaya University in Ethiopia examined pathways to improve the link between agricultural extension and education. Linking extension and education is among the key imperatives to address the challenges faced by AET institutions in making concrete contributions to their agricultural innovation systems.

The following are alternative pathways to create links between extension and education:

- Include practical learning in the structure of the curriculum such as field based courses, entrepreneur projects, internship programs implemented in collaboration with local farmers and other agricultural sector actors.
- Create structures that allow for meaningful interaction between educational institutions and the private sector, such as curriculum advisory committees and internship programs.
- Institute system-wide reforms that strengthen institutions and programs through accreditation bodies and in-service training for faculty and staff.
- Establish a link between AET research and extension by undertaking community-based research and practical student learning.



“Empowering teachers, building sustainable societies”
 -UNESCO

The next operational adjustment was in personnel. With the retirement of InnovATE’s director, Keith Moore, in November 2015, Larry Vaughan became the new director of InnovATE. Penn State recruited Patricia Neiner, Anouk Patel, and Ruth Mendum to provide expertise and support for InnovATE’s work in the Gender in AET theme. Additionally, at the end of Year 3, InnovATE hired Merrie Winfrey as Multimedia Learning and Communications Specialist to assist in creating training modules and in carrying out InnovATE’s communication strategy. Year 4 was the first full year of this position on staff.

The final operational adjustment was making a focused, sustained communications effort. InnovATE developed and implemented a communications strategy with two goals: promoting a sustainable supply of human and institutional capital responsive to market demands in order to achieve food security; and positioning InnovATE as a thought leader in AET. In other words, we want to convince the development and donor communities to invest in human and institutional capacity development (HICD) in AET and think of InnovATE when they want to know about HICD in AET.

I. LEARN: AET System Analysis

In Year 4, there were three LEARN activities: gathering information and creating AET knowledge; making this information accessible to a global audience; and transitioning the AET community of practice to Agrilinks.

ACTIVITY 1: Gather information and create AET knowledge

Data collection on institution building for home-grown entrepreneurs

This task follows InnovATE scoping trips conducted in Years 2 and 3 in Nicaragua and Honduras. In October 2015, Henry Quesada-Piñeda and John Ignosh of Virginia Tech interviewed administrators, teachers, students, and alumni to document entrepreneurship education in the vocational training program at the Foundation for the Autonomy and Development of the Atlantic Coast of Nicaragua (FADCANIC) in Wawashang, Nicaragua. In February 2016, Quesada-Piñeda and Ignosh conducted interviews with faculty members and administration at *Escuela de Agricultura de la Región Tropical Húmeda* (EARTH) University in Guacimo, Costa Rica to determine how EARTH University's strong agricultural program could be connected to local TVET programs in the region. EARTH University has a strong reputation for producing high-performing entrepreneurs for the agricultural sector. FADCANIC is a local TVET institution serving as a model linkage to EARTH. It is hypothesized that EARTH University can be an excellent resource for the development of and support for such local TVET programs.

- [FADCANIC Center for Agricultural and Environmental Education and Center for Agroforestry Trip Report](#) (October 19-23, 2015)
- [Field Interviews with EARTH \(Escuela de Agricultura de la Región Tropical Húmeda\) University's Permanent Education Program](#) (February 23-26, 2016)

A case study based on this research was published in Q4:

- [Capacity Building for Agricultural Technical Vocational Educational and Training \(ATVET\) Programs in Developing Countries: A Case Study in Nicaragua](#), by Henry Quesada-Piñeda, John Ignosh, and Breanna Anderson, Virginia Tech

The most important good practices of the FADCANIC school (CEAA) included: autonomy from the government, outstanding leadership by FADCANIC leaders, quality and motivation of teachers, support and integration with communities, land ownership, teaching of not only technical aspects of agroforestry but also leadership, entrepreneurship, and communication skills; and ethnic group integration. Given the financial model of the center, its expansion plans, and the sustainability-centered *ethos* of the center, the following recommendations were provided for possible further exploration:

1. Assess costs associated with current practices
2. Evaluate alternatives that may generate a savings, while:
 - a. complying with the CEAA's objectives related to wise stewardship
 - b. exploring these opportunities while engaging private sector partners for project support, curriculum refinements, and future alumni employment networking
3. Implement the selected appropriate new practices and systems
4. Integrate and leverage the new practices and systems into student curricula
5. Invest any cost savings into the next project priority

A key component of the case study was to develop a proposal for a continuing professional education program for agricultural TVET teachers in the region. EARTH University, an international higher education institution with outstanding credibility and impact in agricultural education in developing countries, was chosen as the host for the program. A proposal was designed based on the experiences of EARTH University in similar capacity building programs in Latin America. InnovATE will conduct a workshop on regional continuing professional education for ATVET in Year 5.

Thematic studies

Thematic studies analyze a particular AET issue or cross-cutting theme. InnovATE published a study on the citizen security approach to reducing youth violence in Central America's Northern Triangle Countries (El Salvador, Guatemala, and Honduras) and its effect on education. This study examined the drivers of youth violence, risk-factors to youth participation in violence, how youth violence is impacting development in the region, the interventions that are currently being used, and the interventions that are lacking. There is an emphasis on the relationship between education and violence, although the paper takes a comprehensive approach to the topic.

The paper concluded that any intervention strategy aimed at addressing youth violence in the Northern Triangle must be multi-sectoral and highly inclusive of both government and the public. As such, it is important to note that any of the interventions discussed above will likely not work in isolation from a comprehensive violence reduction strategy. Recommendations for interventions addressing social work, education, economic growth, and research are collected in **Table 2**.

- [*Youth Violence and Citizen Security in Central America's Northern Triangle*](#), by Rebecca J. Williams, University of Florida

Table 2: Highlighted violence reduction recommendations for education systems in Central America
(references available in full thematic study)

Domain	Recommendations
Social	<ul style="list-style-type: none"> ➤ Establish and promote mentoring programs for at-risk youth.
Education	<ul style="list-style-type: none"> ➤ Implement school programs aimed at keeping students involved in school including sports, clubs, and other extracurricular activities. ➤ Implement life skills programs, initiatives on gender norms and attitudes, and similar programs for children and youth. ➤ Implement school reintegration programs, alternative schooling programs, distance learning programs, and other “second chance” avenues to continue education, particularly for those who may have left school early. ➤ Promote interaction and collaboration between schools, families, and the community.
Economic	<ul style="list-style-type: none"> ➤ Increase international aid and development funding for resources and technical support for violence reduction. ➤ Invest in job skills training and life skills training. Couple such programs with job placement programs. ➤ Implement and promote microenterprise development programs. ➤ Implement communication, culture and technology programs focused on keeping both girls and boys in school and continuing on to secondary education.
Research	<ul style="list-style-type: none"> ➤ Increase empirical research and evaluation on youth violence intervention strategies across all domains. ➤ Increase research on the epidemiology of youth violence.

