Rwanda: Women's Leadership Program in Agriculture

November 1, 2012 to June 30, 2015

Michigan State University, Washington State University and the University of Rwanda
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Executive Summary

From November 1, 2012 to June 30, 2015, Michigan State University (MSU) subcontracted Washington State University (WSU) together with our partner institution, the University of Rwanda (UR) in order to deliver a gender sensitive Masters of Science in Agribusiness program at UR. The project had three specific objectives, to strengthen the human and institutional capacity of UR in teaching and applied research in agricultural sciences; to promote and support women's access to graduate education in agricultural sciences; and to extend UR's knowledge about, and women's expertise in, agricultural sciences to the community. Goals 1 and 2 were adequately fulfilled, but goal 3 was only partially fulfilled due to circumstances at UR.

This project faced several major obstacles in its implementation which threatened the achievement of even the simplest project goals. Not least among those obstacles was the merger of the seven public universities into a single public institution, the University of Rwanda, which caused the project to enter into a period of near paralysis and uncertainty while the new public institution groped its way through the new structures created by the merger. Other major obstacles were the departure of partner project staff (the Principal Investigator, the Gender Coordinator, and the Financial Manager) without replacements being named, and an overly centralized financial accounting system that caused unreasonable delays in the transfer of project funds from MSU to UR.

In spite of these major difficulties, the project had several high profile achievements:

- A cutting edge gender-sensitive MSc in Agribusiness program;
- The first cohort of 23 students in the Masters program;
- Forty-five faculty trained in state-of-the-art teaching and learning methods;
- Forty-five faculty with training in gender sensitizing curricular design and classroom practice;
- Twenty faculty with at least one course that has undergone a gender-sensitive redesign;
- Forty-five faculty with an on-line version of at least one of their courses;
- Sixty-five top administrators in the UR national system who have received training in academic leadership;

- Twenty-eight upper class students who have been trained as student peer coaches;
- Twelve faculty members who have been trained to give oversight to the peer coaching program;
- Four seed grant research projects that have created new research partnerships, strengthened UR's research capabilities, produced significant research results, and are positioned to secure further research funding.
- An advisory committee for the MSc in Agribusiness program that includes top representatives from the public, private, and NGO sector.
- An internship program that will provide MSc students with valuable hands-on experience in agribusiness.

With these several successes, we close this project with gratitude to USAID and HED for their support of this important project and, together with them, we celebrate the major contribution that this project is making and will continue to make to the Rwandan agricultural economy.

Section 1: Development Issue(s) and Context for Partnership

The world of development practitioners is quickly coming to the conclusion that gender equality is indispensable for long-term social and economic sustainable development (Dollar and Gatti, 1999; Kevane, 2004; Rai, 2008; King & Mason, 2001; World Bank, 2012). The presence and leadership of women has measurable impact on good governance, social and economic development, and a civil society, and thus benefits men as well as women, as is reflected in such publications as the 2012 World Development Report produced by the World Bank (World Bank, 2012). The World Bank advances two reasons for promoting gender mainstreaming in development work. The first is an argument from justice, namely, that gender equality ought to be pursued as a value in and of itself, regardless of any economic advantages that may accrue as a result. As such, it is recognized as a human right that must be secured and protected. The second argument is economic. Gender mainstreaming has consequences for economic growth and development. It promotes greater participation of women in the work force, boosts economic activity, and enhances childhood development and family welfare (see Figure 1). Conversely, the exclusion of women is cited as a major contributing factor to the increased vulnerability of many developing countries to economic shocks and financial crises, perpetuating and even worsening current levels of poverty, instability and insecurity (Buvinic, Lunde, & Sinha, 2010).

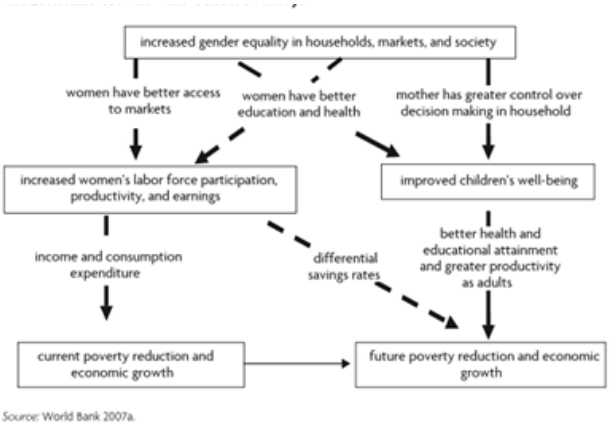


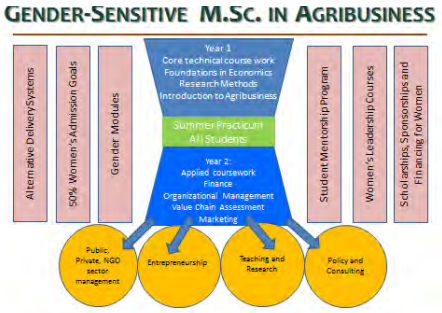
Figure 1: Socio-economic Benefits of Gender Mainstreaming

The effort to access these socio-economic benefits, however, require that society be engaged at the level of the home and the community (Carlson & Randell, 2013). This includes working with men to transform social and cultural perceptions of women's traditional roles. Recent studies have shown that engaging men in the pursuit of gender equality produces greater and longer lasting results (Barker & Lang, 2012; Carlson & Randell, 2013; Minerson, Carolo, T., & Jones, 2011; Peacock & Levack, 2004; United Nations Population Fund, 2012).

The Rwanda Women's Leadership in Agriculture project (RWLAP) is part of USAID's Women in Leadership Program (WLP), administered by Higher Education for Development (HED). The project is the result of a winning bid by the partner institutions Michigan State University (MSU), Washington State University (WSU), and the University of Rwanda (UR). The overall goal of the project is to increase the number of women in positions of leadership in Rwanda's agriculture sector. The project has three objectives:

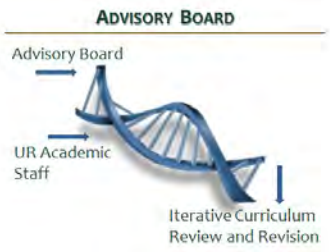
- **Objective 1:** To strengthen the human and institutional capacity of UR in teaching and applied research in agricultural sciences.
- **Objective 2:** To promote and support women's access to graduate education in agricultural sciences.
- **Objective 3:** To extend UR's knowledge about, and women's expertise in, agricultural sciences to the community.

Figure 2: Gender Sensitive M.Sc. in Agribusiness



The primary vehicle for the achievement of these objectives is a gender-sensitive Masters of Science in Agriculture program designed and implemented jointly by MSU and UR in order to train tomorrow's leaders, both men and women, in Rwanda's agriculture sector (see figure 1). The Masters of Science in Agriculture Program is a unique blend of three cross cutting issues: gender sensitivity, experiential learning, and sector integration. By making gender part of all aspects of the program (rather than adding a gender course to an existing curriculum), the impact of gender issues is analyzed from every angle. Experiential learning gives students the opportunity to learn by doing, through extra-classroom exercises and through a mandatory internship in the relevant sectors. The program has also named an advisory board with high-level representatives from the public, private, and NGO sectors in order to keep the curriculum relevant for future employment (see figure 2).

Figure 3: Advisory Committee



In addition, the program offers UR's first Career Development Office (CDO). The purpose of the CDO is to support students with early understanding of, experience in, and relevance to the sectors in which they will be employed in the future. It does this by providing career counseling and internship placements in the various sectors, as well as by providing forums and workshops for students to learn the softs skills necessary for leadership in today's dynamic world (see figure 3). This includes an international internship partnership for students from MSU, WSU, and UR. These two week internships bring students together across the geographical and cultural divide in order to foster mutual understanding and basic transcultural research skills. The internship is problem-based and produces potential solutions to intractable problems for producers. These innovative features all make the program unlike any other offered in Africa, and perhaps the world.

Figure 5: Career Development Office

In addition to, and as part of, this effort to raise up the next generation of leaders in agriculture with a keen eye toward gender issues and development, MSU is providing UR with expert advice and training in the areas of pedagogy, research, and administration. The capacity building efforts are intended to strengthen UR as an institution so that, at the end of the grant period, UR will be in a position to sustain the programs, without interruption, indefinitely into the future. This focus on sustainability ensures that the program will be, not only a contribution, but a legacy for the partnership institutions.

Figure 4: Capacity Building at UR

Section 2: Partnership Results

As noted in the previous section, the partnership had three objectives, namely:

- **Objective 1:** To strengthen the human and institutional capacity of UR in teaching and applied research in agricultural sciences.
- **Objective 2:** To promote and support women's access to graduate education in agricultural sciences.
- **Objective 3:** To extend UR's knowledge about, and women's expertise in, agricultural sciences to the community.

The partnership ran into significantl delays in years one and two of the three-year project, necessitating some changes in emphases among the three objectives. Project accomplishments around each one of the objectives are describes in what follows.

Objective 1: To strengthen the human and institutional capacity of UR in teaching and applied research in agricultural sciences.

The first project objective was to create a stronger institutional platform for delivery of two of the central project components – gender sensitivity and active learning. After the initial baseline study of the faculty at what was at the time the National University of Rwanda (NUR) revealed that gender attitudes were still quite divided among the faculty members at the university and that teaching practices still were heavily reliant on the lecture. We laid out a strategy for addressing both these issues (see Appendix A), we strategically sought to address this objective through a series of workshops designed to progressively change the gender culture and the teaching culture at UR.

A holistic gender-inclusive approach has been key to the success of this women's leadership project. The project's gender integration strategy has addressed issues of underrepresentation of women at both the University of Rwanda and within Rwanda's agricultural sector and has sought to mainstream gender into the College of Agriculture and Veterinary Medicine's (CAVM) classrooms, curriculum, and research. This approach has ensured increased access for women at the university and has been inclusive of women's and men's differential roles and priorities for agricultural development.

Outcome 1.1 A gender-sensitive Master of Science (M.Sc.) program in Agribusiness at NUR that prepares students for careers and leadership roles is established and offered.

In line with the agreed-upon project outcomes, the first strategy was to incorporate gender sensitivity into the curriculum design. On April 2 and 3, the team met with those from the NUR faculty who would be participating in the design of the curriculum and consulted gender experts at UR to identify areas for integration, compile resources, and contribute gender content to each module's syllabus. The workshop focused strongly on effectively integrating gender issues and active learning in the design of the Masters of Science in Agribusiness curriculum. The curriculum was then send out to international and regional curriculum writers with instructions to incorporate gender and active learning across the curriculum (rather than restricting it to one class session, one course, or one activity). Once the writers submitted their suggested course designs, these courses were further submitted to a gender review at the Center for Gender in Global Context here at MSU. The completed curriculum is included in Appendix B. This became the basis for achieving outputs 1.1.1 and 1.1.2:

- Output 1.1.1: A gender-sensitive curriculum in agribusiness that meets Rwandan and international requirements for a master's degree program is developed.

