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Agricultural Education and Training (AET) Assessment: A Survey of USAID Mission Strategies

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Introduction

Innovation for Agricultural Training and Education (InnovATE) is a USAID-funded project that supports capacity development of agricultural education and training systems in primary, secondary, vocational, and tertiary education. InnovATE's main objective is to "define and disseminate good practice strategies, approaches, and investments for establishing efficient, effective and financially sustainable agricultural education and training institutions and systems" (InnovATE, 2015). The InnovATE program is implemented by a consortium of US universities led by Virginia Polytechnic and State University and including Pennsylvania State University, Tuskegee University, and the University of Florida.

In responses to stakeholder feedback, InnovATE commissioned a study to investigate the approaches and strategies employed by USAID Missions to assess Agricultural Education and Training (AET) project outcomes and impacts. This report summarizes the results of this study and discusses potential approaches to improve assessment and evaluation of USAID AET programs. The first section of the report introduces the methodology used for the study and provides some background information on AET engagement by the USAID Missions that participated in the study. The second section provides a review of the results of the study, based on the responses from USAID Missions. The final section provides suggestions for improvement in approaches to AET program assessment and evaluation by USAID and their Missions.

Methodology

The InnovATE team first established a sub-committee consisting of faculty from the four partner universities and representatives from USAID-Washington. The sub-committee members all had previous experience with implementing AET project-level assessment and/or evaluation and were familiar with the standard USAID Feed-the-Future indicators. The subcommittee determined that phone interviews with USAID representatives from Missions that had implemented AET projects would be the most effective approach for gathering data. A series of questions for the phone interviews were developed and refined to solicit 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. The final semi-structured interview protocol included seven questions:

1. What prompted your Mission's investment in AET?
2. What specific indicators/tools have you used to monitor progress and evaluate outcomes of AET programs/projects? Were these indicators/tools useful in documenting the impact of AET programs/projects?
3. What evaluation measures were used to follow-up with program participants to track outcomes? For example, pre-post tests, follow-up interviews, gathering on-site data, etc.
4. Can you provide examples of AET projects/programs that included successful M & E?
5. What challenges have you experienced in evaluating AET projects/programs?
6. How has your theory of change been validated based on the impacts that were measured?
7. Is there anyone else who has been actively involved in AET evaluation that you think we should talk to?

Between August and October 2015, the InnovATE team interviewed representatives from five USAID Missions that each implemented at least one large, usually centrally-funded, AET program.

Cambodia

USAID Cambodia AET intervention is primarily focused on financing scholarships for training at both Cambodian and overseas institutions through the USAID-HARVEST Program. This five-year program provided technical assistance, training, material and other resources as needed to improve food security through enhanced agricultural development and management of natural resources. Thus, agricultural education was one small component of a larger food security program in Cambodia and there was not a specific person responsible for the education and capacity building activities. The HARVEST program completed all field activities in March 2016 and will end in 2016.

Egypt

USAID Egypt has implemented two interconnected AET projects. The Agricultural Exports and Rural Incomes Project (AERI) was a 4-year, \$57.3 million project which ran from 2003 to 2007. The project goals were to increase on-farm and agribusiness jobs and rural incomes. One component of this project involved the modernization of the AET curriculum, with training and capacity building for lecturers from five Egyptian universities provided through connections with counterparts in the US. The second, parallel project, worked with farmers to increase their capacity to work with horticulture crops, and understanding of value chains and markets and ended in 2013.

Guinea

USAID Guinea's Agriculture Education and Market Improvement Program (AEMIP) is working to strengthen agricultural education in Guinea, through partnership with the Institut Supérieur Agronomique Valéry Giscard d'Estaing de Faranah (ISAVF), as well as agriculture stakeholders and local and regional educational and environmental institutions. The program aims to establish public-private partnerships for AET, integrate experiential learning approaches, and integrate nutrition education, gender main-streaming and climate smart agriculture in AET. This program began in 2014 and is scheduled to continue until 2018, with anticipated outcomes including the establishment of ISAVF as a Center of Excellence, development of strong linkages between ISAVF and technical schools, and to train at least 2,000 students and faculty.