Technical briefs

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. Technical briefs produced in Year 4:

- [*Youth Violence and Education-Based Interventions for Citizen Security in Central America's Northern Triangle*](#) Rebecca J. Williams, University of Florida
- [*Rethinking Interventions Addressing Youth Violence in Central America's Northern Triangle*](#) Rebecca J. Williams, University of Florida
- [*Preparing Young Entrepreneurs in Sub-Saharan Africa: Middle-Level Tertiary Education*](#) Matt Baker, Texas Tech University
- [*Engaging Rural Youth in Entrepreneurship through Extracurricular and Co-curricular Systems*](#) Seth Heinert and T. Grady Roberts, University of Florida
- [*Core Competencies for Agricultural Extension Educators*](#) Murari Suvedi and Ramjee Ghimire, Michigan State University
- [*Youth Engagement in Agricultural Education and Training Systems*](#) Sarah Eissler and Mark Brennan, The Pennsylvania State University
- [*Modernizing Vocational Technical Schools to Develop a 21st Century Credentialed Work Force*](#) John R. Vreyens and Charles Anderas, University of Minnesota
- [*Identifying Pathways Linking Agricultural Education, Training and Extension*](#) Jemal Yousuf Hassen, Alemu Sokora and Mukerem Taha, Haramaya University
- [*Equipping Youth with Agripreneurship: Linking Secondary Agricultural Education to Communities*](#) Stephen C. Mukembo and M. Craig Edwards, Oklahoma State University

Good Practice Papers

InnovATE is committed to soliciting good practice papers from AET practitioners around the world. A good practice is strategic action that increases AET institutions' effectiveness or moves a country-wide AET system towards system-wide viability.

- [*Cultivating Mentorships for Women in Agricultural Sciences Higher Education Programs*](#) Anouk Patel-Campillo and Carolyn Booth Reyes, Penn State
- [*Gender Sensitive Curricula and Pedagogical Practice in Agricultural Education*](#) Anouk Patel-Campillo and Carolyn Booth Reyes, Penn State
- [*Funding: Supporting Women in Agriculture-Related Higher Education*](#) Anouk Patel-Campillo and Carolyn Booth Reyes, Penn State
- [*Ensuring Education for the Girl Child: Best Practices in Menstrual Hygiene Management*](#) Nneoma Nwankwo, Virginia Tech
- [*Cooperative Learning*](#) Matt Spindler, Virginia Tech

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Rethinking the World's Food System

Cultivating Mentorships for Women in Agricultural Sciences Higher Education Programs
Anouk Patel-Campillo and Carolyn Booth Reyes, Penn State

Women's participation in the agriculture-related fields is among the lowest in comparison to the humanities, education and health (Zseleczky et al., 2013). Even when women are enrolled in agriculture-related academic programs, there are obstacles to retention including lack of mentoring, advising and career counseling as well as outright discrimination.

For women enrolled in agriculture-related programs attending school may entail moving away from family, friends and their support network to unfamiliar places and contexts where norms of behavior and academic expectations are different from what they have experienced potentially causing feelings of alienation, and loss. Higher attrition rates for women have been associated with feelings of isolation, the absence of role models, and unfamiliarity with the competitive climate of academic programs (Chen and Soldner, 2013). Unlike their male counterparts, women often do not have role models or informal networks to acquaint them with life in an academic setting (Morley, 2006). A shortage of role models and lack of mentorship and guidance for women is particularly troublesome in agriculture-related fields long considered to be a male domain. Because scholarly performance and program completion depends on the well-being of students, it is important to provide women with mentorship and a support network to help them thrive.



Women in science helping women in science in Mali.
Photo: Virginia Tech, GRED

The Role of a Mentor
A good mentor is committed to social change, leads by example, uses their achievements to lift and empower others, and provides thoughtful guidance and support of future generations of leaders and scholars. A mentor can have a wide range of roles. In agriculture-related fields, where men dominate administrative positions, program committees, review boards, and professorships, it is of utmost importance for mentors to play supportive roles and work toward making opportunities and social networks available to women. The mentor relationship is a means to encourage successful program completion and the professionalization of women students. In this sense, mentoring includes connecting women students with key people, available resources, and information as well as assisting with academic goal setting and career planning.

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Connect and collaborate with AET practitioners around the world

Consortium faculty members attend and present at national and international conferences as an opportunity to demonstrate effective instructional practice and disseminate InnovATE scholarship.

- 8th Annual Conference on Higher Education Pedagogy, Center for Instructional Development and Educational Research (CIDER) at Virginia Tech, February 10-12, 2016. **Using Place-based STEM Education for Preparing Teachers in Developing Countries.** George Glasson, Josiah Tlou, and Johanna Cricenti, Virginia Tech
- 2016 National Association for Research in Science Teaching (NARST) Annual International Conference, Baltimore, MD, April 14-17, 2016. **International Symposium on Culture, Language, Practices, and Place in STEM Education: Indigenous and Place-Based Approaches,** Pauline W. U. Chinn, University of Hawaii – Manoa; Steven C. Semken, Arizona State University; Huihui Kanahale-Mossman, University of Hawaii Hilo; Geoffrey Bruce, Arizona State University; Chiung-Fen Yen, Providence University, Taichung, Taiwan; Hsuan-Fang Hung, Providence University, Taichung, Taiwan; David Zandvliet, Simon Fraser University; **George Glasson, Virginia Tech;** Sharon Nelson-Barber, WestEd; Rojjana Klechaya, Srinakharinwirot University, Bangkok, Thailand
- USAID Food Security Roundtable, Washington, D.C., April 25, 2016. **How can the demographic bulge of youth in Africa be educated and equipped to meet the food security needs of the continent?,** Larry Vaughan, Virginia Tech

This series of roundtables brought together experts to identify and debate strategic options to incorporate into its new global food security strategy. InnovATE was invited to contribute to the roundtable on youth employment in agriculture and food systems. Director Larry Vaughan was a panel member making the case for investment in HICD:

An agricultural education and training (AET) system should respond to the changing needs of the agriculture sector by ensuring that students learn both useful soft skills and technical skills. Consideration of the institutional landscape of a national or regional AET system provides a comprehensive perspective for guiding changes required to meet the needs of the agriculture sector. Senegal, for example, has undertaken important changes in its higher education system with USAID support and inspiration. However, such high level revision requires a combination of intellectual vision and political will that can be identified and supported by the donor community, but probably not created.