- Output 1.1.2: Gender sensitive course modules on multidisciplinary professional skills which prepare women students for leadership roles are created.

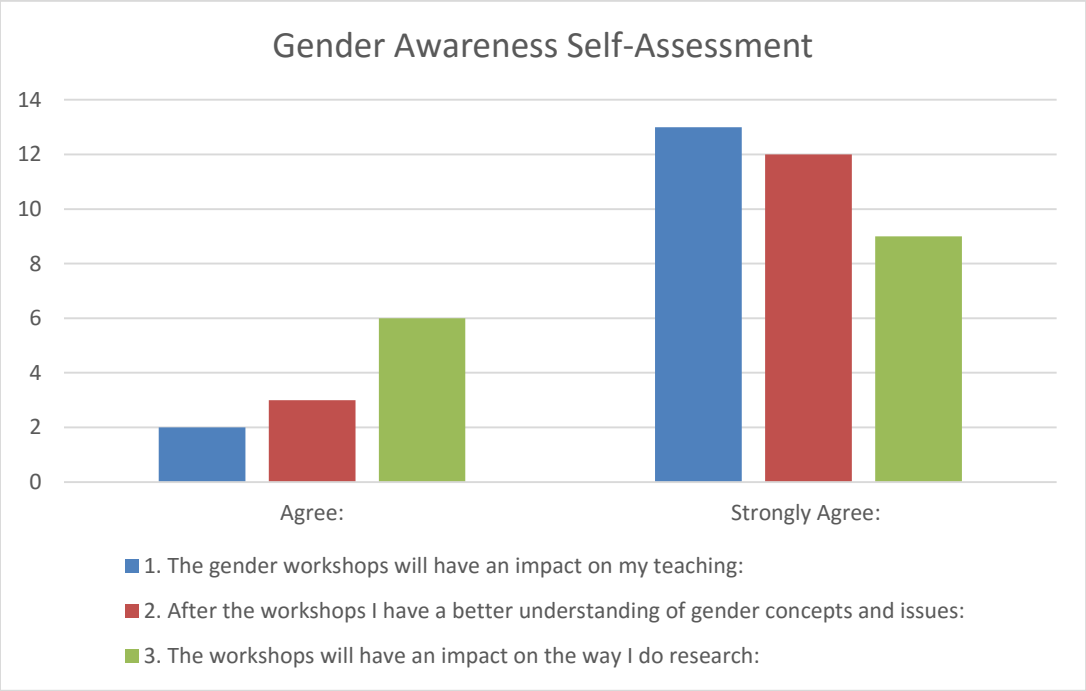
In each instance, project goals were achieved through careful attention to the way in which the curriculum for the Masters of Science in Agribusiness was written.

Outcome 1.2: Enhanced pedagogical skills of NUR faculty to teach the gender-sensitive agricultural sciences curriculum and supervise agricultural sciences research.

We were aware, however, that putting a gender sensitive curriculum on paper was no guarantee that these principles would actually find their way into the classroom. Our second strategy was, then, to work methodically to change the way gender was incorporated into the

classroom. Gender inclusion is not only a pedagogical method, in order to become effective, it also has to become part of the classroom culture. We were pleased, then, when the Principal suggested that we broaden our workshops to include personnel not only from the Department of Agroeconomics and Rural Development, but also representatives from each of the schools and departments from the College of Agriculture, Animal Sciences, and Veterinary Medicine. We quickly defined a strategy for addressing that worked from the more abstract to the more applied by designing a series of workshops that would deal directly with the issue of gender in the classroom. The purpose of these workshops was to assist CAVM faculty generally, and faculty teaching in the Masters of Science in Agribusiness specifically, in designing classroom content and classroom environments that would break down the barriers that women often face both inside and outside the classroom. The results were encouraging. Project ending surveys of gender training participants showed that 100 % of participants felt that their awareness of gender in the curriculum and classroom had improved and that they were more intentional about addressing gender issues in the classroom as a result of the training they had received (see Figure 6).

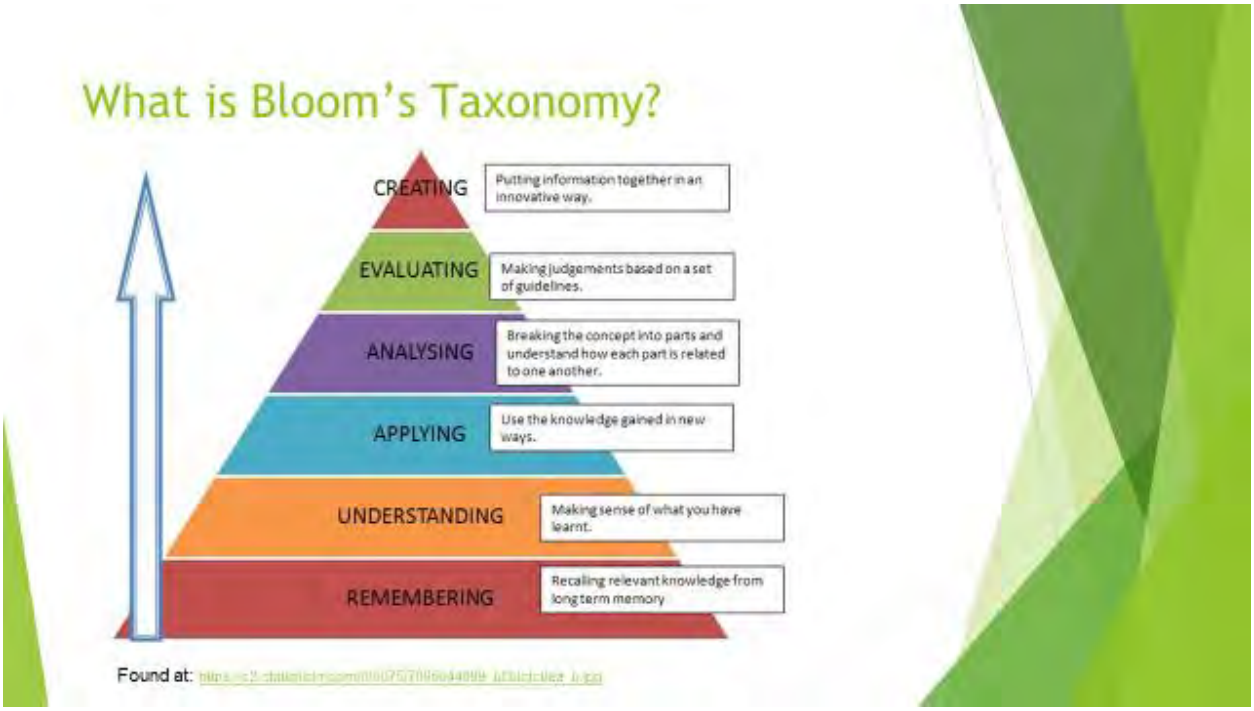
Figure 6: Project Closing Gender Evaluation



A total of 11 workshops and trainings were held that integrated gender content. These included trainings in pedagogy, research planning, peer coaching, mentoring, gender and classroom dynamics, and gender integration in agricultural curriculum. In the second year of the project, the Principal of CAVM identified 45 faculty who represented each one of the departments in the CAVM to attend the workshops and trainings in order to become a catalyst for the rest of the faculty. Two workshops (3-days and 4-days respectively) were held that focused exclusively on gender concepts and their integration into the teaching and curriculum of CAVM. These were co-taught by MSU and local gender experts. Through this series of workshops we addressed output 1.2.1 from the results framework.

- Output 1.2.1: Faculty development training about agricultural sciences teaching methods delivered.

Figure 7: Bloom's Taxonomy



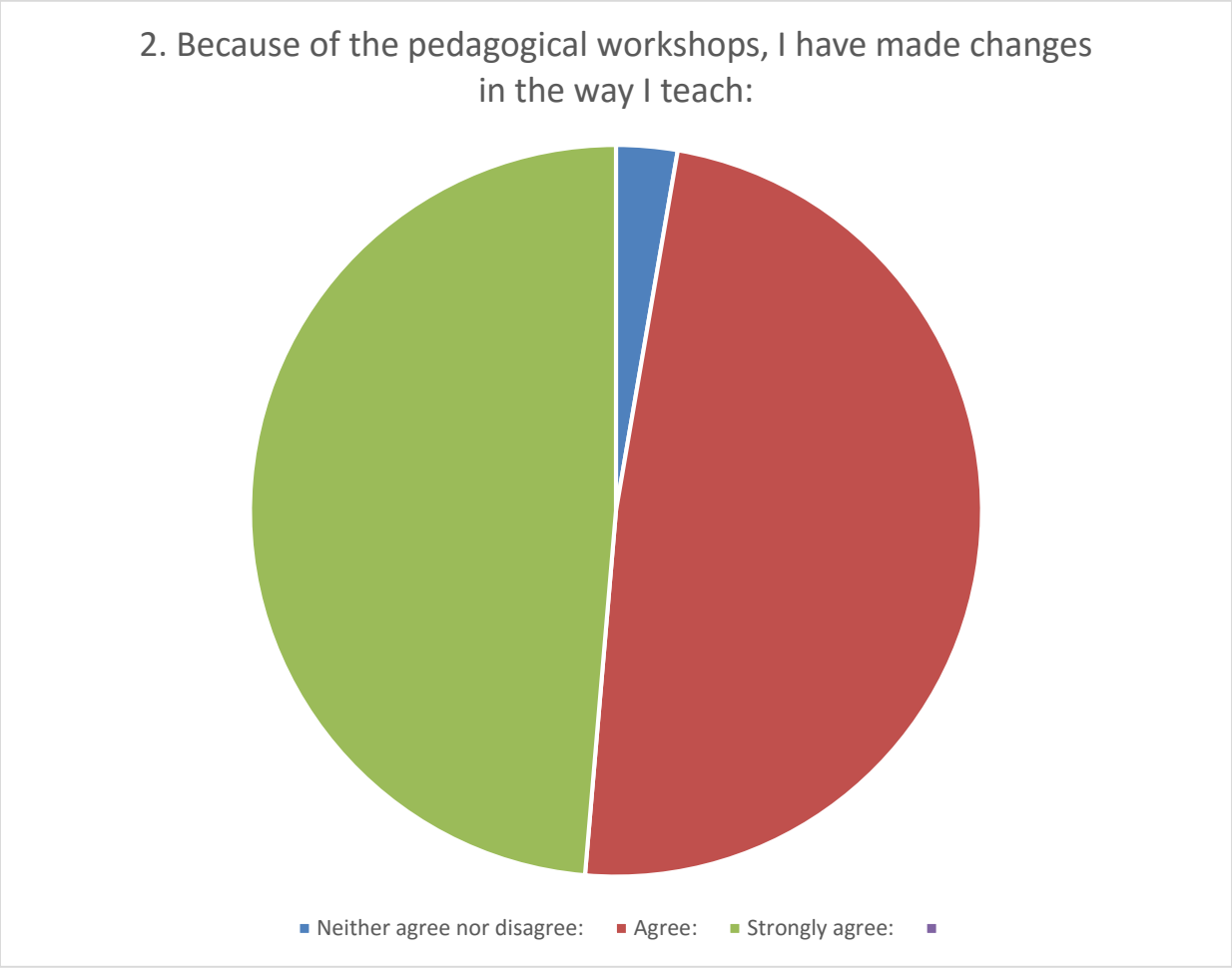
These pedagogy workshops focused on the principles of what is known as active learning, which has proven effective in increased learning in the sciences (Freeman, Eddy, McDonough, Smith,

