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**USAID/UGANDA EDUCATION AND RESEARCH TO
IMPROVE CLIMATE CHANGE ADAPTATION ACTIVITY
FY 2015 QUARTERLY REPORT THREE
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USAID/UGANDA EDUCATION AND RESEARCH TO IMPROVE CLIMATE CHANGE ADAPTATION

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Acronyms	
AOR	Agreement Officer's Representative
AR5	Assessment Report Number Five
CAADP	Comprehensive African Agriculture Development Plan
CAEC	Continuing Agriculture Education Center
CAES	College of Agricultural and Environmental Sciences
CAPSNAC	Regional Capacity Building for Sustainable Natural Resource Management and Agricultural Productivity under Climate Change
CCA	Climate Change Adaptation
CCD	Climate Change Department
CCU	Climate Change Unit
CEES	College of Education and External Studies, Makerere University
CHAI	Climate Change Adaptation & ICTs
CIMMYT	International Maize and Wheat Improvement Center
CLA	Collaboration, Learning, Adapting
CoCIS	Makerere University College of Computing and Information Sciences
COP	Chief of Party
DCC	Department of Climate Change
DENIVA	Development Network of Indigenous Voluntary Associations
DGGCS	Department of Geography, Geo-informatics and Climatic Sciences
DSIP	Agricultural Sector Development Strategy & Investment Plan
EAC	East African Community
EEA	USAID/Uganda Feed the Future Enabling Environment for Agriculture Activity
ECOTRUST	Environmental Conservation Trust of Uganda
FTF	USAID/Uganda Feed the Future activities
GIS	Geographic Information System
GoU	Government of Uganda
ICPAC	International Climate Predictions and Application Center
ICRAF	World Agroforestry Centre
ICT	Information Communication Technology
IITA	International Institute for Tropical Agriculture
IPCC	Intergovernmental Panel on Climate Change
LIP	Location Intelligence Platform
LOA	Life of Activity
M & E	Monitoring and Evaluation
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MAK	Makerere University
MoFPED	Ministry of Finance Planning and Economic Development
MOOC	Massive, Open, Online Course
MOU	Memorandum of Understanding
MUCCRI	Makerere University Centre for Climate Change Research and Innovations
MUST	Mbarara University of Science and Technology
MWE	Ministry of Water and Environment
NAADS	National Agricultural Advisory Services

NAPA	National Adaptation Programmes of Action
NARO	National Agricultural Research Organization
NCAR	National Center for Atmospheric Research
NDP	National Development Plan
NEMA	National Environment Management Authority
NGO	Non-governmental Organization
NORAD	Norwegian Agency for Development Co-Operation
NPA	National Planning Authority
OPM	Office of the Prime Minister
RDBM	Relational Database Management
REDD+	Reducing Emissions from Deforestation and Forest Degradation
RFP	Request for Proposals
SCALE	System-wide Collaborative Action for Livelihoods and the Environment
SFEGS	School of Forestry, Environmental and Geographical Sciences
SNA	Social Network Analysis
SOW	Scope of Work
STTA	Short term Technical Assistance
TOC	Theory of Change
ToT	Training-of-Trainers
UNAP	Uganda Nutrition Action Plan
UN	United Nations
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
USAID	U.S. Agency for International Development
USG	U.S. Government
WSR	Whole-System-in-the-Room
WWF	World Wildlife Fund

I. INTRODUCTION

Through this document, FHI 360 formally presents to USAID/Uganda the third quarterly report of FY15. The primary activities and accomplishments conducted during the reporting period from April 1, 2015 to June 30, 2015 are outlined in this report.

Summary Highlights

Highlights of activities and achievements during the quarter include the following:

- Hired a part-time web specialist to quickly build a temporary website to get MUCCRI website up and running earlier than the joint website with CCD could be available
- Development Studies core course: *Development, Energy, and Environment* now has new climate change information integrated into the course and the lead faculty member was mentored so she can offer this new information each year to her approximately 350 new students. In addition, 3 of 8 final exam questions for the course are now on climate issues and each student is required to prepare a back home action plan (BHAP) of adaptation or mitigation activities for their home villages
- One new MSc students is on board and 5 new undergraduate students have been chosen for support of their final year undergraduate research efforts
- Dissemination templates are being filled in by scientists with research results that can be shared with “boots on the ground” to reach farmers and others who will use the new knowledge

Activity Description

The overall goal of the *USAID/Uganda Education and Research to Improve Climate Change Adaptation Activity* (the Activity) is to help establish the Makerere University (MAK) Centre for Climate Change Research and Innovations (MUCCRI) as a recognized national and regional hub of academic, professional development and research excellence in climate science, climate adaptation, and related disciplines. The Activity will strategically deploy human, financial and technology resources with the target continually focused on building Ugandan capacity and proficiency to address climate adaptation and related issues. More specifically, the Activity will mobilize leading academics, scientists, and researchers to work side-by-side and in partnership with Ugandan colleagues to build upon the foundational efforts made by the College of Agricultural and Environmental Sciences (CAES) and others to date in developing and establishing MUCCRI. In so doing, MUCCRI will become a fully functional, operational, and sustainable center within MAK/CAES. The Centre will have the requisite staff, knowhow, capacity, and resources to be a sought-after location to focus and support climate and climate adaptation education and research for the benefit of the University and the Nation.

USAID/Uganda Education and Research to Improve Climate Change Adaptation Activity has the following results:

Result 1: Institutional structure of MUCCRI is established and supports MUCCRI objectives: The first step in this result area is to support the official establishment of MUCCRI at MAK. To support MUCCRI establishment, this Activity is undertaking a number of actions. It is coordinating each work plan with the CAES strategic plan. An informational campaign is being waged to increase knowledge and understanding about the science, potential impacts,

and responses from/to climate change and climate adaptation through a variety of methods – some still to be implemented. The methods include: formal and informal presentations at college/school/departmental meetings, in classrooms, and in seminars. Postings on websites, announcements in campus media, and adding modules on climate change to established courses, and other options. The Activity will work to reach both the campus community and outside of the campus through traditional media outlets. An e-learning and networking hub (Adapt2CC) is being established that will act as a linkage between and among students, staff and other interested parties to share information on climate change adaptation work throughout the region. Once MUCCRI is approved the Activity will provide timely support for establishing and functioning of both the MUCCRI Steering and Science Committees. Official approval and these committees will become the backbone of the MUCCRI institutional structure that will allow future development and the building of a resilient and long lasting Centre.

Result 2: MUCCRI provides cutting edge short and long term training to students, staff, and external stakeholders

Result 2a: Undergraduate and graduate coursework on climate change improved: The Activity supports the establishment of a suite of formal academic offerings for undergraduate through post-graduate students. Those offerings will include: a college-wide undergraduate climate change course; specialized graduate-level trainings based on the latest research findings and innovations gleaned from around the world but adapted to the Ugandan context; and a new Master of Science (MSc) program on climate change science. It will also include: collaborative teaching and learning arrangements with other parts of the university, notably with the School of Women and Gender Studies, Department of Journalism and Communication, School of Education, and School of Social Sciences. There will also be non-degree related activities such as: the establishment of an e-learning platform and networking hub with access to numerous identified online programs and an informal lecture series to introduce climate change issues to the broader university.

Result 2b: Short term training to external stakeholders provided: Over the life of this Activity (LOA), an array of short term training options and vehicles to increase climate change and adaptation knowledge for key stakeholder groups will be created. These groups are external to but linked to the university, and include select public sector institutions, civil society groups, and the private sector. Where appropriate and through agreements, trainings will be jointly designed and led by Activity staff and other partners in conjunction with academic staff and students from CAES and other MAK schools and departments as a way to create a “climate smart” institution. Training types will include: in-service training modules, webinars, policy briefs, informational packets, and presentations for various key stakeholders.

Result 3: MUCCRI is generating high quality climate change and climate change adaptation research: The Activity will strengthen the relationship between CAES, the International Institute for Tropical Agriculture (IITA), and the National Agricultural Research Organization (NARO) to conduct joint research and field trials that reflect actual demands and needs of Ugandan smallholder farmers. The students chosen to conduct the research and field trials will be jointly managed and jointly financially supported. In addition, the Activity will introduce the aWhere *Location Intelligence Platform (LIP)*. This new platform enables integration of complex environmental, agricultural and public health data into local, actionable insight. aWhere will provide technical inputs, staff, and tailored support to the Activity and link joint MUCCRI-NARO research and field trials. The aWhere platform will

also provide actionable information and weather data to support agricultural and climate research, as well as serve as an instructional and learning tool for students.

Result 4: MUCCRI is communicating with external stakeholders and disseminating climate change adaptation information: The Activity will play a facilitative role fostering collaboration with other institutions such as the National Agricultural Advisory Services (NAADS) and others to convert the student research findings to simple, understandable, cost-effective and accurate guidance. Guidance resulting from Activity supported research and other relevant information and research results will be disseminated through the most appropriate channels specifically to farmers. Dissemination efforts include: through the system of extension officers at the district and sub-county levels, relied upon/popular radio programs listened to by farmers, use, and application of information communication technology (ICT), and through community agents (trusted community individuals). Dissemination efforts will also include regular editorials and articles on adaptation, student research findings, and resilience issues in key Ugandan newspapers and other media outlets.