Course and curriculum revision are most often undertaken at the level of individual institutions, which is a level at which capacity development projects routinely operate. Institutions require tools that help them understand skillsets that employers want students to acquire. One-off revision of courses and curricula is less helpful for institutional capacity development than adopting processes that ensure a cycle of inquiry, introspection, and adaptation. Among tools that administrations can adopt are tracer studies that follow recent graduates into the job market and incorporation of local private sector guidance in curriculum design and strategic planning. Independent, but complementary to procedures adopted by administration are tools to help individual teachers adapt. Chief among such tools is syllabus development.

Soft skills in leadership and teamwork can be included in formal schooling through experiential learning and internships. Positive youth development such as 4-H is adaptable to primary and secondary schools as well as post-secondary out-of-work youth. In instances when vocational or higher education AET institutions have or desire an outreach mission, positive youth development is an opportunity to create or strengthen linkages with communities in partnership with extension services or local school systems, thereby reinforcing a systems approach.

- 2016 Mid-Atlantic Association for Science Teacher Education (ASTE) Conference, Gatlinburg, Tennessee, September 22-24, 2016. **Place- based STEM Education Workshop in Malawi**, George Glasson, Virginia Tech

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

Agrilinks

In Year 4, InnovATE collaborated with the Knowledge Driven Agricultural Development project (KDAD). Their Agrilinks site has become an important platform for InnovATE to reach the development community and AET professionals. As a high traffic site, Agrilinks is a major pathway for engaging with USAID and providing high visibility to resources and announcements that appear on the site.

In October 2015, our collaboration began with a blog series introducing AET's importance for economic development. Links and descriptions for these posts are included below:

- [Ending Poverty and Hunger through Strengthening Agricultural Education and Training](#) Merrie Winfrey, Virginia Tech
- [Agricultural Education and Training Must Be Local and Demand-Driven](#) Merrie Winfrey, Virginia Tech

In December 2015 and January 2016, InnovATE produced another blog series focused on identifying and eliminating gender barriers in AET. By examining gender-specific barriers to women's participation in AET programs and institutions in countries around the world, InnovATE charted pathways to success for women's participation in agricultural education.

- [Empowering Women for Success in Agriculture](#) Paige Castellanos, Penn State University
- [Starting Point for Addressing Infrastructure-Related Safety Concerns for Women in Agriculture Education and Training](#) Paige Castellanos, Penn State University
- [Breaking Barriers to Girls' Education: Menstrual Hygiene Management](#) Nneoma Nwankwo, Virginia Tech
- [Changing the Perception of Agriculture for More Women's Participation](#) Paige Castellanos, Penn State University

In February, our Agrilinks collaboration emphasized the relationship of pedagogy and curriculum in AET systems. The posts in this series were written by Grady Roberts of the University of Florida.

- [The Difference Between Agricultural Education and Extension, and Why It Matters](#)
- [Connecting Theoretical and Practical Instruction: A Critical Agricultural Education and Training Linkage](#)
- [EARTH University: A Model for Agricultural Education and Training Linkages](#)

In May we had two blogs published about agricultural education and training with a third to follow in July. We also had a series of blogs published as a precursor to our online panel discussion on violence and development in Central America.

- [Why is AET Important for Long-Term Sustainability of Agricultural Development Outcomes?](#) This post from Clara K. Cohen, InnovATE's Agreement Officer's Representative at USAID, explains that agricultural education and training (AET) is crucial for preparing and supplying a skilled, capable workforce that will ensure institutions are resilient and perform effectively.

- [How to Strengthen Agricultural Education and Training Linkages--Part 1 of 2](#), and [How to Strengthen Agricultural Education and Training Linkages - Part 2 of 2](#). Wayne Ganpat of the University of the West Indies (UWI), St Augustine, Trinidad and Tobago followed up on the [February 2016 Ag Sector Council Seminar](#) on linkages in AET with some practical actions from his experiences. These posts focused on the linkage between AET and industry.
- [Gender-based Violence in Central America Requires a Cross-Sector Response](#). This post from Paige Castellanos of Penn State highlighted the problem of gender-based violence in Central America, particularly for women in agriculture. She showed some examples of program interventions and concluded that livelihood and agricultural production projects should consider gender-based violence when creating and implementing programs.
- [Cross-Sector Approach Needed for Violence Mitigation and Development Success in Central America](#). This post from Rebecca J. Williams of the University of Florida described the widespread issues of violence and their effect on development, including AET projects. She posits that a collaborative, cross-sectoral approach is necessary to end violence and achieve development goals.
- [Violence in Central America: Not Just an Urban Issue](#). Rebecca J. Williams of the University of Florida, showed that violence in Central America affects rural areas differently but just as significantly as urban areas.