Okoroafor, Jordt, & Wenderoth, 2014). Active learning involves making the learning a participant in the learning process in order to reach the higher levels of critical thinking according to what is known as Bloom's taxonomy (see Figure 7). Active learning helps the student not only to know and understand the course content, but also to synthesize that content in the students' already existing knowledge base so that the content becomes useful in making application of that new knowledge in new contexts, evaluating the efficacy of multiple solutions, and creating new solutions where they do not exist (Roehl, Reddy, & Shannon, 2013). As with the gender workshops, we did a final evaluation of the pedagogy workshops in order to respond to one of the custom indicators in our baseline tool. The results of the evaluation can be seen in Figure 8. As can be seen from the evaluations, there was strong assent to the notion that the workshops had had an impact on their classroom methods and had improved their teaching.

Figure 8: Results for Question One in Pedagogy Evaluations

As can be seen from the graphic, 95% of the participants felt that their teaching had improved as a result of the workshops. Of those, 62% strongly agreed.

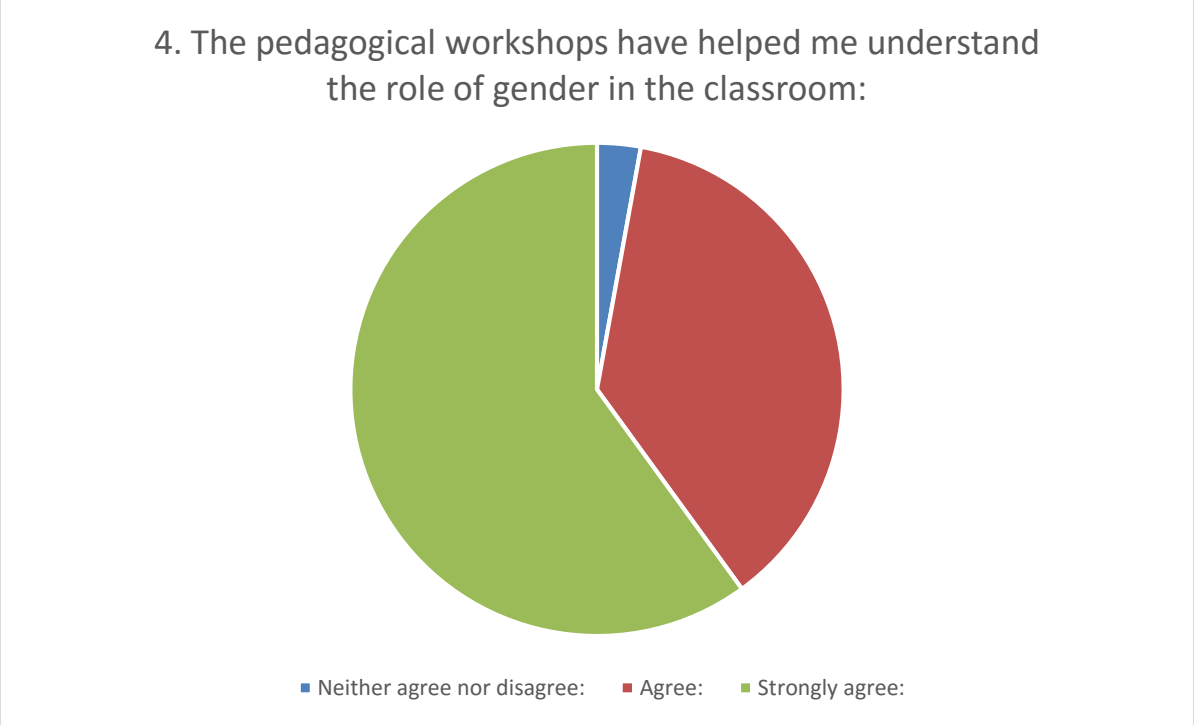
When it came to the question as to whether the pedagogy workshops had caused them to make changes in the way they taught, the percentages were even higher (99% agreement) although the agreement was not as enthusiastic (49% strongly agree; see Figure 9).



We also inquired as to how the pedagogical workshops had affected the integration of gender into the content and method of teaching. Here again the percentages of those who felt that the workshops had increased their awareness and use of gender in the classroom was high, once again, at 97% of the participants (see Figure). Among the changes that participants perceived in their approach to gender in their teaching were such comments as "Inclusion of girl students in a group learning presentation. Encouraging girls for taking leadership roles in class and field

activities," and "I have formulated working groups which include both female and male. I also tried to include one chapter on improvement of gender for example in marketing agricultrual products." In all, the participants listed a total of 37 different changes that they had made in their approach to gender in the classroom as a result of the pedagogical workshops. Most encouraging were comments like these: "Actually, I used to teach without taking into account gender issues in my program. I have created methodology of looking how my course will be helpful for both males and females."

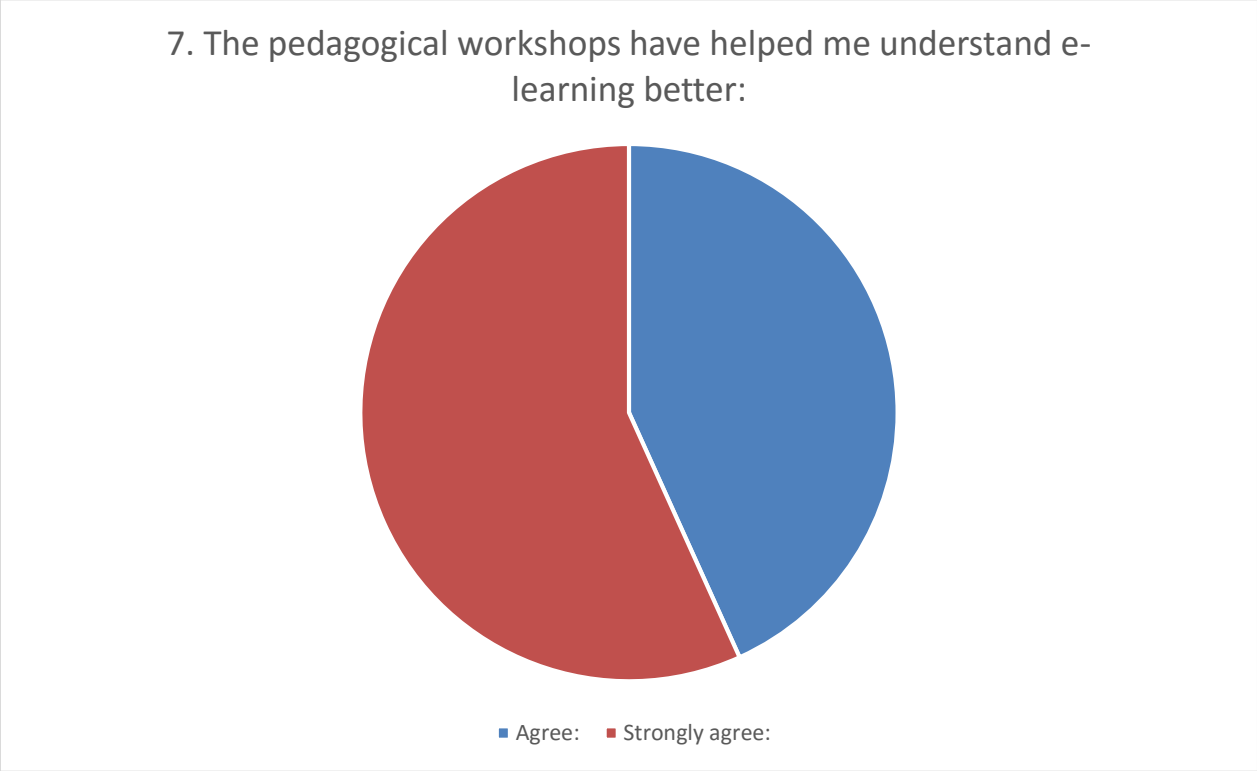
Figure 9: Final Pedagogical Evaluation -- Effect on Gender in the Classroom



Part of the focus of the pedagogical workshops was on developing the skills needed to present their coursework on-line in e-learning environments. This was in fulfillment of outcome 2.1 and output 2.1.1 (see discussion below) to reduce barriers for women pursuing advanced degrees in agricultural sciences by providing flexible delivery options that make Master's coursework accessible to working women and women with family responsibilities. The first question we asked was whether the pedagogical workshops had helped them better understand

the concepts underlying e-learning. In this case, the response was anonymous that the workshops had helped them better understand e-learning. Fifty-seven percent strongly agreed and 43% agreed.