Year Two, Quarter Three Activity Highlights Table

Actions	Specific Actions Implemented	Description	Progress/Achievements	Remarks	Realized Output/Outcome
RESULT 1: Institutional structure of MUCCRI is established and supports MUCCRI Objectives					
Support official recognition of MUCCRI by the University	Follow-up with CAES/MUCCRI on approval process by MAK senate	Following the submission of the MUCCRI proposal to MAK senate, the Activity kept track of the progress through meetings with MUCCRI interim coordinator	MUCCRI proposal has been presented to senate and comments provided for CAES/MUCCRI/Activity responses	The proposal will be resubmitted and presented to senate for a second time after addressing the comments	Recommendation by senate for CAES/MUCCRI to consult stakeholders for inputs and opinions on MUCCRI proposal
	MUCCRI Stakeholders consultation meeting	The Activity provided financial and technical support to CAES to organize a meeting in which CAES sought opinions and comments on the proposal to have MUCCRI as a MAK-wide Centre. The meeting inputs were mainly on proposed functions and governance of MUCCRI	The meeting attracted over 40 participants and was quite successful. Inputs and recommendations to ensure that MUCCRI meets the needs of the stakeholders were generated	It was observed that stakeholders have high expectations of MUCCRI, particularly on information management	MUCCRI stakeholders unanimously recommended approval of MUCCRI by MAK as a University-wide Centre. This vote was required by the Senate to re-consider approval
MUCCRI/Activity informational campaign	Distributed MUCCRI /Activity and climate change information	Throughout the quarter, the Activity continued to provide information to demonstrate the significance of MUCCRI/Activity work. Shared information included on-going Activity engagements, MUCCRI car stickers and one-pagers for MUCCRI and the Activity. Activity compiled information on climate change was also distributed on flash disks and described in presentations and	The concept of MUCCRI has been publicized both in and outside MAK. The publicity is attracting many new potential partners for MUCCRI and the Activity e.g. Africa Climate Change Resilience Alliance (ACCRA), Uganda National Meteorological Authority (UNMA), etc.	Once the website is ready, the information campaigns will be much more effective due to the addition of a new distribution channel	There is increasing visibility, including invitations (such as to the World Bank meeting) and recognition of MUCCRI/Activity at meetings

		meetings.			
Networking with partner organizations	Participated in partnership and network building actions in and outside MAK	Participated with climate change related actions at MAK including a dissemination effort by CAPSNAC project. The Activity also worked with the REDD+ project on scholarship recruitment and training efforts. Partnership building meetings were held with CEES. Outside MAK, the Activity attended partnership building engagements with: The World Bank; The German Embassy in Uganda; CCD; MWE; other USAID funded Activities	More specific areas of partnership engagement are being developed and focused	More climate change players are gaining interest in working with MUCCRI/Activity	Growing visibility of MUCCRI/Activity

Set-up MUCCRI website with an information sharing platform	Developing a web-based information management hub	The Activity continued to coordinate the development processes of a hub for information management in partnership with CCD supported by FHI 360's TechLab and a team of IT consultants	Procurement of one of the servers for hosting the information hub has been successfully concluded and installed	MUCCRI will need to invest a lot of effort to manage the interest and demand for the envisaged services of the hub	Working with CCD through the development of the information hub is rapidly raising the strategic credibility potential for MUCCRI in information management
	Hiring a web consultant to develop MUCCRI website	Advertised and conducted interviews in partnership with MAK/CAES IT team	Consultant has been hired and started developing the website	Website expected to be ready by the end of the next quarter	Involvement of MAK/CAES IT team has enabled clarification of technical and infrastructure needs by MUCCRI for the website management and sustainability
Activity	Specific Action Implemented	Description	Progress/Achievements	Remarks	Realized Output/Outcome
RESULT 2: MUCCRI provides cutting edge short and long term training to students, staff and external stakeholders					
Result 2a: Undergraduate and graduate coursework on climate change improved					
Support for MUCCRI/CAES cross-college climate change course approval process	Follow-up on technical input for cross-college approval	Following approval and submission of the cross-cutting course entitled <i>Atmospheric Processes, Weather and Climate</i> to CAES by SFECS, the Activity, together with MUCCRI, are closely tracking the progress on curriculum review including consideration of the course for cross-CAES teaching	CAES academic board has held meetings to receive and discuss curriculum review reports from all 3 schools of the college, but no programme or course specific decisions have been made	MUCCRI coordinator is following-up on decisions by CAES particular to the course	The course has been approved and recognized in the School of Forestry, Environmental and Geographical Sciences

Support the approval process for the MSc in climate sciences	Follow-up with MUCCRI/CAES for technical support to respond to inputs from the Board of Graduate Studies and Senate	MAK has just resumed consideration for approval of new programmes following a suspension during the recent university-wide review of all programmes	Climate sciences programme hasn't been considered yet	Will continue to follow-up with the proposed programme host department and MUCCRI coordinator on approval updates	
Activity	Specific Action Implemented	Description	Progress/Achievements	Remarks	Realized Output/Outcome
Support the development of climate change content for input into MAK courses	Climate content newly included in a compulsory course on Development, Energy, and Environment offered in the The School of Liberal and Performing Arts	The proposed climate change content that was submitted to Dev. Studies department was accepted and integrated into that course teaching schedule	Activity staff prepared climate change content and model taught the content to 4 divisions of the compulsory course reaching about 350 students. The faculty now feels empowered to continue including this content in this course	This course is taught to all undergrads in the Development Studies curriculum and will reach approximately 350 students per semester–familiarizing a very large number of young Ugandans who plan to work in development. Dept now considering addnl courses for climate content adds	The students in this course were tested on the climate materials and 3 of the 8 questions on the final exam were climate-specific. They were also charged with developing Back Home Action Plans (BHAP) to address a mitigation or adaptation activity in their home villages while on break

	Meeting with the College of Education and External Studies (CEES) Principal and staff	Activity staff were invited to meet with the principal of CEES and began serious discussions around including climate presentations in many of the trainings that the department provides for teachers around the country	Activity staff proposed topics and length of time needed for various trainings that were already scheduled for the department to carry out. No specific dates for presentations were yet confirmed	There seems to be real interest in climate change topics being introduced in various trainings, but for those already planned the agenda was full. We will keep offering	
Identify and access online course offerings	Identifying and reviewing online course options and related materials	This quarter, the e-courses along with all the other collected climate materials were compiled with the additional materials that EEA was gathering for the climate change inventory they are generating with and to support the developing framework for climate change training and awareness materials for CCD	Through this cooperation, the EEA project was able to assess all the documents and characterize them as to content as well as start to build the inventory. The e-courses and all the documents collected by both activities will become a searchable data base and be housed on the MUCCRI website	The e-courses and other materials that the Activity supplied to the inventory made up at least 1/3 of the total inventory – maybe more.	Through this cooperation both activities were able to move forward more quickly than they would have separately.
Plan and offer a monthly climate change seminar/lecture	Organised and held monthly climate change seminars/lecture series for students and the public	The MUCCRI climate change lecture series continued this quarter	Two of the four lectures/seminars in this semesters' series were offered during this quarter. The topics included: <i>Climate Change Related Agriculture Research</i> and <i>Resilient Cities</i>	It is open to the public and the info is distributed via email to both on- and off-campus interested parties and fliers posted around the campus	More and more individuals are being introduced to climate issues through the seminar series and are thus becoming more aware of this critical issue
	Plan for Year Three Lecture series	The seminar series speakers for the up-coming semester have been identified and confirmed. There will be three presentations: Sept, Oct., Nov	Two of the speakers will address more in-depth and case study type agriculture issues under a changing climate and the third	There are three presentations this term to accommodate the holidays in Dec	

			speaker will address climate and gender issues		
Follow-up training and use of the aWhere Location Intelligence Platform (LIP) as an instructional and research tool	Follow-up training for students supported by the Activity on the use of aWhere knowledge and skills in their studies/research	Three-day training by the aWhere team was organized and conducted from 14 th to 16 th April. The training focused on the aWhere data library, data management and data cleaning, and the aWhere Weather Terrain Database	12 individuals were trained including one-on-one sessions to address individual graduate students' aWhere research application needs	Follow-up, and additional support, training and resources will be provided as necessary.	Great step in getting students more comfortable interacting with aWhere platform features and thinking critically about how these tools should be used in their projects
Activity	Specific Action Implemented	Description	Progress/Achievements	Remarks	Realized Output/Outcome
Result 2b: Short term training to external stakeholders					
Design and develop short term training efforts	Training for university students	Follow-on work with student participants from the Climate Change Boot Camp to develop their outreach materials – products from the teaching effort	The student groups from the Boot Camp are continuing to meet and develop outreach materials as a result of the training effort. Activity staff are advising and reviewing outreach products as well as providing materials for the products and connections to where they can be utilized	We are delighted to find that about 1/3 - 1/2 of the students who participated in the Boot Camp are still working together to develop materials that they can use to teach others what they have learned.	It is clear that a number of the students are quite devoted to the concept of reaching out to younger students and are still working on their outreach efforts. Activity staff have made connections between the students and others e.g. Peace Corps as PC work with teachers and can facilitate the college students to work with younger students
	Climate change awareness/trainings for MUCCRI/Activity stakeholders	Activity staff along with representatives of 3 FtF activities began planning a training effort, called Climate Champions, for	The program plan is established, the individuals have been identified and communicated with, the	The goal is to prepare district representatives to better understand	