Senegal

USAID Senegal has made significant investment in AET, including the Education and Research in Agriculture (ERA) project. This program is a capacity building initiative, based on the US land-grant model. The goal of the program is to build educational and institutional capacity in 12 Senegalese institutions that conduct training in agriculture. The program includes funding for masters and PhD students. Other notable investments include a 20 year partnership with the Senegalese Institute for Agricultural Research (ISRA) and support for seed testing.

Tanzania

Tanzania USAID is implementing the Innovative Agricultural Research Initiative (iAGRI) project, led by the Ohio State University in partnership with Sokoine University of Agriculture (SUA). It is a six-year project, and is due to finish in 2017. The goal of the iAGRI project is to build a sustainable food system through training, research, outreach and institutional transformation in the private and public sectors.

The iAGRI project has trained 135 PhD and masters students, and is working to enhance research and teaching capacity at SUA.

Results

All Mission's included in this study have implemented AET initiatives, some of which have now concluded (Egypt and Cambodia), others have just recently commenced (Guinea) and the remainder are implementing on-going, long-term programs (Senegal and Tanzania). The programs vary in size and structure, with several partnering with specific local AET institutions, while others provide scholarships and training in agricultural education as a component of a larger food system program. As USAID requires all large, pilot or innovative projects or interventions to be evaluated, the implementing Missions each have had experience with monitoring and evaluation of AET projects.

The responses from the Missions to each survey question are reported below:

What prompted your Mission's investment in AET?

As previously noted, each of the Missions interviewed have recently, or are currently implementing at least one large, centrally-funded project that includes an AET component. In most instances, the development of the AET-focused project seems to have been prompted by prior engagement with and identification of a need by the local agricultural university, research institute and/or Ministry of Agriculture. For example, in Senegal, USAID have been working with the Senegalese Institute for Agricultural Research (ISRA), funding collaborative applied research for almost 20 years and it was clear there was a need for additional capacity building in the educational and research institutions. Meanwhile, the need in Guinea emerged from a democracy and governance project, during which the opportunity to provide agricultural training was identified as a potential intervention for youth. Another driving factor across all countries was the lack of an appropriately educated agricultural workforce. For example, in Tanzania, there were insufficient numbers of new PhD and Masters students being trained to replace retiring faculty. Meanwhile, in Egypt, studies of the agricultural value-chains identified a lack of workers with relevant skills, which prompted the investment in technical training programs.

What specific indicators/tools have you used to monitor progress and evaluate outcomes of AET programs/projects? Were these indicators/tools useful in documenting the impact of AET programs/projects?

All Missions indicated that they were using a combination of Feed-the-Future indicators and custom project-level indicators to track progress and evaluate outcomes of AET projects. Most projects use a combination of internal tracking, particularly of output and outcome indicators for FtF, and external evaluations. In most instances the external evaluations are undertaken by US-based contractors, while a few have utilized local evaluation providers or a combination of the two. In general, the staff at Missions do not conduct project evaluations and, at least in some cases, they do not have in-house evaluation expertise. In fact, several Mission staff were unable to discuss the types of indicators being used in the AET projects and advised us to speak directly with the project implementers.

Overall, it was clear that emphasis is on output and outcome indicators, with little mention of either input/process or impact indicators. Only one project, iAGRI, appears to be measuring institutional change indicators, though several other Missions did identify this as a gap in their monitoring and

evaluation. Also, most indicators are quantitative in nature, with little opportunity to report qualitative measures of success. The consensus across the five Missions was that the FtF indicators were not very useful in terms of documenting the progress and impact of the projects and that they all relied on the custom-project level indicators.

All Missions indicated that basic mid-term and final external evaluations were included as a standard component of a project evaluation plan. However, there were indications that these evaluations, especially the final evaluations, could take a long time to complete and such delays tended to limit their usefulness in terms of feedback to the project to make any necessary or indicated changes.