Figure 10: Final Pedagogical Evaluation -- Understanding E-learning

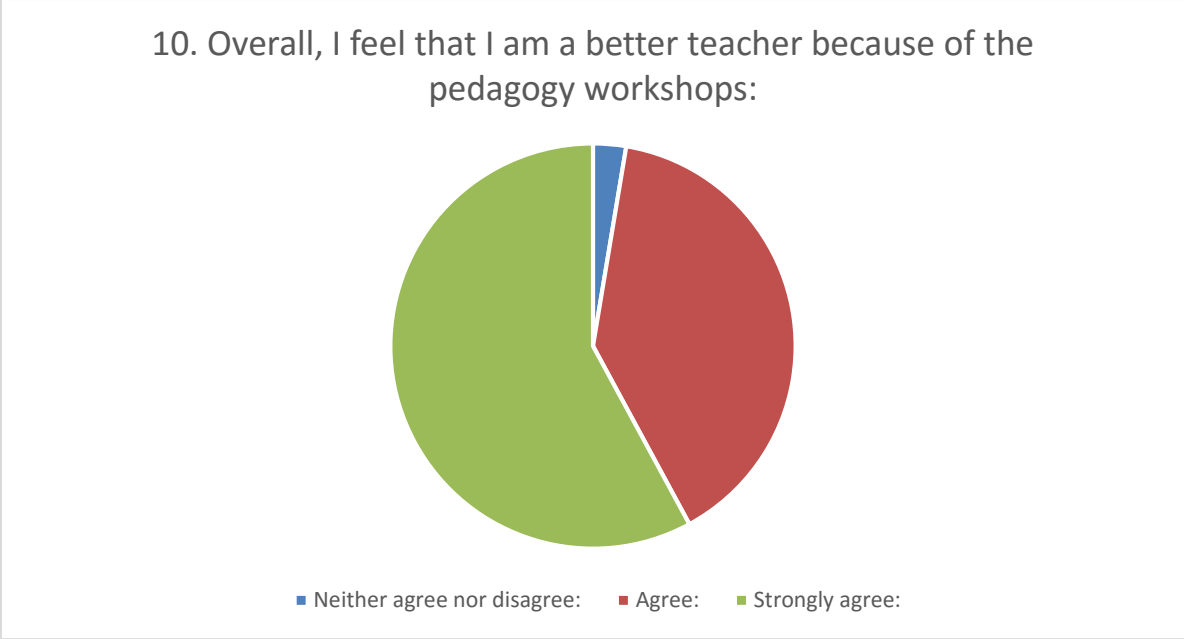


When we asked whether they would incorporate e-learning methods into their teaching in the future, the responses were even more encouraging. Here again 100% or participants felt that they would be more likely to incorporate e-learning strategies into their teaching in the future and, of these, 69% strongly agreed that, because of the workshops, they would use e-learning in the future and 31% agreed .

Figure 11: Final Pedagogical Evaluation -- Use of E-learning in the Future

Finally, we asked, overall, whether the pedagogical workshops had made them a better teacher in

Figure 12: Final Pedagogical Evaluation -- Improved Self-Confidence as an Instructor



the classroom. Here, 97% agreed, with 59% strongly agreeing. Perhaps the most encouraging part of this survey were the comments that were included. In one response, the pedagogical workshops proved to be a career changing experience, "These workshops have really improved my way of perceiving the teaching profession. I am ready to pursue my career (otherwise I was about to leave it). It is worth to all staff for improvement" [sic]. The full results of the pedagogical evaluation can be found in Appendix D.

In addition to the self-evaluations, we also conducted a series of classroom observations in order to get a sense of how the principles that we had infused in the pedagogical workshops were being integrated into classroom activity. We made classroom observations made at three different campuses on the University of Rwanda: Rubirizi, Busogo, and Nyagatare. The subjects were:

- (1) Agricultural development (approximately 30 students),
- (2) Human nutrition and pregnancy (approximately 15 students),
- (3) Nutrition and postharvest production of seed (approximately 15 students)
- (4) Quality of water and sustainability (approximately 250 students)

We also did a less formal observation of one laboratory in which about 10 students were working on their final research projects. They were, for the most part, working on their own, having achieved a degree of self-directedness to the extent that minimum supervision by the laboratory lecturer was needed.

Two data collection methods were used: 1) a classroom observation system, and 2) a semi-structured interview protocol. Classroom observations were guided by the Flanders Interaction Analysis Inventory (FIAC), a coding system that documents both the amount and kinds of talk demonstrated in classrooms by teachers and students. This system is comprised of seven teacher talk categories and three student talk categories. This system was selected because of its ease of use and because it provided information on teacher behaviors that were thought to promote active and engaged student learning. The categories accounted for cognitive and both positive and negative socio-emotional dimensions of teacher talk. The three student talk categories reflected the extent to which students were responding to the teacher, initiating their talk, or were silent or confused. Teacher and student talk was coded approximately every three

seconds by a faculty member trained and experienced in the use of this system for coding classroom behaviors in higher and adult education contexts. Each classroom observation was then summarized in terms of the percent of total talk time represented by each of the teacher and student categories.

A semi-structured interview protocol as was used to interview each of the observed teachers. The overall focus of this protocol was to obtain information from the teachers on their reflections of the teaching session observed. The questions sought information on their beliefs about teaching and learning within their respective contexts, their overall goals and plan for the instructional session, strengths and weaknesses of the session, and what they perceived to be some of the overall challenges they faced within their respective teaching sessions.

Teachers in all four classroom sessions relied predominantly on lecture as the primary mode of instruction. Teacher No. 1 made use of the blackboard, and Teachers 2, 3, and 4 relied on and talked exclusively from PowerPoint presentations. The lectures were well organized and structured, with introductions that reviewed what they had covered so far and a body that highlighted key points along the way. Delivery of the lectures seemed clear and well-paced. Teachers No 1 and 3 demonstrate good summaries. The lecturers maintained good eye contact with the students. Few students took notes during the lectures. All four lectures lasted between 45 minutes and slightly more than one hour. There were no breaks within these periods of time and no additional activities, with the exception of an occasional question asked of the students and students responding.

No explicit forms of criticism or other negative behaviors on the part of the teachers were observed. In a couple instances, the lecturers seemed to use friendly banter as feedback to an answer to a question or a comment made by a student. This friendly banter was also used a couple times to seemingly deride the students for not doing something they were expected to do.

Student talk comprised only a very small proportion of the classroom communications observed. The number of interactions with students during the lectures was quite modest and varied across all four classroom sessions. The most interaction was observed with Teacher No. 1 and the least with Teacher No. 4. By and large the vast majority of these interactions involved "call and response" (i.e., asking questions that sought specific answers). Teachers 1-4 inserted

questions into their lectures. Teacher No. 3 occasionally asked if there were any questions but, except for one instance, she received no response. For the most part, these lecturers were seeking specific answers to specific questions. They seemed to call on the extent to which the students memorized or had familiarized themselves with previous material or readings. Teacher 4 demonstrated repeated interactions with her students and a few times made use of what I would call case-like scenarios. She engaged individual students to help develop a statistical model for a case that she was using in her session. In Teacher 1's classroom, students were occasionally prompted to analyze or to give their opinions on positions or questions posed by the teacher. Some of the questions posed seemed to ask the students to think about the material they were studying before responding. In a few instances, student initiated talk was observed, although most of these instances were in the form of questions. Only a few of these student-initiated interactions were sustained for more than 15 – 30 second. In none of these sessions were student-student interactions observed.

The classroom resources in all cases seemed to dramatically effect the nature of the teaching and learning session. For Lecture 1, he was not able to access his PowerPoint on his computer, so he relied on the chalkboard, using it quite effectively. Lecturer No 4 had to project her PowerPoint image on the back wall, forcing her students to twist 90-180 degrees in their chairs to see. All classroom chairs in all sessions observed were fixed to the floor. For lecturer 3, the bright sun pouring through the window made it difficult for the students to read the print on the screen. There were no blinds on the windows to shield the screen and the room from the bright sun in the west. Lecturer 4 had to improvise her PowerPoint, adding some slides at the last minute because the presentation she wanted to use was on another computer that broke and she was not able to access the PowerPoint she had prepared. In the laboratory as well, equipment issues affected what students were able to do. Several of the centrifuges were broken, and there was no easy way to get them repaired.

In summary, the observed sessions provided substantial information and cognitive content. The social processes of the observed classrooms, however, consisted largely of the lecturer talking to the students, occasionally asking questions and occasionally students

responding to the questions asked. Within the structure of the class session, no student-student interaction was observed.

The observed classrooms reflect a continued reliance on lecture as the predominant pedagogical strategy used at the University of Rwanda. Within the lecture, however, teachers were attempting to engage students with questions requiring brief answers. It is noteworthy that the one teacher with the least amount of student interaction was the one teacher of the group observed who had not participated in the previous workshops provided by this programs.

The quality of student learning can be improved by focusing on improving social presence within the lecture. This means inserting a few specific active learning strategies, such as a one-minute paper, or think-pair-share to help students think more deeply about and apply the information that is being delivered.

At the close of the project, the MSU and local gender coordinators met with representatives from CAVM's campus gender teams to support their activities in improving gender equity on their respective campuses, increasing gender resources, and developing a CAVM gender policy. A total of 15 (11 women/ 4 men) participated in this meeting.

Outcome 1.3: Increased applied learning and research opportunities for agricultural science students and academic staff at NUR.

In addition to these efforts in the area of gender sensitivity, we also included among our objective outcomes the improvement of research opportunities and skills for both students and staff. This outcome was met using three activities. The first was an annual international internship that matched students from the US with students from UR. This effort was in partial fulfillment of output 1.3.1:

- Output 1.3.1: Applied learning and research opportunities integrated in the new agricultural sciences master's degree program.

The purpose of this international internship was to give students the opportunity to engage in limited but real research activities. Each year, assisted by Mario Serracin (see Figure),

a member of the Advisory Committee for the Masters of Science in Agribusiness and agronomist for Rogers Family Roasters, a group of six US students were matched with six UR students to study some aspect of the coffee value chain. Each of the student teams went out into the field in order to collect data, analyze the results, and then make a research presentation to representatives of the coffee industry in Rwanda. The experience was both challenging and very satisfying, as students discovered what it meant to do field based research, a skill that will serve them well into the indefinite future. The students' testimonials from 2014 and 2015 can be found on the Storify web-site:

2014: https://storify.com/cahnrsglobal/farm-to-cup-2014-the-economics-of-coffee-in-rwanda.

2015: https://storify.com/cahnrsglobal/farm-to-cup-2015.

Figure 13: Advisory Committee Member, Mario Serracin (left) Explains the Coffee Washing Process to International Interns

A second annual activity was the research exchange. The exchange was conducted in order to fulfill output 1.3.2:

- Output 1.3.2: Applied research initiatives that address practical problems in agriculture and economics conducted.

Each year, the project staff collected the research interests of the CAVM faculty and sought to match them with researchers from MSU and WSU. The research interests were circulated among faculty at the US institutions and the best matches were selected from among interested faculty. Each year four US researchers traveled to Rwanda to work together with their Rwandan counterparts in order to identify a contemporary research project that would have important impact in Rwandan agriculture. The Research Exchange was held each September. US researchers traveled to Rwanda to meet their Rwandan counter parts. The first day was orientation to the difficulties and benefits of international research collaborations, the importance of gender in research, and the requirements of the competitive seed grant application. The second day was devoted to site visits as researchers jointly defined the parameters of their study. The third day was devoted to competitive proposal development. In the afternoon of the third day, the research teams presented their core research concept to the group and the proposals were critiqued by their peers.