		representatives from 8 of the districts where the FtF activities work	additional speakers are being invited and confirmed. The program will begin next quarter with ~ 40-50 champions being developed in the first 2-day training effort – to be followed by 1 day per month trainings for the next 4 months	about and know how to plan for adaptations and mitigations around a changing climate	
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Activities	Specific Actions Implemented	Description	Progress/Achievements	Remarks	Realized Output/Outcome
RESULT 3: MUCCRI is generating high quality climate change and climate change adaptation research					
Support student research in cooperation with IITA/NARO	Technical and financial support to students	The Activity and IITA/NARO continued to work with MUCCRI and MAK faculty to meet partnership obligations of providing research technical guidance to students who are jointly funded. The Activity has also been involved in financial administration of stipend and tuition fees payments to the students	All MAK admitted students are progressing well with their research activities at various levels of proposal development, data collection and reporting	One PhD student has not received admission from MAK and therefore is not yet receiving financial support from the Activity	The research partnership is raising interest from other potential partners to work with MUCCRI on other research efforts
	Coordination of the research efforts with partners	The Activity technical team continued to invest time in ensuring that the research partnership roles are implemented in a coordinated way. This involved follow-up with partners to meet planned targets and participation in scheduled	Planned engagements for the quarter, such as project management meetings and student progress monitoring, are progressing well	The next project coordination and management meeting will be held on 10 July 2015	This partnership is providing opportunities for MUCCRI to learn lessons for research coordination that can be applied to other research activities

		partnership engagements			
	Recruitment of MSc students for Year Two of the Activity	Working with all the partners, advertisement was done in April and interviews conducted in May for 2 planned MSc student scholarships	One student to conduct research on crop modelling has been recruited. The search for the other MSc student will continue as none of the applicants were appropriate for the 2nd theme.	The new MSc student will present his concept to the partners at the next management meeting on 10 July	There is overlap now with the Yr 1 MSc students and the Yr 2 MSc students – as the Yr 1 students started late.
	Technical support to undergraduate multidisciplinary research effort	The Activity, in liaison with MAK faculty, continued to support and coordinate undergraduate students recruited at the beginning of Yr Two to undertake multidisciplinary research activities including data entry, analysis and dissertation writing	The Activity organised a presentation in which the students shared their experiences with other students. The supported students have completed most of their data entry and data analysis and are proceeding with different stages of dissertation writing	Working with undergrads takes a great deal of time/effort as they have little to no research experience and understand a limited amount about how to do research => why this experience is so important	The students are providing a basis for demonstrating the importance of multidisciplinary research at the undergraduate level
	Identify and recruit undergraduate students for Year 2 research scholarships	Applicants were invited for undergraduate multidisciplinary efforts. Interviews of all applicants were held in the months of April and May	Sixteen students expressed interest in the research opportunity – some as teams and some as individuals. Five students have been selected for support. The research activities will start in September 2015, with training and project planning	Through the interviews it was observed that pre-research training on climate issues should be conducted for the students to have clarity of purpose and to better understand what they are doing and why	Through the process of recruiting the students, it was observed that there is growing interest in the undergraduate research effort by both staff and students

Activity	Specific Actions Implemented	Description	Progress/Achievements	Remarks	Realized Output/Outcome
RESULT 4: MUCCRI is communicating with external stakeholders and disseminating climate change adaptation information					
Disseminating research results – developing a dissemination pathway	Pilot “translation” template is being implemented	Generating filled-in templates for step 2 in the dissemination process (step 1 is research findings being generated; step 2 is using the template to translate those findings to lay language; and step 3 is to put the information on the web and send out notices that new info is available) for the website and for sharing when the website is ready to launch	A new science graduate was hired to begin to generate and collect filled templates from the scientists at MAK. This has been a slow process because everyone is “busy”. The student has started taking the research results and drafting template messages for scientist review and approval.	If we cannot get the researchers to fill in the forms themselves and send them to the website then this form of dissemination is probably not sustainable for MUCCRI in the long run	The Activity is beginning to achieve some filled templates that will be among the first results that are shared with the “boots on the ground” disseminators

II. ACTIVITY REPORT

Result I: Institutional Structure of MUCCRI is Established and Supports MUCCRI Objectives

Support official recognition of MUCCRI by the University

- Follow-up with CAES/MUCCRI on approval process by MAK senate

The Activity assisted CAES staff in responding to comments and questions from the University Senate on the possibility of approving the MUCCRI proposal. One of the specific actions that the senate requested was a stakeholder meeting to gauge the support of a wide range of stakeholders – within and outside the university – for the approval of a university-wide MUCCRI. The Activity assisted in the development of the invitees list – including many potential partners for MUCCRI that the Activity has developed; the staff also assisted in the development and carrying out of the agenda for the day-long meeting, as well as supporting the meeting costs. More than 40 individuals across multiple departments at MAK, the UNFCCC regional office, NGOs/CSOs, the media, and the CAES communications officer, to name some specific categories, actively participated and unanimously voted to ask for approval and to re-submit the Centre proposal to the University Senate.



Participants for the MUCCRI stakeholders meeting held on 4th June 2015

MUCCRI/Activity informational campaign

- Distributed MUCCRI /Activity and climate change information

An on-going effort for this Activity is the distribution of climate and MUCCRI-related

information in multiple formats (1-page fliers, flash drives, verbally, in presentations, stories and other media). There is a great deal of interest in the knowledge management system that will be a part of the MUCCRI effort along with CCD and this alone is drawing a great deal of attention to the possibility of a university-wide MUCCRI.

Networking with partner organizations

- Participated in partnership and network building actions

The Activity participated in a number of climate change related actions at MAK, including a research dissemination effort by Regional Capacity Building for Sustainable Natural Resource Management and Agricultural Productivity under Climate Change (CAPSNAC) project. CAPSNAC project is being led by a team of scientists from CAES, who are collaborating with the Addis Ababa University (Ethiopia), University of Juba (Southern Sudan) and the Norwegian University of Life Sciences (Norway). The Activity also worked with the REDD+ project on scholarship student recruitment and training efforts in which awareness on linkages between REDD+ and other climate change response actions is being raised to individuals and organizations targeted by both projects. Partnership building meetings were held with CEES specifically on possibilities of supporting the college with climate information for courses offered.

Outside MAK, the Activity also participated in other partnership building engagements with the World Bank as an advisor to their effort to develop a documentary on climate adaptation in Uganda. The documentary, which has been distributed to a wide audience, acknowledges MAK/MUCCRI's contribution to that effort. The World Bank also requested MUCCRI/Activity to participate in reviewing a climate change profile document for Uganda that they have developed in partnership with CCD. Following the participation of the Activity technical staff, the World Bank further requested the Activity climate adaptation specialist to present the profile during a climate change forum that was organized by the Ministry of Water and Environment (MWE) and the World Bank. The presentation was prepared and offered during the forum that was attended by a wide range of organizations and individuals. During the meeting, MWE and the forum master of ceremonies at the meeting acknowledged the MUCCRI/Activity contribution. During the quarter, the Activity played an advisory role to the Peace Corps Resiliency Task Force meeting. The Activity was also represented at a meeting involving various climate change related presentations organized by the German Embassy in Uganda entitled "Climate Diplomacy Day". As recognized partners, the Activity/MUCCRI were invited by CCD to attend an opening ceremony of their new resource center. The Activity participated in other partnership meetings with other USAID funded activities among others.

Set-up MUCCRI website with an information sharing hub

- Developing a web-based information management hub

The Activity continued working with the Climate Change Department (CCD) (Uganda's national climate change coordinating entity) at the Ministry of Water and Environment to develop an information management hub. The process of accomplishing this task has been

slowed down by significant procedures required by this partnership effort. However, progress was made during the quarter, including procurement by CCD of one of the required servers for hosting the information hub. The server has been successfully installed for the same purpose. Through the coordination meetings for the establishment of the hub, the Activity recognizes that there is high demand for the information services expected to be provided by the hub. The high expectations from the hub by various stakeholders will require MUCCRI to invest a lot of effort to manage the interests and demands for the envisaged services. The partnership opportunity with CCD through the information hub development process is rapidly raising and demonstrating the strategic leadership potential for MUCCRI in information management.

- Hiring a web specialist consultant to develop MUCCRI website

The original plan was to concurrently develop an information sharing hub that includes both the website with a wide range of information sharing platforms. However, due to the urgent need to have a website for raising the visibility of MUCCRI and the Activity, it was decided that an interim website, that will later be integrated with the overall information sharing hub, should be quickly developed. As such, the Activity advertised for a consultant to develop the website. During the quarter, the consultant was recruited through a rigorous recruitment process that attracted 19 applicants. The Activity recruited the web specialist consultant in partnership with MAK/CAES IT personnel who are expected to run the website both during and after the conclusion of the Activity. Involvement of MAK/CAES IT team enabled clarification of technical and infrastructure needs by MUCCRI for the website management and sustainability.