Communications Insights

Our revised communications strategy for Year 4 was to conduct regular, targeted communications through social media and Agrilinks. Staying on message was critical to the strategy. We had four messages, which should be apparent through our social media posts and Agrilinks activities:

- Investments in long-term, local human and institutional capacity development are needed
- Institutions must develop and implement policies and practices to recruit and retain women
- A diversified, high quality workforce for the agriculture value chain requires strengthening the educational pipeline from primary school to university
- AET curricula must be demand driven and responsive to value chain workforce needs

Table 3 shows some of our social media results for Year 4 compared to Year 3:

Table 3: InnovATE Social Media Results

	Monthly Avg. Posts		Monthly Avg. Reach ¹ / Impressions ²		Monthly Avg. Engagements ³		Monthly Avg. Mentions ⁴		Monthly Avg. URL Clicks	
	Yr 3	Yr 4	Yr 3	Yr 4	Yr 3	Yr 4	Yr 3	Yr 4	Yr 3	Yr 4
Facebook	4.7	20.9	171	1785	13.8	75.1				
Twitter	13.9	52.2	3805	22476	36.3	143.1	4.0	10.9	8.1	27.4

1 “Reach” is number of unique users who viewed any content on InnovATE’s Facebook page

2 “Impressions” are number of times a user is served a tweet in a timeline or search results

3 “Engagements” for Facebook are number of unique users liking your page; posting to your page’s timeline; liking, commenting on or sharing one of your page posts; answering a question you posted; mentioning your page; tagging your page in a photo; for Twitter, “Engagements” are number of times a user interacted with a tweet—clicks anywhere on tweet, including retweets, replies, follows, likes, links, cards, hashtags, embedded media, username, profile photo or tweet expansion

4 “Mentions” are anytime someone uses the InnovATE twitter handle in a tweet

We have grown in every aspect of social media, and the data show that we are hitting our target audience and growing awareness of InnovATE. Some of our significant new followers on Twitter this year include: **Root Capital** (grows rural prosperity by investing in small and growing agricultural businesses that build sustainable livelihoods in Africa and Latin America; 19,200 twitter followers); **United Nations University World Institute for Development Economics Research** (undertakes research and policy analysis on global development and poverty issues; 41,500 twitter followers); **Entrepreneurship Africa** (profiles entrepreneurs and entrepreneurial activities across Africa; 13,200 twitter followers); **Julie Borlaug** (Advocate for innovation & technology to end hunger & poverty; continuing the Borlaug legacy & inspiring next generation of Hunger Fighters; 5,276 twitter followers); **African Capacity Building Foundation** (supports capacity development initiatives to build human and institutional capacity in Africa; 1,046 twitter followers); **World Farmers Organisation** (brings together producer organizations and agricultural cooperatives around the world, advocating for farmers worldwide; 3,525 twitter followers); **Glasswing International** (empowering individuals to address the root causes of poverty and violence in their communities through education and health programs; 1,051 twitter followers); **Corinne Woods** (The official account of the Director of Communications at the UN World Food Program; 3,167 twitter followers); **AgriFoodAid** (Cluster organization providing expert training across the agrifood supply chain in sub-Saharan Africa; 17,100 twitter followers); and, **Inter-American Institute for Cooperation on Agriculture Delegation in USA** (committed to achieving agricultural development and rural well-being in Latin America and the Caribbean; 337 twitter followers)

Our Agrilinks activities have been very successful. The Ask Ag About online chat about interactions between agricultural education and extension broke Agrilinks’ record for number of comments at 162 from 40 participants. The chart below shows number of pageviews and unique pageviews for all of our Agrilinks blogs combined and the online chat. “Pageviews” are the number of times a page was viewed; it includes multiple views of a page by the same user. “Unique pageviews” are the number of sessions in which a specified page was viewed at least once; if a user viewed a page multiple times in one session, those views are only counted once for unique pageviews. The most read blog post was “Empowering Women for Success in Agriculture,” written by Paige Castellanos of Pennsylvania State University, with 265 pageviews and 234 unique pageviews with an average time spent on the page of four minutes and thirty-four seconds. **Table 4** shows overall data for our Agrilinks activities:

Table 4: InnovATE activity on Agrilinks

	Total Pageviews	Unique Pageviews
<i>Agrilinks Blog Posts</i>	1406	1161
<i>Ask Ag About online chat</i>	1360	689

Finally, as part of the goal to make InnovATE an AET thought leader, the communications activities should drive people to our publications on the InnovATE website. While the total number of visits, unique users and pageviews are down from Year 3, the data indicates that the communications strategy is working. The cumulative number of pageviews and unique pageviews for almost all of InnovATE’s publications pages are up from Year 3. Furthermore, looking at the monthly averages, the users who came to our website looked at more pages and stayed significantly longer—over one minute longer (practically a lifetime in website viewing). Also, the monthly average bounce rate (which is the percentage of visits in which the person left the site from the entrance page without interacting with the page) is down almost

five percent from 64.1% in Year 3 to 59.5% in Year 4. This data indicates that we have an engaged audience—exactly what we want. **Table 5** and **Table 6** below support this conclusion:

Table 5: InnovATE website results

<i>InnovATE Website</i>	Total # Visits		Total # Unique Users		Total # Pageviews		Monthly Avg. # Pages Viewed per Visit		Monthly Avg. Visit Duration (min:sec)		Monthly Avg. Bounce Rate*	
	Yr 3	Yr 4	Yr 3	Yr 4	Yr 3	Yr 4	Yr 3	Yr 4	Yr 3	Yr 4	Yr 3	Yr 4
	7253	5255	5565	3558	13074	14806	2.2	2.6	2:03	3:06	64.1%	59.5%

Table 6: InnovATE website pageviews

	Total # Pageviews		Total # Unique Pageviews	
	Yr 3	Yr 4	Yr 3	Yr 4
Training Module pages	471	643	403	502
Good Practice Papers pages	296	393	263	298
Thematic Studies pages	292	357	238	312
Country Studies pages	266	443	183	364
Tools pages	259	187	224	149

ACTIVITY 3: Transition of AET community of practice (CoP) to Agrilinks community

InnovATE transitioned efforts away from recruitment of membership on the InnovATE Community of Practice (CoP) supported by the Jive platform. We initially did not eliminate the CoP but moved it to a Moodle platform, which we managed without outside contractors. All CoP users were notified multiple times of the change. When we made the move from Jive to Moodle in January 2016, we transferred all users to the Moodle platform. Given the very low response of users who have actually logged into the Moodle CoP, we believe the revised strategy to engage stakeholders through existing web networks such as Agrilinks was the better, more efficient use of time and resources.



We need to educate young people on possible careers in the agricultural value chain and erase the negative connotations of agriculture.



II. DESIGN: Technical Support and Design

The objective of the design component is to help missions make investments for education and training that support sustainable agricultural development. Design activities provide missions with recommendations for programming decisions and project design.