The teams were given 15 days after the close of the exchange to prepare their final proposals. The submitted proposals were sent out to peer reviewers. A total of four seed grants were awarded for $20,000 each. The award selection criteria required that awardees integrate gender into their research projects. The results of their research efforts can be found in Appendix C. Each of the four research teams is now working on a scholarly paper as a result of their research findings.

The third activity was the intensive work on the development of a Career Development Office, the first of its kind in the University of Rwanda. The office was developed in partial fulfillment of output 1.3.1:

- Output 1.3.1: Applied learning and research opportunities integrated in the new agricultural sciences master's degree program.

As a first step in developing programming, Luis Flores Ph.D., of Michigan State University and Colleen Taugher, of Washington State University, conducted a needs assessment study of Rwanda's agri-business community in the spring of 2013. The team developed a survey instrument designed to: 1) identify critical skill sets required by real business needs; 2) determine estimated salary ranges for graduates and interns; and 3) determine whether the sector could realistically absorb and hire 20 new MSc Graduates in Agri-Business per year. A sample of fourteen business owners were interviewed representing a variety of players in the sector: exporters, processors, agricultural input suppliers, public sector employers, venture capitalists and financial services companies.

The few days of the survey process were characterized by vivid conversations with a number of entrepreneurs leading important initiatives at different scales. Some are dreaming big in terms of the possibilities in the near future, while others are more cautious and strongly risk averse. For everyone, however, a common thread in the discussions was the importance of the role of Women's Leadership Program in building business skills, particularly in women. It was rewarding to hear how important the university's role is to fill the gap on human resources to push Rwanda's agriculture private sector to the next level, company by company. While most of the original assumptions for the ideal curriculum were validated during these interviews, the study was eye-opening in several respects that were ultimately incorporated into the degree program design.

Several sources quoted how Rwanda's private sector has been booming over the past decade. We heard how the city of Kigali has become an important center for a number of commercial activities from construction to technology and tourism. This development is not taking place at the same rate in any other part of East or West Africa at the present time, which gives Rwandans a strong sense of pride and confidence to invest. Some key informants were quick to point out, however, that positive shockwaves of this boom have been slow in reaching the rural areas, particularly in modernizing the country's agriculture production, which is marked

by limited land resources and access to technology. The country is home to nearly eleven million people, 87% of which depend on agriculture as an economic activity. Despite this importance, agricultural development, food production in particular, continues to be limited by access to credit, a shy private sector with too few players with access to capital, and a missing strategy to organize and integrate basic production to processing and marketing. Universities graduate hundreds of new graduates every year who are not aware of opportunities in the agriculture sector; rather, even those studying agriculture opt out for jobs in more "comfortable" urban environments. The lack of entrepreneurial skills across the board is not only applicable to agriculture, but it is where the biggest gap is felt. Every stakeholder we interviewed felt university graduates possess plenty of theoretical knowledge but are sorely lacking in applied experience and the practical skills needed to drive Rwanda's agri-business sector forward. Lack of confidence in applying business skills increases risk aversion and diminishes the possibilities of convincing investors. With few exceptions, the potential to create companies by associating and organizing farmers around key investments is not taking place. Where initiatives are present, strong government involvement is the norm (e.g., the dairy and livestock sector). Coffee is a special case because of its size, but it has taken over a decade of constant and effective work to bring the coffee sector to where it is today.

Most key informants are convinced that organizing farmers pays off as part of functional and profitable business ventures. But, they also know it can be an expensive and risky ordeal for the state as well as for national and international entrepreneurs. Counting on better human resources is necessary for risk to be better calculated and for business ventures to be better managed. Here is where the Master's in Agribusiness in the Women's Leadership (WLP) Program plays a role.

Beyond the clear message that the University of Rwanda is on the right track in developing a new MSc degree program, we were able to learn details on the types of skills that employers especially value. There were several consistent refrains. Foremost, there is a critical need for people with analytical skills. Everyone seemed to have someone on their staff that was capable of putting numbers in boxes. But, employees who could see patterns, problems and opportunities in those numbers are rare and highly valued. People who can take that analysis to

the next level and make predictions and decisions are more valuable still. This message validated the core foundation of the proposed MSc program.

In addition, there were some unexpected findings. Virtually everyone we met with emphasized the need for training in "soft skills." These conversations provided us with specific and very detailed direction for the professional development activities we had planned for the Career Development Office (CDO) at UR. There were two common refrains: 1) the need for technical writing skills; and 2) confidence and leadership. The issue of confidence came as a bit of a surprise, but it appears to be a serious issue particularly for women. Employers made it clear that even when women have the skills to do the job, they rarely have the skills to sell themselves or the confidence to take leadership positions.

Short courses or seminars offered through a Career Development Office to help build such soft skills are services that employers will value greatly. Special leadership and communication training will benefit our female students, our key constituents. Along these same lines, quite a few of the interviewees work in the import-export sector and have a difficult time finding employees with enough cultural facility to interact appropriately and effectively with people from the US, Europe and Japan as well as Rwanda. This goes beyond language skills and understanding this need helped us envision special training to offer in parallel with the formal degree program.

The needs assessment survey both validated and informed curricular development for the degree program. Furthermore, we took what we learned from employers and used that information to create access points where the private sector can engage with students, collaborate with faculty, keep programs up to date and relevant for employers and effectively transition students from school to work.

Fostering a living and dynamic private public partnership between universities and employers involves balancing the very different needs and expectations of three diverse constituent groups: the university, students and employers. The ultimate goal of the relationship is to ensure the employability of students and their ability to make a significant contribution to a rapidly developing society such as Rwanda's. Interactions with employers, ranging from the informal to official roles and responsibilities within the university are focused on: 1) creating a

feedback mechanism between the university and employers that allows curriculum and programing to be adjusted so that it remains relevant; 2) ensuring that students step into the workforce with the soft skills demanded by employers; and 3) building a relationship between students and employers early enough for a solid mentorship opportunity and easy transition to work.

Several training sessions for UR faculty and staff were conducted during the period of performance. These activities were undertaken with the goal of building capacity among UR faculty for delivering experiential learning activities and linking them effectively with the private sector. In addition, we worked on understanding the need for and delivering effective student services that reduce attrition and improve the employability of graduates.

Rukazambuga met with the following individuals on his visit and accomplished the following outcomes:

Christie Motley, Employer Relations Associate Director

Center for Advising and Career Development

509-335-9162, cmotley@wsu.edu

Discussed programs, services, resources, employer relations and strategies for developing a win-win program that is responsive to employer needs, benefits students and builds private sector relationships. They also discussed:

- WSU's CougLink, an online computer management system to network employers and students.
- Ms. Motley provided an overview of the National Association of Colleges and Employers
- How college career professionals and employers meet to talk about most needed qualities in graduates
- Top 10 qualifies employers seek in graduates (which was remarkably similar to the qualities articulated by Rwandan employers in the needs assessment survey)
- Career expo and CEA Technical Career Fair, history, purpose, structure and day of the event.

Stefany Unda, Student Affairs

Center for Advising and Career Development,

509-335-4005, sunda@wsu.edu

At the close of discussions, the following topics were chosen for student centered workshops:

1. CV and Resume development
2. Staff management: Personality, Motivation, Productivity and Morale
3. Strategic Planning
4. Networking session with employers
5. Interviewing skills – how to hire and keep talented staff
6. Work Life Balance for Parents

Dr. Rukazambuga also participated in a CDO information workshop with students that Stefany facilitated. This session focused on online and free resources. The experience inspired the idea to create an online portal for UR students linking them to free resources as well as building a library for the CDO at UR.

Finally, Ms. Unda provided an overview of the employer relations role of a strong CDO and discussed techniques for building those relationships.

Kim Kidwell, Executive Associate Dean of the College of Agriculture Human and Natural Resources (CAHNRS) , 509-335-4562, kidwell@wsu.edu

Dr. Kidwell shared her experience in building employer relations and engaging the private sector. She gave examples of how the college has responded to employer needs through curriculum changes and special programs. In particular, we discussed the iterative process of involving employers, in developing a handbook for managing high quality internships. As a result of the meeting, Daniel and Colleen decided to that the December program launch would be a perfect time to share the draft of our internship handbook with employers for feedback.

Colleen Taugher, Associate Director of Monitoring and Evaluation,
Office of International Research and Agriculture Development
509-335-2861
colleent@wsu.edu

- Setting up the CDO
- Plans for rolling out internships

- Employer Relations
- Detail on the MSU/WSU student visit scheduled for May 2014.

Dr. Rukazambuga met with WSU students interested in the experiential learning activity planned for May 2014. Daniel and Colleen Taugher co-facilitated this information session.

Major Results of the visit:

- Clarity on and a common understanding of the details of the MSU/WSU/NUR student experience
- Established goals and a work plan for CDO soft skills workshops for Spring 2014 facilitated by Stefany Unda
- Developed a short-term plan for employer engagement, which includes but is not limited to:
    - A short lecture series where Rwandan agri-business leaders can meet with students and share their experience
    - Involving employers in developing our internship handbook early in the process. Our first planned meeting with them should happen in December 2013.
    - Working early with employers and students in the MSc Agri-Business program so that students tie their thesis to a real business need in the company where they will complete their internship.
- We concluded with an expanded vision of the role and possibilities for the CDO

Assisting UR faculty in making a shift in their delivery methods from traditional "chalk and talk" to immersive-experiential learning models was a critical delivery demanded by employers.

Workshop Goals:

- Understand the value of experiential learning
- Be able to identify elements of high quality experiential learning programs
- Understand theories of EL
- Develop a roadmap for delivering EL at the University of Rwanda
- Be able to develop learning outcomes for EL

- Be able to assess EL activities

  Facilitators:

- Jim Lucas Ph.D. MSU
- Linda Gross Ph.D. MSU
- Colleen Taugher WSU
- Daniel Rukazambuga Ph.D. UR

Following the classroom work, we demonstrated the process by having the faculty participate in an experiential learning process themselves. We visited two employers, RAB to represent the public sector and H2O Venture Partners to represent the private. The participants were able to ask questions, interact and learn about the value of EL programs directly from employers. We closed by modeling the debrief that the team learned about in the workshop.

III.1.c November 2014 Student Advising Workshops Co-Facilitated with Colleen Taugher WSU and Linda Gross MSU

Workshop Objectives:

1. The most important goal of this session was to develop deep engagement on the part of the participants in 1) caring about the attrition problem; and 2) building creative involvement in solving the problem and staying committed going forward
2. Collaboratively building a road map for moving forward
3. Getting a good baseline of where we are starting
4. Tying it all to workforce readiness

A number of exercises were specifically designed to help the faculty see the situation and solutions from a student's point of view and to understand their responsibility for preparing students for the world of work. The team identified gaps in the current system and brainstormed possible solutions. We learned that the Food Science team is already doing excellent work in connecting their teaching to the real world through employer relations and engagement with the private sector in their program. They have a good model that could be emulated by other departments.