Result 2: MUCCRI Provides Cutting Edge Short- and Long-term Training to Students, Staff and External Stakeholders

Result 2a): Undergraduate and Graduate course work on climate change improved

Support MUCCRI/CAES cross-college climate change course approval process

- Follow up discussions on technical input for cross-college course approval

Following the approval and submission of the cross-cutting course entitled *Atmospheric Processes, Weather and Climate* to CAES by SFEGS, the Activity together with MUCCRI are closely tracking the plans for the college to consider the course for cross-CAES teaching. SFEGS submitted the school approved course to the college (CAES) level for consideration as one of the cross-CAES courses. The CAES academic board has already held meetings to receive and discuss curriculum review reports from all 3 schools of the college including those submitted by SFEGS, but no programme and course specific decisions have been made at the moment. The Activity will continue to work with the MUCCRI coordinator to follow-up on decisions by CAES for the course. In case of comments from the college that require technical inputs, the Activity will through working with MUCCRI provide technical support to address the comments. The course has been approved and recognized in the school of Forestry, Environmental and Geographical Sciences and will officially be taught through the school as a cross-cutting course.

Support the approval process for the MSc in climate sciences

- Follow-up with MUCCRI/CAES for technical support to respond to inputs from the Board of Graduate Studies and Senate

While the Activity/MUCCRI is prepared to follow-up on technical content recommendations by MAK senate on the MSc programme, the consideration for approval of the programme has not happened yet. The delay to the programme consideration for approval was mainly due to a university-wide decision to suspend approval of new programmes until the completion of the on-going university-wide curriculum review. The university senate has just resumed consideration for approval of new programmes. The proposed climate sciences programme that was submitted by CAES hasn't been considered yet. The Activity/MUCCRI will continue to follow-up with the proposed programme host department and senate on the approval progress.

Support the development of climate change content for input into MAK courses

- Climate content newly included in a compulsory course on *Development, Energy, and Environment* offered in the Development Studies Department in the School of Liberal and Performing Arts

The previously proposed climate change content that was submitted to the Development Studies department was accepted and integrated into the teaching schedule for the above named course. Activity staff prepared climate change content and model taught that content to three of the four divisions of the compulsory course, the faculty taught the final group, thus reaching about 350 students with new climate content. Through mentoring discussions, observing the model teaching, and being provided climate content and connections with other material in the course, the faculty member felt empowered to teach the fourth unit and to continue including this content in this course. Three of the eight final exam questions for this course were on climate content and as a part of their course work each student is now required to develop a Back Home Action Plan (BHAP) that will address a mitigation or adaptation action for their home villages.

Towards a sustainability goal: this course is taught to all undergraduate students in the Development Studies curriculum so this climate and development content and BHAPs will reach approximately 350 students per semester. This new content will familiarize a very large number of young Ugandans who plan to work in development and help them to realize that every energy decision they make for their development projects will either make the climate change problem better or worse for the following generations. The Department Chair and particularly the faculty that was mentored and assisted to improve this course are so convinced about the seriousness of the issue that the department is now organizing for next quarter (July) a curriculum review of an additional seven departmental courses for consideration of climate content additions. The faculty wrote a "note" on the impact of this new information that is attached as an addendum.

- Meeting with College of Education and External Studies (CEES) Principal and staff Activity staff were invited to meet with the principal of CEES and began serious discussions around including climate presentations in many of the trainings that the department provides for teachers around the country. Activity staff proposed topics and length of time needed for various trainings and dates were held as possibilities of adding climate presentations to

already scheduled meetings were reviewed and considered. There seemed to be real interest in climate change topics being introduced in various trainings, however, for those events already planned the agenda was full. We will keep in touch with this department and continue to offer presentations and trainings on climate issues.

Identify and access online course offerings

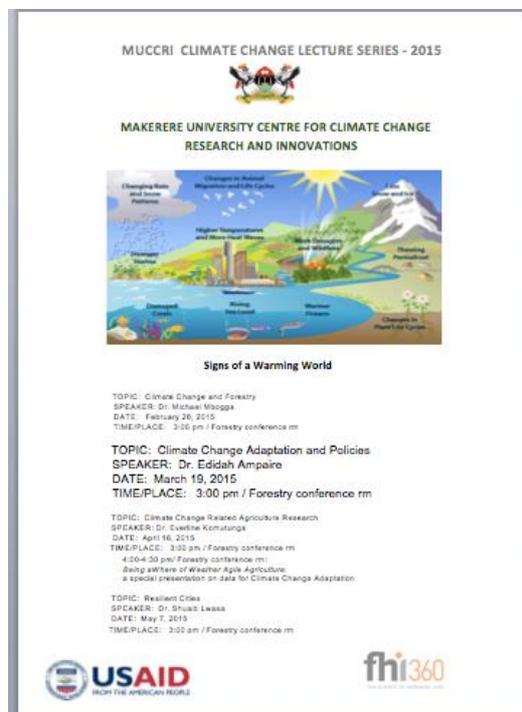
- Identifying and reviewing online course options and related materials

This quarter, the e-courses, along with all the other collected climate materials (documents, reports, videos, webinars, websites, etc.), were compiled and shared with EEA. This effort represents a starting point for the climate change inventory they are assembling for the CCD resource effort specifically to support the development of a framework for climate change training and awareness materials. Through this cooperation, the EEA project was able to assess all the documents and characterize them as to content as well as start to build the inventory. The e-courses and all the documents collected by both activities will become a searchable database and be housed on the MUCCRI/CCD website. The e-courses and other materials that the Activity supplied to the inventory made up at least 1/3 of the total inventory – maybe more. Through this cooperation, both activities were able to move forward more quickly than they would have if they had worked on the effort separately.

Plan and offer a monthly climate change lecture series

- Organised and held monthly climate change seminars for students and the public

The MUCCRI climate change seminar series continued this quarter. Two of the four lectures/seminars in this semester's series were offered during this quarter. The topics included: *Climate Change Related Agriculture Research* and *Resilient Cities*. The seminar series is open to the public and the information on the topic/day/time is distributed both via email to on and off campus individuals who have participated with us in some training effort, awareness lecture, or through a partnership effort and have asked to be added to the mailing list as well as through printing and distributing fliers around the campus to a wide variety of departmental bulletin boards. More and more individuals are being introduced to climate issues through the seminar series and are thus becoming more aware and knowledgeable of this critical issue. The fliers for the seminar series are using a standard form and pictorial to establish them as specifically recognizable as the MUCCRI Lecture Series announcements – helping to make MUCCRI more recognized on the campus. However, to be sure the readers understand that each time the fliers are put up they are announcing a new lecture, the topic of that month is bold and larger type and the background paper is variously colored.



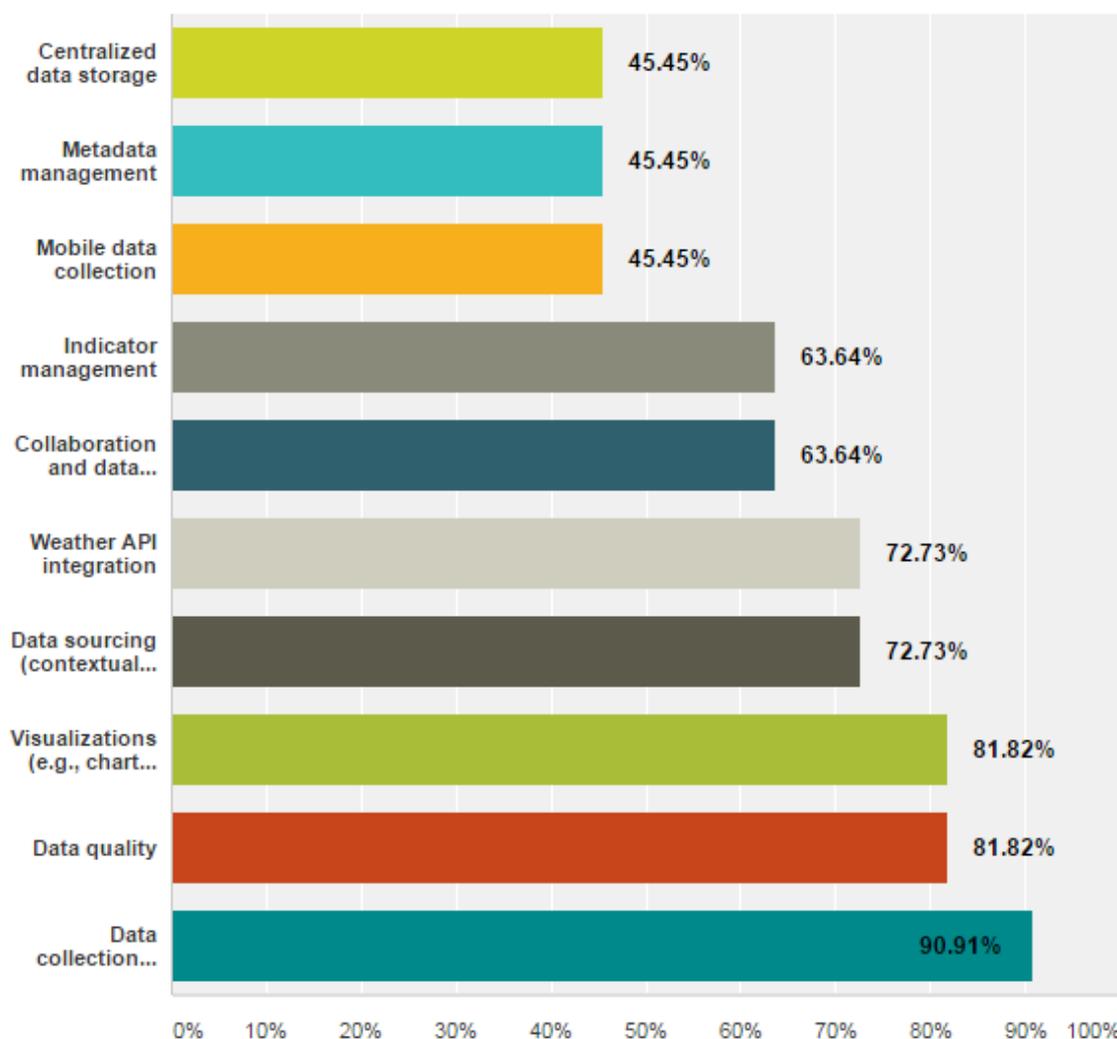
- Plan for Year Three Seminar Series

The seminar/lecture series speakers for the up-coming semester have been identified and confirmed. There will be three presentations: September 17, October 15, and November 19. Two of the speakers will address in-depth/ case studies in agriculture issues under a changing climate (e.g. coffee growing moving upslope on Mt Elgon) and the third speaker will address climate and gender issues. Experience has taught us to offer the seminar series when the university is in session and not too close to finals – because the turnout is quite low during non-school and finals time frames. So there are three presentations this term to accommodate the holidays and finals in December.