What evaluation measures were used to follow-up with program participants to track outcomes? For example, pre-post tests, follow-up interviews, gathering on-site data, etc.

In general, the AET projects discussed did not collect baseline data, nor did they have plans for follow-up with program participants or to track longer-term outcomes and impacts. Several indicated that while they would be interested in this data, it goes beyond the scope and the funding of the project. Any post-program tracking was generally left to the partner institutions in-country to pursue if they had the resources, which most did not. Furthermore, respondents indicated that there were particular challenges related to tracking program beneficiaries, even over the short- to medium-term, which would make follow-up more difficult.

Mission staff did indicate that mid-term evaluations were sometimes useful for longer-term tracking of participants, but clearly this was limited to participants from the earliest phases of the project. Several were also aware of various indices to assess capacity, but again, these were not being used in any pre-post assessments. However, in the newest AET project, in Guinea, Mission staff did discuss the intention to employ a more deliberate approach to longer-term tracking, with the inclusion of a series of skills assessments.

Can you provide examples of AET projects/programs that included successful M & E?

The staff at the individual Missions were limited in their awareness of successful approaches to AET program monitoring and evaluation. Overall, they were familiar with the evaluation approach being used for the specific AET project in their country, but even then, they did not always know which particular indicators were being used, nor the scope of the evaluation plan. Occasionally, they were also able to discuss evaluation of parallel value-chain or extension projects implemented by their Mission. However, it was not clear that there was any coordination of M & E between related projects. Moreover, Mission staff were not aware of successful monitoring and evaluation approaches for AET from other countries or regions. The Mission and project-level staff rely on external evaluation experts' knowledge of existing models of monitoring and evaluation for current projects/programs.

What challenges have you experienced in evaluating AET projects/programs?

Several challenges were mentioned by Mission respondents, including the over-reliance on FtF quantitative measures, the lack of indicators to track institutional-level or transformational changes, and local or cultural issues that stymie the collection of useful evaluation data.

As mentioned previously, there was a consensus that the FtF indicators were not very useful in tracking AET projects. While it is easy to count numbers of people trained, or courses developed, these do not provide information on long-term, sustainable change related to AET interventions. All respondents acknowledged the importance of these indicators to USAID-Washington, but did not find them helpful at the project-level. Also, with the majority of AET programs partnering directly with local institutions to build capacity and effect transformational change in agricultural education and training, the lack of appropriate indicators to measure these impacts was cited as a challenge. Respondents were able to discuss detailed observations about such impacts, often based on qualitative or anecdotal feedback from implementing teams, but there was no reporting mechanism within the FtF framework for this information.

Several respondents also mentioned the local and/or cultural challenges for conducting evaluation of projects. In some situations, the political instability and constant turnover in government and administrative positions have created inconsistencies in levels of access to stakeholder populations and permission to collect data. Additionally, evaluation can be viewed with suspicion in some cultures, even by the local partners who may not be comfortable receiving critical feedback.

How has your theory of change been validated based on the impacts that were measured?

Respondents indicated that the AET projects have contributed to their Missions theories of change in several ways. Firstly, these projects have tended to work in an integrated way, across several sectors and target populations, for example with women's empowerment and youth inclusion through technical training, or to integrate extension, education and research at different points along the value-chain. In some cases they have also served to bring together different offices and programs within the Missions, for example democracy and governance, economic growth, education and agriculture sections all have potential roles in these projects.

However, not all AET activities are clearly correlated with the theory for change and it had sometimes been difficult to assess the impact of education and training programs on the agricultural sector. In particular, it can be challenging to operationalize the results of research to production, or to find appropriate placements for more highly trained agriculture professionals.

Is there anyone else who has been actively involved in AET evaluation that you think we should talk to?

Finally we asked if there was anyone else we should contact in relation to AET evaluation. In all but one instances, we were directed to the project Chief of Party and/or the contractor responsible for external evaluation. Only the Mission in Senegal indicated that they had an evaluation expert on staff. None of these individuals were contacted for this study.