Figure 14: UR Faculty discussing the causes of attrition at the university before designing solutions

Another important aspect of the Career Development Office was the training of the new Director of Career Services at the CAVM, Mr. Mathias Ndizihiwe. The project guided Mr. Ndizihiwe in making employer visits – something he wasn't doing at all – relationship building, listening and bringing the information back as a liaison with the private sector. We also worked with Mr. Ndizihiwe in learning to Market the program – how do we talk about our students – brochures, employer relations protocols for staff and in how to keep track of communications – purchasing Zoho Connect contact organization software in order to support the work of the Career Development Office.

As part of the work of the Career Development Office, we helped the CAVM develop a student peer mentoring program. During previous trips to work with colleagues at University of

Rwanda, it was determined that students could benefit from additional support and development, in order to aid in their ability to persist. Upon further review, partners agreed that the most effective model of providing such support was through a peer-to-peer model, which could be supervised and coordinated by practitioners working with Career Services on each of the respective university campuses. From January 2015 through June of that year, student success and development professionals from Michigan State University worked with mid-level university administrators to determine the necessity and feasibility of a peer coaching program, where select student leaders would have the responsibility of working with an identified group of level one and level two students. These coaches would be expected to provide direction as new student transitioned into the postsecondary experience. They would also facilitate connection to university resources, assist in the development of language and general study skills, and assist new students in the acquisition of skills and behaviors required for their academic success and timely completion of their college degree.

Significant consideration was given to the identification of the student population, who could potentially gain the most from the coaching program. Initially, colleagues struggled with the idea of defining a subset of the student population on their respective campuses as a particular group of focus, as many of them understood the needs and potential benefits of such a program for all students. However, after considerable discussion, administrators were able identify those students who would most benefit from the additional support provided through the proposed coaching program. While the planned structure of this program allows for some dissimilarity in the student population of focus (for example some campuses will focus on level one students and other on level two), in order to address the diversity of the five campuses, the general criteria for student participation is singular. It was agreed that students who met any combination of the following criteria would be invited for participation in the coaching program:

- Students identified as low-income
- Students who have not had the benefit of college preparatory classes, particularly in math, science and computer skills
- Students who require support in English language skills

It was also determined that coaches would work with a limited number of students in their respective groups. The established number of "beneficiaries" (which is a term created by colleagues at the University of Rwanda to describe program participants), was estimated to be 10-12 students per coach, which would potentially benefit 280 – 330 level one and level two students across the five campuses of the University of Rwanda.

The primary function of the coaching program is to aid in the transition and development of new students, with a specific focus on those who are likely the most vulnerable in the university environment. Tangentially, additional objective would include the development of a community of scholars, which a significant amount of American higher education literature suggests is critical in encouraging active engagement within the university community, and in turn facilitates student persistence. A final objective would include the development of skills and academic behaviors which will be facilitate, and/or modeled by peer coaches. As evidenced by some of the previously stated criteria for student participation, it is expected that students will develop a level of proficiency in both their English language and computer skills. Study skills, time management and goal setting are also skills that participants in this program will develop, which is critical for students at the University of Rwanda in particular, as colleagues and students often expressed competing priorities (ex. financial and familial priorities) and the limited access to resources that support student learning.

The process of establishing a Career Development Office for the program involved much more than simply implementing new programs. It demanded a culture change at the university to include ongoing and collaborative conversation between the three key constituent groups: 1) university faculty and administrators; 2) employers; and 3) students. As far as we understood, there has never been an opportunity for these three constituent groups to come together to share perspectives and find solutions for working together effectively. The goals of the event were to:

1. connect UR-CAVM Academic leadership to stakeholders
    a. Increase understanding of what each player wants out of the program
    b. Develop common language, goals and plan for working together
2. Strengthening student internship programs
3. Provide leadership on managing internships for other colleges within UR

As a result of this effort, we received outstanding feedback from the participants who communicated a strong desire to continue this conversation. One employer, Therese from AgroPharm Africa, was so impressed with one of the students who spoke at the event that she hired him. The young man walked into a position at AgroPharm's plant in Musanze directly following graduation. A total of 45 people participated and 36 filled out an evaluation form with the following results:

Question 1: After this session, I have a better understanding of another stakeholder's point of view and concerns

a) Not at all - 0
b) Somewhat - 0
c) My understanding has changed - 28
d) My understanding has changed a lot – 8

Question 2 I plan to change the way I work with students, employers or university staff based on what I learned today

a) Not at all – 2
b) Somewhat - 2
c) I will make some changes - 17
d) I will make significant changes – 15

It bears noting that both of the individuals who indicated that they do not plan to make changes, marked up their evaluation form with a list of changes that they are going to make.

Question 3: I found this workshop helpful

a) Not at all - 0
b) Somewhat - 3
c) Yes -10
d) Very much – 22

A majority of the evaluation forms included requests for more such discussions and we remain optimistic that the UR will continue this valuable conversation now that the program is closed.

As part of the career development work, the project partnered with Kepler (www.kepler.org), in Kigali to:

1. provide soft skill training for students in the MSc Agri-Business program as demanded by employers. The goal of this training was to prepare students in the program for a transition from being students to being professionals;
2. and, provide training for Mathias Ndizihiwe, UR Director for Continuing Education, Faculty Development and Student Support Services and his staff. The goal of this training was to leave UR with the capability to continue offering back pack to briefcase services for students after the close of the program

Soft skill training for MSc in Agri-Business Students:

The Kepler team met with students in the MSc program for three hours every Saturday from March 13-June 27 2015. The program was based on Kepler's Professional Competencies curriculum, which focuses on soft skills that students need in order to be successful in their future careers. These include: accountability, resourcefulness, attentive listening, giving and receiving feedback, and setting SMART goals. Out of 24 students, 22 attended a minimum of one class with an average attendance rate of 54%. Two, William Niyitanga and Emmanuel Imanizabayo, did not attend at all because they are 7th Day Adventist and are not available on Saturdays.

From these trainings we were able to glean student reflections on the usefulness of the training. Included below are some examples of what the students said:

Comments and Suggestions of Students Taking Soft Skills Training
"Learning soft skills as been an instructive experience for me. Some basic notions that are most of the time neglected (sic), appeared to be important. While taking decisions and setting goals, I learnt that every detail counts in professional competencies. I also learnt doing things perfectly like while giving feedback, making presentations, receiving feedback. We learnt attitude that characterizes leaders (good leaders); we learnt how to behave in teams either on work or in class."

***Suggestion**: "I would like to have a certificate to certify that I undertook the course, and have those competencies."*

"My reflection on this soft skills, it is very helpful because I gained a lot of soft skills to add to the hard skills which will help me to get the attitude to improving professional. I learnt the good way to give and receive feedback which I did not know before. In short those soft skills will help me to become a good leader and to work with others in the society."

***Suggestion**: "I am suggesting to continue to give this course to the others students, but it will be good if those soft skills have a credit so that the student can get a marks of or if this is not possible, can we get a certificate [that] shows that we have done the course of soft skills?"*

"In this course of soft skills I have learnt many things that will help me in my life, for example, making decision, making presentation, how to give feedback, how to set goals, how you can listen to others. All these have shown me what I can do even at my home, how I can listen to my kids is different from how I can listen to adult people. Even at my work, how I can make a good presentation, how I can take a speech without fear and with confidence."

***Suggestion**: "It could be better if they have given us certificates to show that we have studied "SOFT SKILLS" because no certificate we are as those who didn't study"*

"After completing this soft skills I know how accountability and grit contribute to my life and work, how I can set goals and achieve them on time, giving feedback, receiving feedback, being resourceful, personality traits--by comparing my personality traits against others in my social life and in work. How to make an effective presentation. All this will help me to compete for job."

***Suggestion:** "It could be better to add this course on our curriculum."*

"The program was somehow interesting because I studied some useful materials lie approach and receiving a feedback like in questionnaires or surveys, how to work with teammates and succeed"

Suggestions:

- *"Changes are first teach students and give them some information before giving assignments or exercises."*
- *"Doing a short summary of the course exercises."*
- *"Stop coming with Kepler students to teach master's students."*

"After completing this soft skills, I will be able to pass interview smoothly because I have learnt different situations. Besides to this, I will also achieve my objectives easily due to different soft skills gained. Many thanks."

***Suggestions**: "In order for this course to be clear in future, internet connection is needed within the classroom to students so that they can navigate easily."*

"First of all the, this soft skills help me for my day to day living activities personal and professional:

- *It helped me to exclude conflict among the stakeholders.*
- *It helped me to know the best time for each activities, to think about planification, of my activities, to respect the working plan, to know how could I live with my surroundings, to respect the hierarchy at work, to be organized at work, to know how could I choose the most important activity that could I do before others, to know how could I manage my life for having safe life.*

Suggestions:

- *"Try to change the teaching methodology, because if you told me that you'll teaching me without doing exam, I can't attend the course every day. I would attend it because I obtain time."*
- *"To put that course at defined time, because we studied it long time (many days) with short hour (few hours per day)."*

"In this course, I learnt different topics that were very important in my everyday life. Some of them are: giving and receiving feedback, difference between bosses and leaders, preparing a presentation, speaking in public, etc. All these subjects empowered me and increased my confidence and I am forcing myself for amelioration (I feel like it is happening flexibly). I even hope that when I will get a job, I will be behaving in a right way, thereby, applying "prosocial behavior" as a course as learnt."

Suggestions:

- *As recommendation, I suggest that the course should be given to students in undergraduate studies. I think this should be more helpful than giving it to those in masters."*
- *"I also suggest that those providing the course (lecturer and assistants) should have a higher or equivalent degree than those to whom they are giving the course."*

When we initially planned soft skill training programs for students through Kepler's service, we were mindful of leveraging their expertise to provide enough capacity building for the staff in the Office of Continuing Education so that UR could continue to offer such services going forward after the close of the grant. Discussions took place with Mathias Ndizihiwe about the timing, content and structure of such offerings. Unfortunately, significant delays in hiring Mathias' staff, difficulty aligning time and space for workshops and conflicting priorities at the college level all conspired to derail this training. This was part of our sustainability plan and a good idea that, unfortunately, never came to light.

As one of Rwanda's most critical agricultural commodities and as a crop with a complex and challenging value chain, coffee was chosen as a sector of focus for two immersive

experiential learning programs involving students from the University of Rwanda, Michigan State University and Washington State University as well as faculty from all three institutions.