Follow-up training and use of the aWhere Location Intelligence Platform (LIP) as an instructional and research tool

- Follow-up training for students supported by the Activity on the use of aWhere knowledge and skills in their studies/research

The Activity, in partnership with aWhere Inc., organized a three-day training that was conducted from 14th to 16th April. The training was preceded by a capacity needs assessment exercise to establish the areas in which students needed training about the aWhere platform.



Data management interests expressed by the trainees before the training

The aWhere training was customized to the students' individual research objectives. Further, the twelve participants who attended the training are expected to consider how the aWhere tools and services can be utilized in the different stages of their research projects. The training focused on aWhere Data Library, data management and data cleaning, and the aWhere Weather Terrain Database. The training involved use of the data that were collected by the Activity supported students with field technical support and coordination by IITA. Prior to the training, the Activity/IITA shared baseline data with aWhere that was cleaned and loaded into the aWhere Data Library for the purposes of demonstration and training exercises. aWhere also designed customized data cleaning and data loading exercises using the baseline data for use during the training.

Along with the training, participants were provided with best practice guides and comprehensive instruction manuals on Excel spreadsheet requirements, loading and analyzing data, using third party datasets in the aWhere Data Library, and using the aWhere Weather Terrain Database. Participants also received exercises to enable them to practice using these features on their own. The purpose of this hands-on training, along with the training material provided, and continued support from the aWhere trainers is to build the capacity of training participants. The training is considered a success when these participants can readily import spreadsheets of data, monitor real-time data flows, integrate and visualize data, and publish and share results. The training feedback survey results are shown in Annex C. The expected outcomes of this training partnership are an improvement in data quality and management, interoperability of MUCCRI data across other platforms or databases.

Result 2b): Short term training to external stakeholders provided

Design and develop short term training effort(s)

- Training for university students: Climate Change Boot Camp Follow-on Activities
Activity staff have supported follow-on efforts with student participants from the Climate Change Boot Camp held last quarter. Numerous of the students in the various groups from the Boot Camp are continuing to meet and develop outreach materials as a result of the training effort. Activity staff are advising and reviewing outreach products as well as providing materials for the products and connections to where they can be utilized. Between 1/3 - 1/2 of the students who participated in the Boot Camp are still working together to develop materials that they can use to teach others what they have learned. It is clear that a number of the students are quite devoted to the concept of reaching out to younger students and are thus still working on their outreach efforts. Activity staff have made introductions between the students and others e.g. Peace Corps as PC work with teachers and can facilitate the college students to work with younger students. This is likely to be an on-going effort as the students find activities they want to "Ugandanize" and prepare to offer to others are teaching/learning tools.

- Climate change awareness/trainings for MUCCRI/Activity stakeholders
Activity staff along with representatives of three FtF activities began planning a training effort, called Climate Champions, for representatives from eight of the districts where the FtF

activities work: Kasese, Mbale, Luwero, Lira, Gulu, Isengiro, Iganga and Masaka. Each of the FtF activities will invite one person from each district, plus the NARO district specific climate champions, a few representatives from nationwide CSOs and a few media persons. The hoped for impact is to leave a legacy of climate champions with increased capacity to support a better prepared Uganda in relation to reducing the speed and magnitude of climate changes and coping with the impacts. The participating regions and/or districts would have an increased ability to prepare for and cope with climate changes. It is envisaged that the climate change champions will serve as community based information connection points through which information can flow in and out of their respective communities.

The concept has been developed and the criteria for selecting the champions includes – each individual needs to be: passionate about wanting to know more about climate change, an information disseminator, and someone with influence in their district. The team has drafted a program plan, the district individuals have been identified and represent a wide range of sectors. The program will begin next quarter with ~ 40-50 individuals who want to become climate champions. The first two-day training effort will take place in July – 8 & 9 in Entebbe to be followed by one day per month trainings for the next four months. The goal is to prepare district representatives to better understand about and know how to plan for adaptation and mitigation actions as responses to a changing climate. To support the idea of sustainability of this network of champions, the Activity is involving the CCD who has a responsibility to support and know about all the climate activities in the country as well as the NARO climate champions who have agreed to work in each of the districts and offer support to the district network of climate champions.

Result 3: MUCCRI is Generating High Quality Climate Change and Climate Adaptation Research

Support student research in cooperation with IITA/NARO

- Technical and financial support to students

The Activity and IITA/NARO continued to work with MUCCRI and MAK faculty to meet partnership obligations of providing research technical guidance to students who are jointly funded. The Activity has also been involved in financial administration of stipend and tuition fees payments for the students. All MAK admitted students are progressing well with their research activities, as described in their monthly reports, and are at various levels of proposal development, data collection and reporting. One PhD student has not received admission from MAK, for university technical reasons not because she is not qualified, and therefore is not yet receiving financial support from the Activity although she is moving forward with developing her research concept into a full proposal. This delay could become an issue over time of whether this student will be able to complete her work in the timeframe that corresponds to the period of performance of the Activity.

The research partnership is raising interest from other potential partners to work with MUCCRI on other research efforts. One example is the invitation from Africa Climate Change Resilience Alliance (ACCRA) with whom the Activity technical team has had meetings including discussions on how to partner with them to develop a climate change

research agenda for their organization. They have also expressed interest in working with the Activity and /MUCCRI/MAK to undertake research on gender and climate change.

- Coordination of the research efforts with partners

The Activity technical team continues to invest time in ensuring that the research partnership roles are implemented in a coordinated fashion. This involves follow-up with partners to meet planned targets and participation in scheduled partnership engagements. Planned engagements for the quarter, such as project management meetings, interviews for new students, and student progress monitoring, are progressing well. The next Activity coordination and management meeting will be held on 10 July 2015. Through the meetings funding expectations have continued to be clarified to avoid financial conflicts (e.g. overspending on research efforts). The partnership engagement has continued to provide opportunities for MUCCRI to learn lessons for research coordination that can be applied to other future research actions. For example, in the current research partnership arrangement MUCCRI is leading the students' research and training engagements at the university and linking the students progress and inputs to the research actions of the partners (NARO and IITA). From such engagements, coordination relationships and experiences that are vital to the proposed functions of MUCCRI are being developed. It is anticipated that these will be vital in building the reputation of MUCCRI to work and coordinate research actions with the current and other research organizations.

- Recruitment of MSc students for Year Two of the Activity

Working with all the partners, advertisement were placed in April and interviews conducted in May for 2 new planned MSc student scholarships. One student to conduct research on crop modelling has been recruited. The search for the other MSc student will continue as none of the applicants were appropriate for the second theme. The new MSc student will present his concept to the partners at the next management meeting on 10 July. There is overlap now with the Activity Yr 1 MSc students and the Yr 2 MSc students – as the Yr 1 students started late.

- Financial and technical support to undergraduate multidisciplinary research effort

The Activity, in liaison with MAK faculty, continued to support and coordinate undergraduate students recruited at the beginning of Yr Two to undertake multidisciplinary research activities that follow the field work. Those activities included: data entry, analysis and drafting their individual dissertations that will need to be approved by their MAK faculty from their respective departments. The Activity organised a presentation in which the funded students shared their experiences with other students interested in applying for research funds for the next year's effort as an introduction to the concept of undergraduate multidisciplinary research. The supported students have completed most of their data entry and analysis and are proceeding with different stages of dissertation writing. This pilot effort, and these students, are providing a basis for demonstrating the importance of multidisciplinary research at the undergraduate level. These students looked at the question of: how well do farmer field schools in Kiboga region help farmers to adapt to climate change? The students all looked at this issue but with their own departmental perspectives – communication, gender, science (forestry). They will be required to develop a synthesized document from their three individual reports to deliver to the Activity for their scholarships.

- Identify and recruit undergraduate students for Year 2 research scholarships

The call for undergraduate research applications began with a public session where the potential for undergraduate research support/scholarships was introduced and explained and the previous undergraduates described their research experiences under this new scholarship opportunity. Applicants were invited to propose undergraduate multidisciplinary topics in both teams and as individuals. All applicants were invited for interviews during April and May. Sixteen students expressed interest in the research opportunity – some as teams and some as individuals. Five students have been selected for support. The research activities will start in September 2015, with training and project planning.