ACTIVITY 4: Respond to mission requests for services

InnovATE provides guidance at the request of USAID missions for AET investments and is prepared to design and implement statements of work (SOW). InnovATE submitted a SOW for a scoping activity by request of USAID/Tanzania and drafted a response to a request from the USAID/Cambodia that will be finalized in Year 5.

USAID/Tanzania requested InnovATE to field a team for a new activity on human and institutional capacity development (HICD). The project design activity was conducted from September 6-26, 2016. The team interviewed stakeholders and made recommendations for a four-year project focusing on strengthening vocational agricultural institutes. The project will assist select institutions to improve the relevancy of their curricula and the effectiveness of teaching so as to produce graduates having skills that match employment needs in agriculture and who will contribute to transforming how Tanzanian agriculture is practiced. The team was comprised of the following members:

- Asia Barnabas – independent local consultant.
- Dave Hansen – higher education expert. The Ohio State University
- Joseph Mukuni – vocational education expert. Virginia Tech
- Larry Vaughan – team leader. Virginia Tech
- Rebecca Williams – gender expert. University of Florida



Faculty members, external stakeholders, administrators, and the InnovATE project design team posing after an informative stakeholder meeting at the Ministerial Agricultural Technical Institute (MATI) at Uyole in southern Tanzania in September.

Country Development Cooperation Strategy (CDCS) Analysis

InnovATE began a systematic review of the current Country Development Cooperation Strategy (CDCS) and Feed the Future (FTF) Strategy documents for USAID missions. This analysis will identify USAID missions where AET systems strengthening is in alignment with current strategies. This task will highlight good examples in existing HICD projects. The report and presentation of results from this task will be included in Year 5 activities.

ACTIVITY 5: Build project design capacity for missions

Host a design review workshop for AET project leaders

In June, InnovATE hosted a design review workshop uniting project implementers, host country partners and USAID mission officers involved in current or recently completed AET institution building projects to examine the challenges faced, success stories and lessons learned in designing and implementing several major USAID HICD projects. The design review focused on the processes that lead to success and transformation. The workshop sought to document the tacit knowledge of implementers to support recommendations for good design in future HICD projects. Session topics included:

- challenges from the perspectives of U.S. project leaders and international institutional representatives;
- building trust and partnerships;
- agricultural education and training system-wide considerations;
- curriculum development and pedagogical reform; and
- governance and leadership

Featured projects participating in this workshop included:

Project	Country
Agriculture Education and Market Improvement Program (AEMIP)	Guinea
Education and Research for Agriculture (USAID/ERA)	Senegal
Building Agribusiness Capacity in East Timor (BACET)	East Timor
Innovative Agricultural Research Initiative (iAGRI)	Tanzania
Excellence in Higher Education for Liberian Development (EHELD)	Liberia
Rebuilding Higher Education in Agriculture (RHEA)	South Sudan
Innovation in Agricultural Training and Education (InnovATE)/Armenia	Armenia

The workshop documented the impact of AET investments and lessons learned from each of the projects, as well as system policies and institutional design recommendations for future investments. The proceedings will be released early in Year 5.



Discussing leadership and governance in AET institutional development projects are left to right, Ipolito Da Costa (Technical Education and Training Ministry of Agriculture and Fisheries, East Timor), Josiah Tlou (VT School of Education), Clara Cohen (USAID/BFS) and, Nona Fisher (Winrock International).

ACTIVITY 6: Provide technical assistance for project design

Investigate HICD assessment challenges

In Year 3, a sub-committee was formed to review AET assessment tools, examine conceptual models for AET assessment, and align them with monitoring and evaluation indicators. The purpose was to gather information on best practices for AET assessment and evaluation from the perspective of USAID mission staff. Investigators solicited information from USAID missions about relevant indicators for USAID HICD projects focused on AET and rural workforce development to identify gaps and needs for AET assessment. InnovATE completed telephone surveys with representatives from five Missions (Senegal, Egypt, Tanzania, Guinea and Cambodia) and with the Connecting the Mekong through Education and Training (COMET) project. Based on the results of this study InnovATE recommended that long-term tracking and outcome evaluation needs to be integrated into project design to determine sustained project impacts. Further, additional training of Mission staff in project evaluation for AET is needed to enable them to provide greater input into the development and implementation of evaluation activities, to recommend best practices for evaluation and align data collection with FTF indicators more effectively.

- [*Agricultural Education and Training \(AET\) Assessment: A Survey of USAID Mission Strategies*](#), Nikki Kernaghan and Jessica Childers, University of Florida, and Lia Kelinsky, Virginia Tech

Contemporary Challenges in AET

The final works in the series *Contemporary Challenges in Agricultural Education and Training* were published in Year 4. These are literature reviews exploring ideas and approaches to AET system challenges. These discussion papers supported InnovATE's work to compile and disseminate good ideas on building the capacity of AET institutions. The complete series is available on our website and we continue promotion of these papers through our ongoing social media campaigns.

- [*Developing the Capacity of Middle-Level Tertiary Education in Preparing and Nurturing Young Entrepreneurs in Sub-Saharan Africa*](#) Matt Baker. Texas Tech University

This review addresses the gap between current entrepreneurship education (EE) programs offered in middle-level tertiary institutions in Sub-Saharan Africa and ideal programs. The author provided background on middle-level tertiary institutions in Sub-Saharan Africa, as well as on EE theory, delivery models, and ideological approaches. Diploma-granting colleges are the forgotten sector in the literature, but serve as a critical bridge between secondary education and university programs as well as a supportive link to TVET institutions. EE programming continues to resonate with policy makers, regional leaders, and students, holding promise for future economic prosperity to countries with high unemployment.

- [*How Competent Are Agricultural Extension Agents and Extension Educators In Nepal?*](#) Murari Suvedi and Ramjee Ghimire. Michigan State University

Changing local and global contexts demand competent human resources in agricultural extension services. Extension professionals should possess core competencies such as knowledge, skills, attitudes and behaviors that help them attain excellence in their professions. Training and education have significant impact on workers' core competencies. Therefore, agricultural educators have to be competent in teaching the core competencies that students of extension and advisory services need. Studies about core competencies of extension professionals and agricultural educators in Nepal are lacking. This review explored theories on core competencies and, core competency studies. It proposes core competencies that agricultural extension services in Nepal may find useful.