Goals of the program:

1. provide an immersive, hands-on opportunity for students to apply theoretical knowledge from the classroom in a real world setting
2. provide opportunities for UR faculty to practice mentoring an guiding students in the unstructured environment outside of the classroom
3. build relationships with private sector employers in a critical commodity area
4. create a space for an equitable exchange of learning, culture, language and technical skills between Rwandan and American students

Structure:

1. The Washington State University team worked closely with the coffee industry to identify economic challenges within the business. These issues were then presented to students as research topics.
2. American students were paired with their Rwandan counterparts on research teams where they worked together to conduct background research on their topics, develop a qualitative research design, complete IRB approval within their respective institutions, conduct the research on the ground in Rwanda, and complete a research paper including data analysis results and recommendations for the industry.

Throughout the program, many employers expressed an interest in working directly with students well in advance of any internships. Some of this interest appears to come from a genuinely altruistic desire to give back. But, in many cases, employers felt that internship experiences would be better for everyone involved if they had a chance to establish relationships with students in advance and conduct some pre-training. A simple way to get started is for employers to come to campus for an afternoon or even a few hours to give a talk on their business practices, conduct a question and answer session with students and provide mentorship through the conversation. This is an excellent entrée for students to practice their networking skills and for the university to close the loop between students and employers.

Mathias Ndizihiwe, The Director for Continuing Education, Faculty Development and Student Support Services at the CAVM-University of Rwanda was very much a part of many conversations with employers expressing a desire to participate in this way. He finished the program with an understanding of its importance and a plan to implement it easily. A space has been identified and having these conversations with students should have little to no cost. It is now simply a matter of scheduling the events and making arrangements with the employers.

Colleen Taugher and Mathias Ndizihiwe worked together to develop an online system of managing employer contacts and a history of our interactions that he and his staff can access either with a computer or on their smart phones. The previous system involved a paper file on the Busogo campus that was very difficult to access without advanced planning and that did not keep records of UR interactions and plans with private sector employers. It remains to be seen if the Career Development Office staff will make the shift away from the old system to a more dynamic and shared electronic system. But, they do have the capability.

Digital Opportunity Trust (DOT) is a leading international social enterprise headquartered in Canada with local operations in seven countries around the globe, including Rwanda. Harnessing the power of youth, DOT Rwanda transforms young people (DOT Interns) into leaders of change as they facilitate technology, business, and entrepreneurial learning experiences to people in their own communities. DOT's unique youth-led programs empower people living in communities that are developing, in transition, or under stress with the confidence to use technology for entrepreneurial, community, educational, and personal development. DOT was an early collaborator with interest in taking on UR students as interns. Following their participation in the Employer Listening Session, local Country Director Violette Uwamutara, expressed a strong desire to collaborate in building capacity with the Career Development office. She initially offered to place two of her own students with Mathias as interns to help bolster the capacity of his office and open time for him to have more time with students. In addition, DOT will hire UR students in their leadership intern program. This offer eventually grew into a plan to establish a full service Career Center at UR's CAVM. On May 11, 2015, addressed students at the second annual career day where they discussed the details and importance of the proposed center. More information is available on DOT Rwanda's web page:

https://rwanda.dotrust.org/blogs/publicnews/dot_rwanda_unveils_plan_to_establish_career_center_at_the_university#content-head

One of the biggest challenges in rolling out a successful internship program is managing expectations between three very different stakeholders with very different needs: students, employers and the university. The handbook is designed to simplify this exercise by making everyone's role in the process very clear and building in access points for communication, evaluation and adjustment (see Appendix E). The advisory committee received early drafts for feedback so that the handbook reflected the needs not just of the academic community, but of the employers as well. It is in the process of approval at the university and we expect it to be used widely, not just in the MSc in Agri-Business program alone.

The biggest challenge in building a solid Career Development Office and the requisite student support services lies in the fact that students are necessary to roll out such functions. While there a lot of effort was put into planning and training, at the end of the day, students were not enrolled in the program until the last four months of the period of performance. As a result, we were either able to pilot only a few programs while most of our plans are scheduled to be implemented after the close of the project. This raises concerns about sustainability, particularly around the internship program.

Fortunately, the internship is a requirement that is bundled into the credit-bearing portion of the degree program. Therefore, we feel confident that the internships will take place as scheduled and that the faculty involved will use the opportunity to apply what they learned during training and workshops. In addition, we left behind an Internship Handbook that is in the process of approval for adoption by UR and which has a local champion in Daniel Rukazambuga. He will continue to coordinate internship for the first cohort and apply the handbook as a part of his workload at UR (see Appendix E).

However, there are some factors that could negatively impact the sustainability and the long-term quality of the program:

1. If the program is expanded to include much larger numbers of students, the internship program as designed will be unsustainable.

2. The linkages between academic staff and private sector partners are new and fragile. More support and mentorship may be needed in order to sustain them. The Animal Science team in CAVM has done an outstanding job integrating employers into their programs and we remain hopeful that they can serve as models and mentors for the MSc in Agri-Business program.
3. The employers indicated concern on the number of interns they can accept each due to availability of good supervisors of M.Sc in agribusiness student interns
4. There is no accountability in place for faculty to create linkages with the private sector nor is there accountability to implement experiential learning programs. Faculty evaluation is focused more on test scores. Until faculty are evaluated and rewarded for the types of culture shifts we worked toward in this program, change will be difficult.
5. The career development office at CAVM is planned to have only one staff, which may be difficult for him/her to provide effective service for the whole college with four campuses.

There are other challenges as well. Funding is always an issue. The Continuing Education Office is very new. In fact all of the positions and hires are brand new and they are working with zero budget for employer relationship development. Meetings with employers to build those relationships have so far been subsidized by the WLP. Some very strong partnerships developed out of those conversations and will add to Office's capability going forward. But building new partnerships going forward without financial support to do so will be difficult.

Likewise, funding for faculty and Career Development staff to make site visits and follow up contacts on internships is low to non-existent. This could negatively affect the quality and sustainability of the internship program.

With all of the new skills and resources we have been providing UR through the life of the project, we've really been advocating for a serious culture change for faculty. Although some departments do interact with the private sector to some degree, the level required for the success of the formal programs we are initiating is very new and unfamiliar. Sustaining the change for success will require a real culture and priority shift on the part of the university.

In what follows, we give some suggestions for ways in which the program could move more assertively into the future.

1. The first cohort of MSc Agribusiness should apply the internship handbook and gain their experience for further improvement.
2. The UR project coordinator (Jean) and CDO (Daniel) should continue with the first cohort of M.Sc. agribusiness and test the skill gained during capacity building, if successful, it can be adopted for UR wide
3. UR should support student interns using a part of tuition fees, ie, supporting internship should be a part of breakdown of tuition fee
4. The WSU and MSU project team may volunteer to give advice whenever the need arises during execution.

A final output that we achieved during the lifetime of the project was the creation of the Advisory Committee in fulfillment of output 1.3.3 (see Table):

- Output 1.3.3: Establishment of an advisory committee, including university and external stakeholders, for the development and delivery of the agribusiness master's program.

The Advisory committee proved to be instrumental in the course of the development and the early stages of implementation of the Masters of Science in Agribusiness program. They played several roles that both advanced and enhanced the program. Briefly, these are some of the roles that the Advisory Committee members played:

Table 1: Advisory Committee Members

Nº	Names	Institution/Profession
1	Dr. GAHAKWA Daphrose	Director of Research, Rwanda Agricultural Board Public Sector
2	MUKARUGWIZA Esperance	AGRI-HUB/SNV NGO Sector
3	SERRACIN Mario	Agronomist for Rogers Family Roasters Private Sector

4	BAZATOHA Adolphe	Member of Parliament Public Sector
5	NSHIMIYIMANA Calliope	Care International NGO Sector
6	Dr. TWAGIRISHEMA Ivan	Rwanda Investment Group Private Sector
7	Dr. NDAMBE Magnifique	National Agricultural Export Board Public Sector
8	Representative from the Ministry of Gender	Ministry of Gender Public Sector
9	Dr. NGABITSINZE Jean	Chairman Department of Agroeconomics and Rural Development University of Rwanda
10	One faculty member for UR Huye campus	Professor Charles Bucagu Dean, School of Agriculture University of Rwanda
12	One faculty member for UR Musanze campus	Dr. Laetitia Nyinawamwiza Principal of the College of Agriculture, Animal Sciences, and Veterinary Medicine

- The Honorable Adolphe Bazatoha, Member of Parliament, was instrumental in advancing the program approval through the latter stages of approval by the Higher Education Council. When the program approval was delayed, the Honorable Mr. Bazatoha personally went to advocate on behalf of the program before the Director of the Higher Education Council.
- Dr. Ivan Twagirishema brought the internship needs of the Masters of Science in Agribusiness program to the Chamber of Industry in Rwanda, which he serves as President. He also on two occasions served as a panel member in forums for faculty and leadership.
- Mr. Mario Serracin was instrumental in providing research sites for the international intership program. He also served as guide and instructor for the internship students from MSU, WSU, and UR.

- Ms. Esperanze Mukarugwiza, Director of Agrihub, brought the needs of the program to her Agrihub network, the largerst agricultural Network in Rwanda: https://www.facebook.com/agrihub.rwanda.
- Dr. Magnifique Ndambe twice hosted international intern groups at his office at the National Agricultural Export Board and once hosted a faculty group for an experiential learning exercise.
- Mr. Calliope Nshimiyimana brought the internship needs before the association of non-profit organizations of which he was a part, served on a panel for one of the faculty workshops, helped craft the admissions policy for the Masters of Science in Agribusiness program, and reviewed both the internship handbook and the Masters of Science in Agribusiness curriculum.
- Dr. Daphrose Ghakwa served as a panel member for one of the faculty workshops and gave input into the admissions policy for the Masters of Science in Agribusiness program.

Figure 15: Advisory Committee Members Meet with the Minister of Agriculture, the Honorable Dr. Gerardine Mukashimana

Although relationships with the Committee remain strong, we were unable to recruit a member from the Ministry of Family and Gender, as had been our original intention.

Objective 2: Promote and support women's access to graduate education in agricultural sciences.