Through the interviews, it was observed that pre-research training on climate issues should be conducted for the students to have clarity of purpose and to better understand what they are doing and why. We will begin to hold monthly meetings with the students and suggest that they be sure to participate in the lecture series as well to increase their understanding of the issues and concerns around climate change. Further, as a result of the recruiting process for the students, it was observed that there is growing interest in the undergraduate research effort by both staff and students as a number of the applicants were able to have pre-approved suggested departmental advisors on their applications for the scholarships.

Result 4: MUCCRI is communicating with External Stakeholders and Disseminating Climate Change Adaptation Information

Disseminating research results-developing a dissemination pathway

- Pilot “translation” template is being implemented

A recent science graduate was hired to begin to generate and collect completed templates from the scientists at MAK. Generating filled-in templates is step two in the dissemination process (step one is research findings being generated; step two is using the template to translate those findings to lay language; and step three is to put the information on the web and send out notices that new info is available). In order to disseminate new research findings in a useful and understandable way the templates need to be filled-in from research results and be ready for the website and for sharing when the website is ready to launch. This has been a slow process as the scientists are still learning the importance of being able to disseminate their findings to non-technical audiences and they are all quite busy. The student has started taking the research results and drafting template messages for scientist review and approval.

If the Activity cannot get the researchers to fill-in the forms themselves and send them to the website then this form of dissemination is probably not sustainable for MUCCRI in the long-run as it will require a full-time, or at least part-time position, to keep the information coming in which is required in order to have the information ready to share to with the “boots on the ground” disseminators. We are receiving some completed templates and will continue to push the research communities – from IITA, NARO, MAK and others to fill-in the templates to better share their research results. It is likely that once the researchers “see” that their work is being shared widely they will begin to value this effort and contribute more easily.

III. COLLABORATING, LEARNING, AND ADAPTING

The Activity is constantly collaborating, learning and adapting and at the same time thinking about sustainability of MUCCRI once the Activity is completed. From the various collaborating actions there are specific lessons and a growing understanding that support the long-term perspective and the short-term undertakings. The original ideas and events are being adapted and are considered for both short- and long-term success if appropriate. The following are some of the lessons that have been learned and the changes to the plans that have been undertaken this quarter. Examples of CLA include:

Result Area 1 (supporting MUCCRI): Through our collaboration with CCD, we are seeing that the movement toward getting the web-based information hub up and running is slow. So we have undertaken a “plan B” by hiring a web specialist who will develop a “temporary” website that can be utilized for the short term so we can test the dissemination pathway and begin to house the templates of new information for sharing. This provisional website will be merged into a more elaborate information hub when it is ready to come on line. The web-based information management hub is being developed in collaboration with the CCD and as such we believe that it is critical for MUCCRI sustainability to be connected to and support the CCD nationwide effort of making information available.

Result Area 2 (education and training): Providing a short-term training effort is only the first step in working with anyone to build his or her ability to share climate information/knowledge. It is apparent that we need to devote considerable and continued time and effort with the still interested Boot Camp students to help them to become able to discuss climate change issues and eventually to be able to work with younger students – one of their main goals in participating in the Boot Camp training effort. Regular technical follow-up is critical to being able to implement this new information and it takes time and effort on the part of Activity staff to move the students and their information to a point where they can share. If this follow-up is not undertaken, the students may know more themselves but they cannot share or actually even apply the climate information in real world settings.

Result Area 3 (supporting student research): During the interview process for students, it became apparent that many of the undergraduates that we want to support for multidisciplinary research efforts focused on climate adaptation will need more intensive and personal education around climate change and how to respond to it in order to understand their research and develop appropriate questions. Accordingly, we have decided that students who want to apply for future undergraduate support for research efforts will need to participate in a regular series of trainings that the Activity staff will offer each month as well as to participate in the climate change lecture series - all with the goal of increasing their knowledge around climate issues and the possible responses so they can undertake their research more knowledgeably.

Result Area 4 (disseminating information/results): We are learning that scientists, while they desire that their research results are shared, believe it will occur with minimal intervention from their end. We have invited individuals to fill-in the template for sharing (dissemination pathway step two) and have come up against resistance just from the time required. We are now supporting a new graduate from MAK to go around and help the MAK scientists to fill in the template the first time so they see how easy it is to do. We are also asking for help from the Director of NARO and will ask the leaders at IITA to also encourage their scientists to take part in this dissemination effort. Perhaps some pressure from the top will

show the scientists how important this sharing/dissemination of their work is to sustainability and usability of research efforts and findings.

Monitoring and Evaluation Indicators

One of the Annexes to this document is the M&E table for Year 2. Any activities that are assessed will be indicated there as to progress achieved each quarter towards the annual targets. However, the method and timing of monitoring and reporting is undergoing a revision as many of the actions undertaken are requiring a great deal longer to completion than originally considered. There are often many steps in the completion process for many of the targets of the Activity over which the Activity itself has little to no direct or complete control. For example, the approval of MUCCRI as a University-wide centre is not an Activity approval process but rather a University approval process that needs to be undertaken and guided by MAK and its established procedures. So many of the efforts of this Activity should more appropriately be reported as steps in a process toward a goal and maybe on an annual basis not a quarterly basis.

Another issue for example could be around the timing of expectations for peer-reviewed papers from Activity supported student research efforts. No research findings can be written up and submitted for peer-review until many steps have been accomplished. Each of those steps is progress and movement toward the goals but in fact cannot be expected until long after the start of the process and over which the Activity may have little or no direct control. These are some of the steps that would need to be accomplished to have a result of a peer-reviewed article for Activity-supported student research efforts even submitted for acceptance and publication: the students need to be recruited, interviewed and chosen by the Activity and partners, accepted by the University as students, approved for their planned research, advised by University faculty, the research must be undertaken – could require two growing seasons for example, then the data collected, then the data processed, the dissertation written and approved and only then could there be a peer-reviewed paper even submitted. Such a process and steps that the Activity does not control the timing of could not result in even a submission of a paper before the completion of Year 3 at the earliest and many such publications may not come out until after the Activity is completed. There will likely be a number of Activity-supported research publications that will acknowledge the Activity and USAID even after the Activity is completed.

So the M&E plan is being revised to better reflect the process nature of this Activity rather than a specific timed series of targets. Each step of a process accomplished reflects progress and movement toward the ultimate targets. Sustainability is one of the outcomes of this very process-oriented effort, for example: once faculty have been trained and mentored and supported so they feel empowered to teach about climate issues for example, then the changes that have taken place in what and how it is taught will likely continue to be felt in the new graduates and how the university helps to shape Uganda going forward.

IV. UPCOMING EVENTS

- July 8 & 9: Climate Champions first two-day training
- July 10: Quarterly Activity research partners meeting on students' progress and harmonization of support
- July 22: Graduate student follow-up meeting
- August 14: Climate Champions first one-day in-depth training
- September 17: First lecture in the MUCCRI lecture series: Coffee on Mt Elgon
- September 17: First undergraduate session on climate information for scholarship winners
- September - date TBD: Climate Champions second one-day in-depth training

V. ADDITIONAL OBSERVATIONS/ISSUES

The technical staff of the Activity participated in the Community-Based Adaptation (CBA 9) international meeting in Kenya at the end of April. The concept of community-based adaptation (CBA) recognizes that environmental knowledge, vulnerability, and resilience to climate impacts are embedded in societies and cultures. This means the focus needs to be on empowering and supporting communities to take action based on their own decision-making processes. The Activity is supporting MUCCRI in proposing that the CBA II conference be held in Kampala, in April, 2017.

The reasoning behind this idea is: Uganda is already being impacted by a changing climate and is taking actions involving a wide range of local communities responding to different impacts including floods and drought. Bringing this conference to Kampala in 2017 will allow sharing of knowledge from around the world with local Ugandan communities more directly than ever before and at the same time showcase Uganda's forward looking policies and actions so they can be lessons for others. Having this conference co-sponsored by MUCCRI – will also highlight the Centre in the eyes of the world as a serious research and dissemination focused centre for climate information for the country and the region and significantly support Result area I in supporting MUCCRI for long-term resilience and deep-rooted success. While the Activity is suggesting this effort, it will NOT be the host of the conference – that will be MAK/MUCCRI and GoU. The Activity staff will only act as the “boots on the ground” for the organizers who are located in Bangladesh and London. An entire concept note for this idea has been developed and the Activity will support MUCCRI to move forward in garnering the support needed for the invitation from the GoU. Current practice for the CBA conference is for the government of the host country to invite the conference to be held in the country. Without that support the conference will not take place in a specific location.

VI. CONCLUSION

Now that the Activity has numerous educational efforts underway, it is becoming more and more obvious that just a one-time training is not enough for individuals to move forward and share their new knowledge widely. There needs to be frequent follow-up support and reinforcement of what was learned in the initial training. We are noticing that a great deal of time and effort is needed and being allocated to support building true, long-lasting capacity in

those who are serious about wanting to know and understand about climate change. The Activity, along with three of the Feed the Future activities, are beginning a Climate Champions training effort with representatives from eight of the districts and they too will require follow-up and further training on a regular basis. For most people, this is a relatively new issue and to be able to proficiently choose correct options and responses requires a deeper understanding that comes only with time and attention to the issue. The long-term sustainability of this new knowledge will be greatly improved through attention to follow-up efforts.