- [*Review of Research and Practice for Youth Engagement in Agricultural Education and Training Systems*](#) Sarah Eissler and Mark Brennan. The Pennsylvania State University

The youth bulge has recently received much attention from the development community, particularly in how it intersects with the future of agriculture. As the demand for sustainable agricultural production increases, in conjunction with high rates of rural youth unemployment and vulnerability to high risk behaviors, the youth crisis requires proactive responses. Agricultural education and training systems have an opportunity to re-engage youth in the agricultural sector. Youth issues should be prioritized in policy and strategy development. Research, programming and policy development should solicit and integrate youth's voice, perceptions, desires and needs. Data disaggregated by gender, locality and region must be collected to better understand the current environment to tailor best practices.

- [*Engaging Rural Youth in Entrepreneurship through Extracurricular and Co-curricular Systems*](#) Seth Heinert and T. Grady Roberts. University of Florida

Generally, rural youth have been uninterested in careers related to agriculture or persisting in rural areas, may have aspirations for becoming an entrepreneur, and may have different aspirations than their urban or non-agriculture counterparts. Several studies indicated youth form opinions about careers at an early age, so making positive impressions about entrepreneurship in agriculture should happen when they are relatively young. Teachers' abilities and willingness to teach entrepreneurship concepts is influenced by their personal backgrounds. Many nations are emphasizing results-driven entrepreneurship education.

- [*Modernizing Vocational Technical Schools to Develop a 21st Century Credentialed Work Force*](#) John R. Vreyens and Charles Anderas. The University of Minnesota

The increased importance of value-chain development strategies requires a new approach to designing post-secondary agricultural education and training (AET) to meet skills requirements of developing economies. To produce highly skilled graduates, AET curriculum reforms need to be based on the labor markets of agricultural value-chains. The published literature on the best practices for AET reform indicates that aligning AET graduates' knowledge and competencies to the labor demands of value-chains is best achieved through partnerships with industry, work force credentials, equal gender opportunity, and professional development of teaching staff.

- [*Project-based Learning: Equipping Youth with Agripreneurship by Linking Secondary Agricultural Education to Communities*](#) Stephen C. Mukembo and M. Craig Edwards. Oklahoma State University

New approaches should be adopted to ensure students acquire *hands on, minds on* experiences to solve challenges experienced in their communities such as unemployment and food insecurity. One such approach could be the use of project-based learning in secondary schools to integrate agricultural and entrepreneurship education, i.e., *agripreneurship* to engage young people with farmers in their communities, as well as other stakeholders.

- [*Identifying Pathways Linking Agricultural Education, Training and Extension*](#) Jemal Yousuf Hassen, Alemu Sokora and Mukerem Taha. Haramaya University

This research assesses the latest evidence on the linkage between extension and education to identify potential pathways that bond agricultural education and training with extension for improved skill learning of students and extension needs of farmers. The paper first highlights key challenges underlying poor or underachievement of AET in sub-Saharan Africa and attempted reforms, and then makes a detailed analysis of good practices demonstrating potential pathways to link extension with education.

III. TRAIN: Direct Investment in Human Development

ACTIVITY 7: Plan and conduct thematic workshops

Agriculture Sector Council Seminar/Webinars and moderated online chats

This activity builds on the dialogue of our Agrilinks blog series (Activity 2). Our Agrilinks collaboration continued in February with two online, interactive sessions about pedagogy and curriculum in agricultural education and training series.

The Agriculture Sector Council is Agrilinks' regular monthly seminar series. Online chats, called AskAg, were timed to precede seminars by one week, and serve as an opportunity to begin topic-relevant discussions and promote seminar attendance. Our Ask Ag About online chat [Interactions between Agricultural Education and Extension](#) featured a panel of agricultural education and extension experts fielding questions and comments from the Agrilinks audience regarding the critical linkage between education and extension in agriculture. The chat broke Agrilinks' record for number of comments, 162 from forty participants.

The following Agriculture Sector Council webinar in February, [Building Linkages in Agricultural Education and Training through Systems Thinking](#), wrapped up the InnovATE pedagogy and curriculum series. This seminar promoted the application of systems thinking to agricultural education and training for sustainable agricultural development. By understanding entire AET systems and the connections within them, practitioners can account for modifying factors and better influence agricultural education outcomes. The webinar was introduced by InnovATE's AOR Clara Cohen. Presenters were:

- **Grady Roberts**, Executive Director for the Global Education Lab at the University of Florida
- **Wayne Ganpat**, Head of the Department of Agriculture and Economics and Senior Lecturer in Agricultural Extension and Communications at the University of the West Indies
- **Seth Heinert**, Board of Directors, Indigenous Education Foundation of Tanzania, Liaison to Youth Board and Youth Network

The presenters showcased successful examples of AET systems and discussed how they were developed. Eighteen people attended the seminar in Washington D.C. One hundred and fifty-two people from 39 countries participated online.

Also through our partnership with Agrilinks, InnovATE hosted a very well attended online panel discussion "[From Citizen Security to Food Security: A Cross-Sector Discussion of Violence in Central America.](#)" In June, we brought together practitioners working in different sectors in Central America to discuss how violence disrupts development and what to do about it. The high prevalence of violence in Central America is a major human and institutional development challenge. Specifically, the Northern Triangle countries – El Salvador, Guatemala and Honduras – are considered three of the most dangerous countries in the world as evidenced by intentional homicide rates. The level of violence clearly affects development in many areas, particularly in terms of agriculture and youth's participation in agricultural education.

InnovATE began looking at this issue to investigate why youth, and young men in particular, were dropping out of the agricultural education system at alarming rates in Central America. In addition to young males, high violence rates affect all youth and women, as well. It became clear that violence in Central America is a pervasive, complex issue that requires a complex response from across sectors working to end hunger and poverty. It cuts across development sectors — agriculture, education, youth development, workforce development, economic development, health and nutrition, and democracy and governance — to make cross-sector collaboration of paramount importance to reaching food security goals in the Northern Triangle.