Discussion

Our research revealed that Mission investments in AET tend to be driven by a combination of local needs and USAID-Washington interests. Often the identification of these opportunities is based on anecdotal observations and correlation with US government priorities, such as the Feed-the-Future initiative and little attention is given to any type of formal needs assessment, formative evaluation or gap analyses. Thus, overall the evaluation of AET projects primarily focuses on outputs and outcomes, and to a lesser extent impacts, and there is limited measurement of baseline data, or input/process evaluation.

Each project is developed independently, with its own evaluation plan. These are implemented by a variety of US institutions and contractors, and tend to exist in isolation from other USAID AET projects and programs, either within a country, regionally or globally. There is apparently little reference to evaluation plans and indicators or results from other projects, even when these occur within the same country or region. Furthermore there appears to be very little communication between the projects with regard to effective evaluation methodologies and there are few opportunities for AET project implementers, evaluators and related Mission staff to convene and share experiences and results. As a consequence, AET program implementers usually develop new indicators, surveys, indices, etc. to measure the progress and impacts of their activities, rather than learning from and building upon the experience of previous efforts. Only in the incidence of a Mission staff member moving between countries, and bringing AET knowledge with him/her does there seem to be some sharing of information.

With regard to personnel, most projects use external evaluators (US-based), though a few did use local contractors in conjunction with US evaluators. However, the respondents reported a lack of M & E capacity in-country and, in fact, most Missions lacked trained staff in AET program evaluation.

Of course, the AET projects are all using the FtF indicators, but there was a general consensus amongst respondents that these indicators are too generic and do not do an adequate job of measuring the kinds of transformational change that the AET projects are trying to instill. FtF indicators are too output and quantitatively focused (# of courses, # of people trained, # of internships, etc.), with only a few AET relevant outcomes and/or impacts measured. Also, the AET projects are usually only a few years in duration, and do not last long enough for the effects of the education/training to be measured by the FtF outcome or impact indicators. For example, a graduate-level course will take 2 – 4 years on average, and it will be many years post-graduation when these more highly educated individuals have the ability to change agricultural policy through positions in government, or join the ranks of extension agents to help farmers increase agricultural productivity.

With the emphasis on quantitative indicators, there is no mechanism within the FtF framework for reporting qualitative data, such as the narrative analyses being conducted on some projects. Also, few, if any, indicators of change are being utilized, and in particular, there is no approved mechanism for tracking and reporting institutional or transformational change. Nor is there any mechanism for tracking the involvement of the private or government sectors in decision-making.

Finally, while most projects are conducting basic mid-term and final evaluations, none reported using pre-post tests or implementing the collection of any baseline data. Neither is long-term tracking a

common component of the AET projects, so there is no way to know how the training/education actually impacts the participants over the course of the project, or into the future. Furthermore, the long-term tracking that does occur is usually left with the local stakeholders and in many cases they do not have the resources to continue this activity. Moreover, it is difficult to track the program beneficiaries going forward and while some projects have built databases of beneficiaries, these are incomplete and are not maintained for use in long-term tracking.

Recommendations

Based on the results of this study, several recommendations have been developed:

- A suite of AET indicators should be developed and widely shared to enable consistent measurement across projects/programs. Current FtF indicators are unsatisfactory for AET evaluations.
- Appropriate AET measures, particularly process indicators and indicators for outcomes and impacts, should be integrated into the FtF framework.
- US universities can be a resource (as can other organizations like AAU, RUFORUM, etc.) to assist USAID and in-country tertiary education institutions in developing evaluation strategies.
- Overall improved communication between projects, both within countries and across regions/globally, is needed to disseminate effective evaluation methodologies and best practices, as well as share AET results.
- Training and capacity building initiatives are needed to develop local expertise in AET project evaluation, including training for local institutions.
- 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.
- Long-term tracking and outcome evaluation needs to be integrated into project design to determine sustained project impacts.