VII. ANNEX

A. Monitoring and Evaluation Indicator Table for Year Two

B. Brief Report on the Integration of Climate Change in Development Studies Curriculum

C. aWhere Training Feedback Results

Annex A: Monitoring and Evaluation Indicator Table for Year Two

Indicator Name & Number	Target YR 2	Quarter One	Quarter Two	Quarter Three	Quarter Four	Year 2 Total	Notes
<i>Result 1: Institutional structure of MUCCRI is established and supports MUCCRI objectives.</i>							
Support Recognition of MUCCRI w/in and outside University MUCCRI approved and established by University Senate	Phase 2: MUCCRI Approved and Instituted	Decision still with University Senate	Decision still with University Senate	University Senate requested a stakeholder mtg and it was held and other questions responded to			
(2) MUCCRI Steering and Science committees (cmts) established (estbl'd) and functioning	Phase 1: 2 committees estbl'd one mtg held Baseline functionality estb'd	Cannot happen until MUCCRI is officially instituted	Cannot happen until MUCCRI is officially instituted	Cannot happen until MUCCRI is officially instituted			

(3) Website: planned, established, usage (hits per month)	Phase 2: Website online and active	Collaborative development work with CCD still on going	Collaborative development work with CCD still on going, 1 server on order	New web designer hired and 1 server received and in place			
Indicator Name & Number	Target YR 2	Quarter One	Quarter Two	Quarter Three	Quarter Four	Year 2 Total	Notes
<i>Result 2: MUCCRI provides cutting edge short and long term training to students, staff, and external stakeholders</i>							
<i>Result 2a: Undergraduate and graduate coursework on climate change improved</i>							
(4) Number of courses that newly include climate change information because of MUCCRI/Activity assistance /interactions	4	Reviewed 12 programs of courses and suggested climate content additions	1	1			
<i>Result 2b: Short term training to external stakeholders provided</i>							
(5) Number of short-courses in climate change and/or adaptation developed by or with Activity support and delivered under the auspices of MUCCRI (not all with pre/post testing associated)	4	1	+5	0			
(6) Number of individuals with increased capacity to adapt to the impacts of climate change as a result of USG assistance. (Identified by pre/post tests or follow-up surveys)	# or % of respondents with increased capacity to adapt	88* *there were about 3x more participants at the end of one of the trainings than filled in post tests – only those who	107	254 73% of the students in the Dev Studies course answered the climate question(s) and passed			

Indicator Name & Number	Target YR 2	Quarter One	Quarter Two	Quarter Three	Quarter Four	Year 2 Total	Notes
filled in post tests are added here							
Result 3: MUCCRI is generating high quality climate change and climate adaptation research							
(7) Number of graduate and undergraduate student research efforts on climate change and climate change adaptation supported yearly by the Activity	11	5	+ 3	+6			
(8) Number of publications in peer-reviewed journals from Activity supported student research efforts (peer review/accepted indicates quality)	0	0	0	0			
Result 4: MUCCRI is communicating with external stakeholders and disseminating climate change adaptation information							
(9) Number of farmers reached with research results and new climate information by dissemination pathway participants	Phase 2: Pilot test the pathway and note numbers of farmers reached	Tested and revised the template	Collecting new information to test the dissemination pathway via a website	Collecting filled templates with information to share for website dissemination			

Annex B: Brief Report on the Integration of Climate Change in Development Studies Curriculum

A Brief Report on the Integration of Climate Change in Development Studies Curriculum

**Prepared by Annet Nakyeyune
Assistant Lecturer, Department of Development Studies**

The two technical staff from the *USAID/Uganda Education and Research to Improve Climate Change Adaptation (ERICCA)* Activity representing Makerere University Centre for Climate Change Research and Innovations (MUCCRI) had a meeting with the Department of Development Studies in January 2015 in which the Head of Department attended and discussed the importance and ways of integrating climate change in the Department's Undergraduate Program. The following has been achieved.

1. To begin with, ERICCA staff, on behalf of MUCCRI, prepared materials and delivered lectures to second year students of Bachelor of Development Studies, DES 2226 – Energy, Environment and Development who total to about 350 students. These lectures were modeled for the course unit lecturer, Ms. Annet Nakyeyune. Ms. Nakyeyune later taught the evening group that missed MUCCRI lectures.
2. The end of semester exam has been done and out of the 8 exam questions that were asked, 3 were about climate change.
3. In order to ensure that students take actions about what was learnt in the climate change lectures, as part of course work, students were asked to develop action plans on climate change mitigation and adaptation that they will implement when they get back home.

Proposed Back Home Action Plans (BHAP) for DVS Students, Year II.

Following the lectures that were delivered by ERICCA/MUCCRI staff, students understood that climate change is not only one of the major global environmental challenges facing the world today, but also it is a great threat to the sustainable development agenda. Recognizing man's significant contribution to climate change, its dreadful effects on the development agenda and the required actions to deal with it, students have proposed to implement the following responses during the long recess of June – Jul 2015. The responses were code named BHAPs (Back Home Action Plans).

BACK HOME ACTION PLANS (BHAPs)

Region	Districts of Intervention	Nature of Response	BHAP Leaders
Central	Gomba	<ol style="list-style-type: none"> 1. Sensitization of communities about climate change, what human actions cause it, consequences and desirable responses. 2. Encourage tree planting 3. Encourage adoption of energy efficient technologies for cooking/heating in homes, schools. 	Wasswa Daniel,
	Mpigi	<ol style="list-style-type: none"> 1. Encourage families to adopt family planning methods to reduce on population explosion. 2. Encourage tree planting 	Nalubowa Hasifah
	Masaka, Rakai	<ol style="list-style-type: none"> 1. Encourage adoption of energy efficient technologies for cooking/heating in homes, schools. 2. Encourage tree planting 	Sewakiryanga Andrew
	Luweero	<ol style="list-style-type: none"> 1. Encourage adoption of energy efficient technologies for cooking/heating in homes, schools. 2. Encourage tree planting 	Sentongo Charles
	Lwengo	<ol style="list-style-type: none"> 1. Sensitize people (voters) to demand for inclusion mitigation and adaptation responses in the political aspirants' manifestos 2. Encourage tree planting 	Namwanje Catherine
	Mityana	<ol style="list-style-type: none"> 1. Sensitize people (voters) to demand for inclusion mitigation and adaptation responses in the political aspirants' manifestos 2. Encourage tree planting 	Nansubuga Josephine
	Nakasongola	<ol style="list-style-type: none"> 1. Sensitize people (voters) to demand for inclusion mitigation and adaptation responses in the political aspirants' manifestos 2. Encourage tree planting 3. Encourage people to try other livelihood opportunities other than charcoal burning e.g. Poultry. 	Sebina Simon
Eastern	Kamuli	<ol style="list-style-type: none"> 1. Sensitization of communities about climate change, what human actions cause it, consequences and desirable responses 2. Encourage farmers to plant trees in their gardens, as hedges and 	Kasadah-Ayasi

		to invest in private forests. 3. Search for organizations that can distribute tree seedlings to farmers and connect them to farmers.	
	Iganga	1. Sensitization of communities about climate change, what human actions cause it, consequences and desirable responses	Kasakwa Ismail
	Pallisa	1. Sensitization of communities about climate change, what human actions cause it, consequences and desirable responses. 2. Encourage town dwellers to adopt energy saving bulbs. 3. Encourage use of improved cookstoves	Kiirya Brian
	Kaberamaido	Sensitization of communities about climate change, what human actions cause it, consequences and desirable responses	Mudebo Ronnie
	Soroti	1. Sensitization of communities about climate change, what human actions cause it, consequences and desirable responses. 2. Mobilize unemployed youth to plant nursery beds and sell tree seedlings to farmers at a subsidized price e.g. 500/= per seedling. 3. Encourage adoption of energy efficient technologies for cooking/heating in homes, schools.	Emechu Francis
	Namutumba	1. Sensitization of communities about climate change, what human actions cause it, consequences and desirable responses 2. Work with primary schools to compose songs and drama plays on the dangers of climate change. 4. Encourage adoption of energy efficient technologies for cooking/heating in homes, schools.	Naisamula Milly
Western	Kibaale	1. Seek opportunity in secondary schools to talk about climate change and how we need to respond to it. 2. Encourage people to adopt efficient energy cookstoves	Ayebazibwe Joseph
	Rukungiri	1. Lobby political leaders and aspirants to consider climate change mitigation and adaptation in their programs 2. Encourage adoption energy efficient stove 3. Encourage people to plant trees	Rukundo Peninah
	Mbarara, Ntungamo	1. Encourage people to use improved cookstoves. 2. Encourage people to explore use of biogas	Asiimwe Angela Irumba, Atuheire Marion

		<ol style="list-style-type: none"> 3. Encourage 2016 political aspirants to give tree seedlings to farmers 4. Request for free local radio airtime to sensitize people about the dangers of global warming and what needs to b 	
	Masindi,	<ol style="list-style-type: none"> 1. Encourage people to use improved cookstoves. 2. Encourage people to explore the use of biogas 3. Encourage people to look at other livelihood opportunities other than charcoal burning 	Asango Mary Diana
	Bundibugyo	<ol style="list-style-type: none"> 1. Participation in tree planting exercises 2. Request for an opportunity during community meetings to talk about climate change 	Musinguzi Pius
	Kabarole	<ol style="list-style-type: none"> 1. Encourage people to use improved cookstoves, kilns. 2. Sensitize communities on how climate change will affect tea growing in the district 	Nyangoma Doreen
	Kasese	<ol style="list-style-type: none"> 1. Encourage people to use improved cookstoves 2. Sensitization of communities on the dangers of climate change and they need to respond 	Muhindo Alice
Northern	Napak	<ol style="list-style-type: none"> 1. Volunteering at the Climate Change Adaptation (CCA) Learning Centre in Napak, Karamoja. 2. Engage in tree planting 3. Research on the available drought resistant crop varieties 	Cosmas Lolemtum
	Adjuman	<ol style="list-style-type: none"> 1. Mobilize youth to plant trees in their villages 2. Encourage people to use improved cookstoves 3. Plant at least 10 trees in their respective homes and encourage neighbours to do the same 	Onenarach Dan

Students are required to write a short report on what actions they carried out, where, how, challenges faced and possible follow up activities.