Panelist in our cross-sector discussion were:

- Ken Baker, Co-Founder and Chief Executive Officer, Glasswing International
- Fernando Rubio, Project Director of Guatemala Lifelong Learning Project, Juárez & Associates
- Karen Towers, Education Team Lead in the Office for Regional Sustainability in the USAID Bureau for Latin America and the Caribbean
- Isabel Aguilar Umaña, Regional Technical Advisor in Youth Related Violence Prevention, Catholic Relief Services



Deliver trainings and develop materials

InnovATE is developing instructional materials to support short- and long-term training in our three thematic areas (Activity 8). The InnovATE gender team at Penn State conducted a train-the-trainers session for training modules on gender and career opportunities along the agricultural value chain at the Global Youth Economic Opportunities Summit in Arlington in September 2016. The event was sponsored by Making Cents International. Patty Neiner presented "**Engaging Youth in Gender Based Discussions Around Agricultural Careers.**" The presentation consisted of a brief overview of the need to address gender issues with youth in all countries and then moved into the specifics of the five-part gender module series created by InnovATE. An emphasis was put on the anticipated target audience for these modules and how to build awareness among participants of their own gender beliefs before they begin to teach the modules. In addition, facilitators need to spend a good deal of time investigating the culture and its beliefs so they know what issues they are facing with safety and willingness to shift beliefs.

ACTIVITY 8: Complete AET training modules

Teaching Gender to Secondary and Tertiary Students

This series of five modules on teaching gender to secondary and tertiary students is intended for teachers and facilitators to engage youth in gender-based discussions of agricultural careers. Youth may make career choices based on the gender norms of the adults around them without critical awareness of the gender bias they may have unthinkingly adopted. The InnovATE gender and education training modules show teachers how to challenge youth to critically analyze whether they are basing judgement of tasks, skills and responsibilities on sex or gender norms. The objective of the training for youth is to enable them to consider career paths primarily by interest and skill rather than being limited by an internalized or societal gender bias.

- [Module 1 Introduction](#)
- [Module 2 "Sex" vs. "Gender"](#)
- [Module 3 Gender and Household Dynamics](#)
- [Module 4 Gender and Activities Outside the Home](#)
- [Module 5 Societal Influences on Traditional Gender Roles in Agriculture](#)

The modules were previewed at the Youth Economic Opportunities Summit in September 2016 and received very favorable feedback. A representative from KDAD was at the workshop and asked to feature the modules on Agrilinks as complementary training to their planned modules on using the Women's Empowerment Index for Agriculture. In Year 5, the modules along with instructional materials will be available on Agrilinks as well as on InnovATE's website.



The image shows a video player interface with a green border. The main content is a photograph of a group of young people sitting on the floor in a classroom or community setting, engaged in a discussion. The text 'innovATE' is in the top left corner, with the tagline 'Innovation for Agricultural Training and Education' below it. The title 'Teaching Gender to Secondary and Tertiary Students' is prominently displayed in large green letters, with 'Module 2: "Sex" v. "Gender"' below it. A photo credit 'Photo: Rick Bates' is visible. At the bottom, there are logos for 'FEED THE FUTURE' (The U.S. Government's Global Hunger & Food Security Initiative) and 'USAID' (FROM THE AMERICAN PEOPLE). The video player controls at the bottom include a play button, a progress bar, and icons for volume, closed captions, and a close button.

ACTIVITY 9: Produce a database of agricultural training opportunities

In the early years of the project, the consortium gathered information on worldwide training programs related to building AET capacity and compiling information into an online database housed in our Community of Practice (CoP). The CoP was housed on a Jive platform for which we contracted with a private company to set up and maintain. At the end of Year 3, we decided to move away from our own CoP and transition to using the Agrilinks community, which is far larger and includes many more people in our target audience. With the transition away from the CoP, the database has been relocated to a Moodle platform. During Year 4, the CoP on Moodle was accessible through the InnovATE website. Based on the number of people who followed the CoP through its transition to the Moodle platform, we decided to not devote any further resources to the CoP in Year 5.

ACTIVITY 10: Publish and disseminate results of prior studies

InnovATE posts all project publications through the InnovATE website and shares its work in the Agrilinks library. Additionally, InnovATE adds to AET scholarship through peer-reviewed journal publications. In Q2, an article submitted by Kristal Jones, (PSU) Rebecca J. Williams, (UF) and Thomas B. Gill, (PSU) was published in **Agriculture and Human Values**. This article looks at issues that face students who wish to participate in AET with a focus on the perception of agriculture as a field. The paper uses data from students hailing from Honduras, Haiti, Bangladesh, and Nepal.

[“If you study, the last thing you want to be is working under the sun.” An analysis of perceptions of agricultural education and occupations in four countries](#)



There are over 1.1 billion young people in the world who need to be able to find good jobs, start and grow businesses, gain access to appropriate financial services and overall, participate in the global economy.



IV. Administrative Tasks

ACTIVITIES 11-13: Administrative tasks

Reporting

The management entity submitted our semi-annual report and all quarterly financial reports in Year 4. This annual report was compiled with contribution from all partners.

Plan and conduct meetings of the Program Advisory Council (PAC)

A PAC meeting was held on April 6, 2016 at the Kellogg Conference Center at Gallaudet University in Washington D.C.

Partners meeting

The Year 4 Annual Partners meeting was held on June 6-7, 2016 at Mountain Lake Lodge in Pembroke, VA. The objective was to commence planning for Year 5 and report recent progress.

Administration

In Q1, Larry Vaughan was approved as the InnovATE project director at Virginia Tech.



“The new Sustainable Development Goals (SDGs) have gender equality and women’s empowerment at their core, and include a target to ‘double the agricultural productivity and incomes of small-scale food producers, in particular women’. Indeed, rural women are critical to the success of almost all of the 17 SDGs.”