4. Integrating climate change in other undergraduate course units. The Department is organizing a curriculum review in July 2015. The following course units are proposed for climate change integration.

Course Unit

DES 1101: Introduction to Development Studies

GAD 1100: Concepts and Theories of Gender and Development

DES 2132: Industrialization and Development

DES 2226: Energy, Environment and Development

DES 2129: Rural Development

DES 3125: Urbanization and Development

BPS 3203: Population and Development

5. Some third year students competed for MUCCRI research grants and are awaiting outcome.

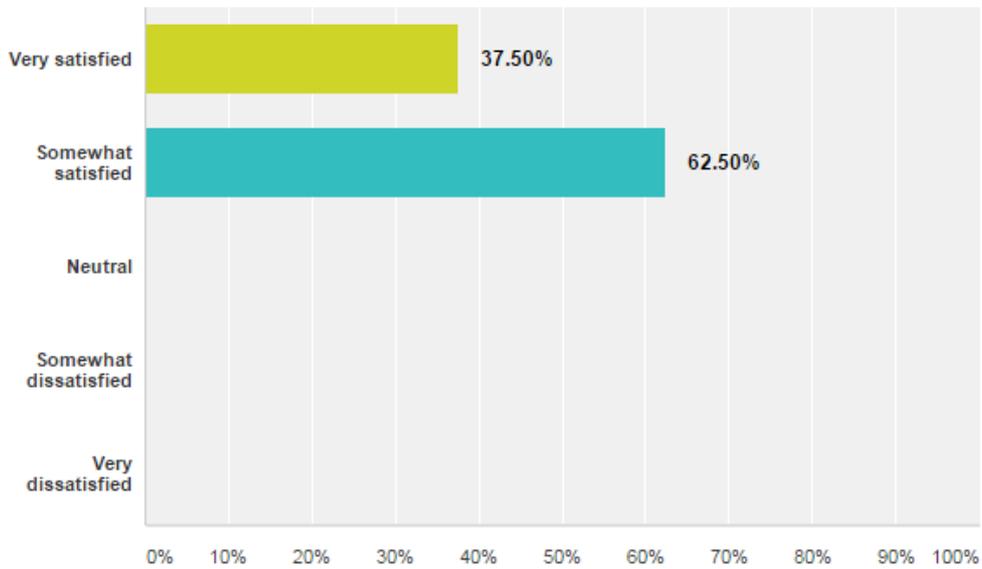
Future plans

- I. BHAPs will be done every year by second year students. Every year lessons will be learnt and adjustments done whenever necessary. The ultimate aim is to make BHAPs a program for the undergraduate degree, where supervision and follow up visits will be done by the Department staff if resources permit.

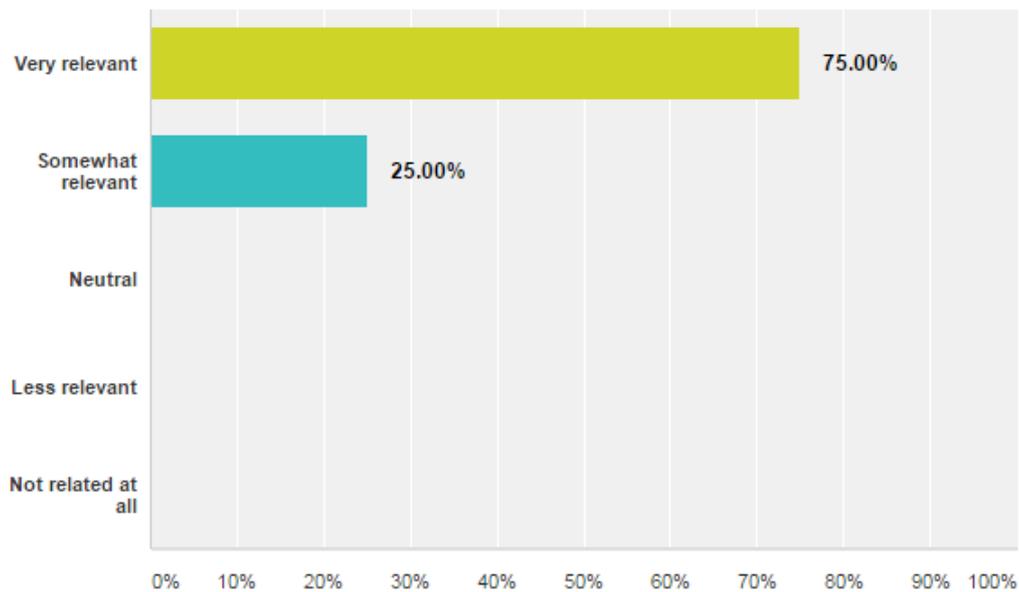
Annex C: aWhere Training Feedback Results

Eight participants completed the feedback survey at the end of the training. The results below are from the aWhere Training Feedback Survey, collected immediately after the training. The results are used to guide the provision of additional trainings and resources.

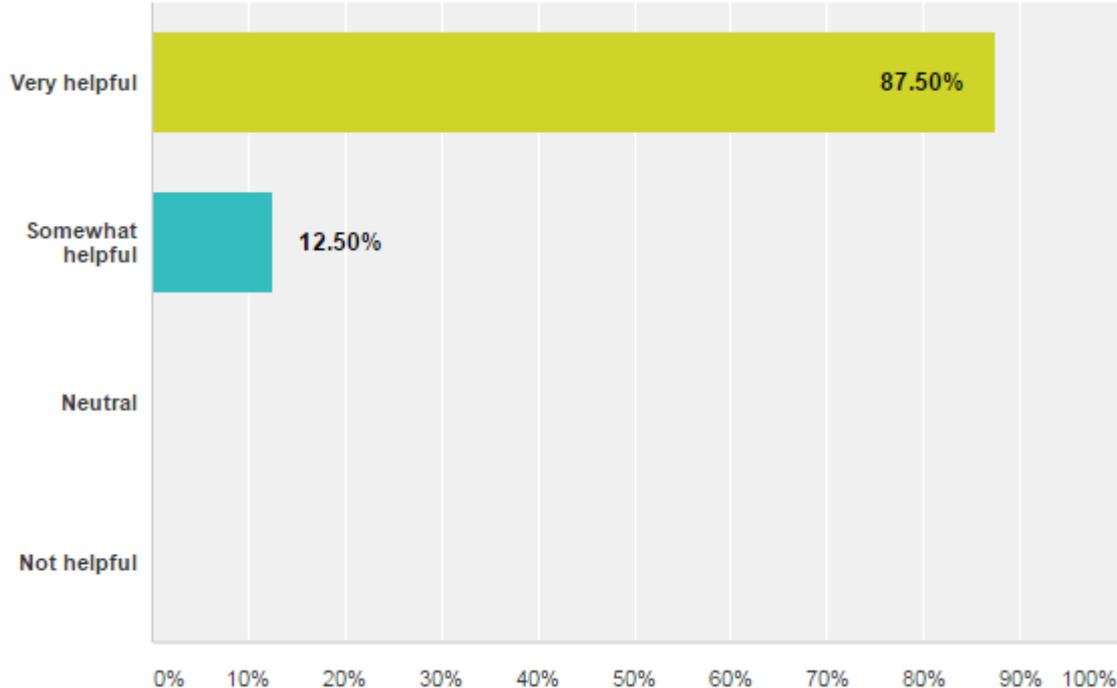
Q1: Please indicate your overall satisfaction with the aWhere training



Q2: How relevant did you find the examples used in the training to your work or project?



Q3: How helpful were the lessons on data management best practices?



Q4: Please tell us how much you agree or disagree with the following statements:

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total	Weighted Average
▼ The trainers communicated clearly and effectively.	75.00% 6	25.00% 2	0.00% 0	0.00% 0	0.00% 0	8	4.75
▼ The trainers were knowledgeable about the platform.	100.00% 8	0.00% 0	0.00% 0	0.00% 0	0.00% 0	8	5.00
▼ The training was well-organized.	62.50% 5	37.50% 3	0.00% 0	0.00% 0	0.00% 0	8	4.63

Q5: Please tell us how prepared you feel to complete the following functions in the aWhere platform:

	Very prepared	Somewhat prepared	Not prepared	Total	Weighted Average
Load data from an Excel spreadsheet	62.50% 5	37.50% 3	0.00% 0	8	2.63
Generate descriptive statistics	12.50% 1	87.50% 7	0.00% 0	8	2.13
Analyze data	37.50% 3	62.50% 5	0.00% 0	8	2.38
Share an analysis	25.00% 2	50.00% 4	25.00% 2	8	2.00