—Secretary-General Ban Ki-moon



Appendix A: InnovATE Summary Table of Performance Indicators

Indicators ¹		Actuals/Targets				
USAID/ Dept. of State Indicators		FY13	FY14	FY15	FY16	FY17
	Number of higher education partnerships between US and host country higher education institutions that address regional, national, and/or local development needs	1/1	1/4	2/2	2/2	2
Feed the Future Indicators	FF1. Number of individuals who have received USG supported short term agricultural productivity or food security training (4.5.2-7) (T5 – T7)	123/60	166/115	135/165	218/215	240
	FF2. Number of public-private partnerships formed as a result of FTF assistance (4.5.2-12)	0/0	0/2	0/2	0/3	0
Custom Indicators based on FTF Needs	FF3. Number of institutions/organizations undergoing capacity/competency assessments as a result of USG assistance (4.5.1-7) (D2)	2/2	20/6	13/8	7/8	1
	FF4. Number of institutions/organizations undertaking capacity/competency strengthening as a result of USG assistance (4.5.1-8) (D6)	0/0	1/4	0/6	0/6	4
Custom Learn Indicators	L1. Number of registered users accessing project databases	0/0	215/100	237/150	N/A	N/A
	L2. Total number of times training database accessed		6218/5000	12324/10000	N/A	N/A
	L3. Studies completed (background/thematic studies)	6/7	7/7	11/7	4/6	3
	L4. Technical notes and good practice papers disseminated	2/3	10/5	7/6	14/8	8
	L5. Academic papers published	0/0	0/1	0/3	1/3	3
Custom Design Indicators	D1. Consultancies for AET development linkages and AET support services	2/2	7/4	2/6	1/2	2
	D2. AET system program evaluations	1/1	5/4	2/4	1/1	1
	D3. AET reform and investment plans designed	1/1	0/2	0/3	1/1	1
	D4. Institutional linkages established with private enterprises	2/2	4/6	0/10	0/10	12
	D5. AET reform and investment plans implemented	0/0	1/1	0/3	0/2	2
	D6. AET institutions strengthened	0/0	1/4	0/6	0/6	4
	D7. AET assessment tools developed	9/3	3/0	1/1	0/0	1
Custom Train Indicators	T1. Training workshops hosted	0/0	2/2	3/2	2/2	2
	T2. Short-term training supported for curriculum development	0/0	1/10	0/10	0	0
	T3. Training modules developed	0/2	1/3	1/3	5/3	3
	T4. Number of training module users	0/0	0/200	403 ² /100	502/100	500
	T5. Total number of training module views			471/200	643/200	600
	T6. Policy makers trained in AET	15/15	12/15	5/15	12/15	15
	T7. Development practitioners trained in AET	58/25	98/50	98/100	84/100	125
	T8. Development professionals trained in AET	50/20	56/50	32/50	122/100	100
	T9. Regional/international symposia hosted	1/1	1/1	1/1	0/0	1

¹ Grey rows = indicator dropped Green cells = targets adjusted

² FY15 Number adjusted based on revised google analytics to include sub-pages.

Appendix B: FY16 Indicators Notes

Indicators	Actual/Target	FY15 Notes
Number of higher education partnerships between US and host country higher education institutions that address regional, national, and/or local development needs	2/2	EARTH University & FADCANIC
FF1. Number of individuals who have received USG supported short term agricultural productivity or food security training (4.5.2-7)	218/215	Project Design Review Workshop – 48 Ag Sector Council – 170
FF2. Number of public-private partnerships formed as a result of FTF assistance (4.5.2-12)	0/3	No AA requested in FY16
FF3. Number of institutions/organizations undergoing capacity/competency assessments as a result of USG assistance (4.5.1-7) (D2)	7/8	Tanzania 3 universities: SUA, UDSM, SUZA; 4 MATIs Uyole, Ilonga, HORTI Tengeru, KATI
FF4. Number of institutions/organizations undertaking capacity/competency strengthening as a result of USG assistance (4.5.1-8) (D6)	0/6	No AA requested in FY16
L1. Number of registered users accessing project databases	200	Indicator dropped
L2. Total number of times training database accessed	10000	Indicator dropped
L3. Studies completed (background/thematic studies)	4/6	Case Study FADCANIC, Youth & Violence, AET & Extension (HU); Mission Survey Report; in review AET Indicators, delayed to FY17 Institutional Self Assessment and Quality Assurance; dropped Professional Development for Agricultural Educators; Community Participatory Curriculum Development
L4. Technical notes and good practice papers disseminated	10/8	7 Briefs Contemporary Challenges Concept Notes 5 GPP – 3 gender, Cooperative Learning, MHM 2 – Thematic Youth Violence
L5. Academic papers published	1/3	Ag&Human Values
D1. Consultancies for AET development linkages and AET support services	1/2	Tanzania
D2. AET system program evaluations	1/1	Tanzania
D3. AET reform and investment plans designed	1/1	Tanzania
D4. Institutional linkages established with private enterprises	0/10	No AA requested in FY16
D5. AET reform and investment plans implemented	0/2	No AA requested in FY16
D6. AET institutions strengthened	0/6	No AA requested in FY16
D7. AET assessment tools developed	0/0	
T1. Training workshops hosted	2/2	Project Design Review; Agrilinks Ag Sector Council
T2. Short-term training supported for curriculum development	0	Indicator dropped
T3. Training modules developed	5/3	Teaching Gender to Secondary and Tertiary Students
T4. Number of training module users	502/100	Unique views
T5. Total number of training module views	643/200	Total page views
T6. Policy makers trained in AET	12/15	Host country policy makers
T7. Development practitioners trained in AET	84/100	AET institution instructional staff, field technicians, etc.
T8. Development professionals trained in AET	122/100	NGO staff, USAID Mission staff, etc.
T9. Regional/international symposia hosted	0/0	



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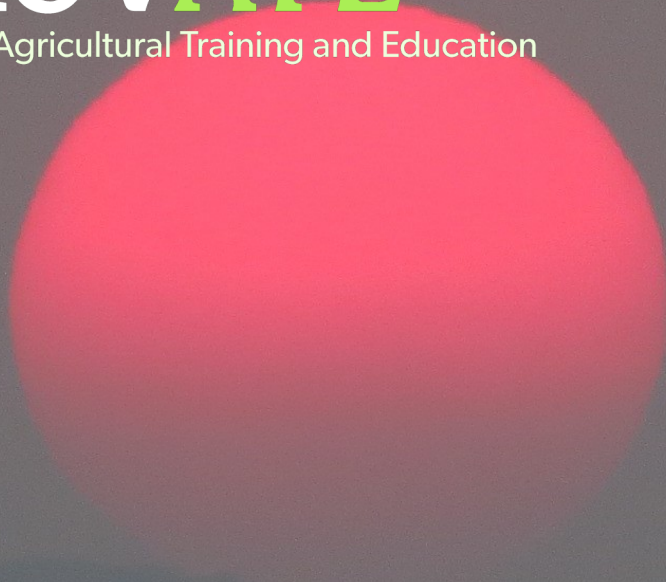


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