Central to the project effort was the design and implementation of a Masters of Science in Agribusiness. The Masters program was to be the platform on which the promotion of women in the agricultural sciences was built. We used three strategies to achieve this objective. One was the design of a gender sensitive Masters program that would create a classroom environment and an institutional culture that would recognize and appreciate the unique contribution of women and would cultivate that contribution in and through the promotion of women in the program itself and beyond in the agricultural sector of Rwanda. We have described in detail above the design process. The second was the development of a gender sensitive admissions policy. Written into the program itself was the policy of 50% women's admission. The policy was applied to the first cohort of students, resulting in 13 female students and 10 male students currently enrolled in the Masters program (see Appendix F for the names of the first student cohort). The third was the awarding of 11 full scholarships to the top women applicants for the program based on a scoring system that took into account GPA, strength of references, and responses to an essay question regarding their view of the importance of women's leadership in agriculture. These efforts are reflected in the outcomes grouped under this objective.

Outcome 2.1: Barriers to women pursuing advanced degrees in agricultural sciences are reduced.

Utilizing input from the initial needs assessment, focus groups interviews with students, and gender experts at UR and MSU, the program team developed a gender policy for admissions into the M.Sc. program and put into place a delivery format/schedule to improve access for women by accommodating women's multiple roles as family members and workplace professionals. The project team also took a pro-active approach to target women in their recruitment efforts. 23 (13 women/ 10 men) students were enrolled in the program.

In fulfillment of output 2.1.1, the project intentionally developed non-traditional ways in which to deliver program content:

- Output 2.1.1: Flexible delivery options that make master's coursework accessible to working women and women with family responsibilities are identified and institutionalized.

The first was to offer a non-residential program that was available to students outside of the normal classroom hours. The first cohort was constructed using a weekend schedule that has students meeting for classwork on Saturday afternoon and Sunday afternoon. Saturday mornings are kept free for soft skills training, and Saturday evening is used for group work. Sunday morning is left open for family and church, and Sunday afternoon classes resume. In combination with a modular system, this allows students flexibility and allows women, especially, the opportunity to use their weekends, when other family members are home and available for child care, to complete their studies.

The second strategy for making the program available through non-traditional means is the development of on-line versions of Masters courses that would allow students to complete coursework on their own schedule. This effort is just in its infancy. Two workshops were held in the second and third year of the project in April and November 2014 respectively. This was followed by an intensive 8 day workshop at the end of the project where the faculty organized, enhanced, and uploaded their courses to make them available on-line. A full report of the activities undertaken in conjunction with the e-learning workshops is found in Appendix G.

- Output 2.1.2: Affordable educational financing options for women are made available.

Eleven scholarships were awarded to the top women applicants to the M.Sc. program. This scholarship program increased access for women graduate education at UR. The project team has also consulted with external stakeholders to help identify scholarship funding for future M.Sc. students.

As part of the project objectives, we trained 28 students in student peer coaching. The purpose of the peer coaching program was to provide support for first year students as they became adjusted to the demands of a new academic environment. This was in partial fulfilment of output 2.1.3:

- Output 2.1.3: Mentoring programs for women pursuing a graduate degree in agricultural sciences are established.

Figure 16: Dr. Genyne Royal Introduces Students to the Peer Coaching Concept

The goal was to have each of the Masters students under some form of mentorship, but especially, for those women who made up part of the Masters program, to have personal mentorship that would help them acquire the necessary confidence and sense of purpose to make them successful in the program. With the late start of the Masters of Science in Agribusiness program (March of 2015), it was impossible to have the student mentoring system fully in place and functioning. As a result, we were only able to accomplish the training of the students peer

coaches. The mentoring system will go into effect in September of this year, at which time all female students will be part of a student mentoring group.

Objective 3: Extend UR's knowledge about, and women's expertise in, agricultural sciences to the community.

This is the one project objective where our performance was less than desired. A couple of circumstances conspired to make it difficult to achieve this objective. First, we did not have a fixed faculty with which to work. The project began under the former NUR. In September, 2013, however, the former NUR was dissolved and was merged into the new University of Rwanda. The result was that we were working with a new faculty. When the project initiated, the Dean of the Faculty of Agriculture of NUR was acting as the project Principal Investigator on the UR side. This facilitated our relationship with the faculty. Her departure in October of 2014 made it more difficult for us to motivate faculty that were not directly related to the project to carry out project activities. In the end, very few project related extension activities were carried out. Only three of our activities qualified under this objective, in partial fulfillment of output 3.1.1

- Output: 3.1.1: New extension activities that improve technical knowledge among external stakeholders.

On January 19, 2014, the project held a one day training for the seven members of the Advisory Committee. The Advisory Committee is made up of external stakeholders from the public, private, and NGO sector. On January 23, 2015, the project conducted a public launch of the Masters of Science in Agribusiness program. The launch was attended by approximately 100 people, most of them external stake holders. And on April 1, 2015, the project conducted an employers listening session at which some
26 external stakeholders were present.

Section 3: Sharing Learning

3.1 Challenges and solutions.

The partnership had to overcome several major challenges over the course of the project in order to deliver on project objectives that we describe briefly here.

3.1.1 Institutional Merger and Program Approval

Shortly after the completion of the curriculum design process and immediately after the approval of the Masters program by the Academic Council of NUR, the seven public institutions of higher education were dissolved and were merged into a single public institution now called the University of Rwanda. Although we had been assured that the approved program would be advanced to the Higher Education Council without delay, it would be nearly a year and a half before the program finally was approved and more than a year and a half before the program was opened to accept students. These delays caused no small amount of turmoil and required extraordinary effort on the part of all parties involved to finally gain state approval for the program. The delay deeply affected those project objectives that assumed the presence of a fixed faculty and students in the Masters program. As a result, parts of objective 2 were affected (mentoring for female students became almost impossible since female students were identified only three and one half months before project close), and objective three became impossible (extension efforts on the part of the faculty became almost impossible since faculty had not yet been released to work with the program since the program was not yet open).

As was noted, by the end of the project we were able to gain program approval and classes were finally opened on March 11, 2015. Our extension efforts were minimal as a result, and we were only able to build the platform of a sustainable student peer mentoring program before the end of the project.

3.1.2 Lack of support from the College of Agriculture, Animal Science, and Veterinary Medicine (CAVM).

Although one would expect that the administration of the CAVM would be supportive of the implementation of such a key program, we instead were met with ambivalence and at times open opposition to program implementation. We are not certain of the reasons behind these actions or lack of actions on the part of the upper administration of the College. The result is that many of our project related activities were repeatedly delayed and undermined by the upper administration. The most important of which was the program approval.

Over time, after continual efforts to maintain open communication with the College administration, the relationship slowly approved. We were able to win the confidence and support of the Principal and her staff, but by that time the project was nearly over and a lot of needless waste of time and effort had occurred.

3.1.3 Lack of coordination with other university entities:

The newly merged University of Rwanda has broad capabilities but many of them were unknown to us over the life of the project. For example, we learned only after the fact that the university has a Center for Instructional Technology (CIT). This is in part due to understandable unawareness on the part of our project partners as to what exactly was available in the university after the merger, but also due to a singular lack of curiosity on their part. As a result, some of the main components of this project remain unattached to the rest of the university, for example, gender (there is a gender center in the university), e-learning (the above mentioned CIT). Career development services (we understand that there are efforts in several of the colleges underway), pedagogy (we learned only in the last month of the project that there was a center for teaching and larning housed in the College of Education).

3.1.4 Project Leadership

We had structured our capacity building efforts in such a way that it would result in a transition of leadership in this project from the partner institution (MSU) to the host institution (UR). Over the course of the project we found the opposite. Our host institution was increasingly inactive in project leadership as the project went on and relegated important decisions to us at MSU. This was due in part to the fact that three of our project personnel at UR ended up leaving the project and, in spite of our repeated pleas, were never replaced by the College, namely, the Principal Investigator, the Gender Coordinator, and the Financial Officer.

This produced a backlog of work and led to near paralysis at certain points. In order to remedy the situation, MSU took on more of the responsibility for project implementation, became responsible for expending more of the project budget, and worked directly with other university entities in order to accomplish project related tasks. The situation was far from ideal, but under the circumstances, we felt that we did not have any alternative.

3.1.5 Paralysis on the part of project personnel.

Whether from fear of reprisals, misunderstanding of rules and regulations, or just plain inertia, it was difficult at times to accomplish even small project related tasks. Anything that requires university clearance became slow, laborious, and uncertain. For example, while hosting two workshops in country in two successive months, the first workshop is only two weeks away, and we had not yet received "mission" approval for the participants. At one point we had to dismiss one of our project personnel due to an inability to work cooperatively with the rest of the project team. These were just symptoms of far deeper issues of institutional culture that, unless remedied, will continue to produce difficulties in the delivery of even basic services.

3.1.6 Financial structure.

Throughout the life of the project, the financial structure of the university was slow and unresponsive. Several times we reached the point where the project account in Rwanda showed a zero balance due to 1) failure to submit receipts in a timely manner, 2) failure to submit adequate

supporting documentation, 3) failure to respond to information requests in a timely fashion. Although correspondence with the fiscal officer has been copied to project leaders in Rwanda, they did not take any initiative to respond to accounting needs unless prompted. Even now, at the close of the project, we are facing inexplicable delays in basic documentation, some of which threaten the payment of important project receipts. For example, it took over three months to get a simple certificate of audit signed by the Deputy Vice-Chancellor (DVC) for Finance and Administration even though 1) documentation and detailed explanations of the meaning of the form and the instructions for filling it out were sent to his personal email; 2) follow-up emails were sent to his office and to the project coordinator in Rwanda. The MSU project manager went to the office of the DVC in order to personally deliver the forms, explain their importance, show them how to fill them out, and followed up with several emails not only to the DVC of finance but also to the UR project coordinator. In spite of all these efforts, it was not until the DVC was confronted in front of the Vice-Chancellor regarding the inexplicable delay in signing the papers that they DVC finally relented and agreed to sign the forms. In the meantime, the project account showed a zero balance and project activities had to be paid for through cash advances. At one point, MSU project staff were carrying over $50,000 in cash in order to support project activities in Rwanda. And, as of this writing, a contract amendment that would allow the payment of the tuition of the eleven female students who received scholarships has yet to be signed, putting in jeopardy not only the studies of the eleven students, but even the existence of the program itself, since the program would have to close without those eleven students enrolled.

Although we have attempted many different approaches in order to solve the financial structural issues with UR, the issue remains, as of this writing, unresolved. We have suggested to UR leaders and continue to advocate for the decentralization of financial decision making. It is not possible for one person to give oversight to so many diverse financial activities. It would be in the best interest of the University to assign financial officers to the oversight of project funds and to do periodic audits of project activity, but to allow for a diversification of decision making authority throughout the financial structure. This applies not only to project funds, but also to the financial structure of the entire University. We have repeatedly seen, for example, College activities curtailed or cancelled due to the untimeliness of financial authorization. The University

would do well to reexamine its entire financial oversight system. The decision-making authority needs to be decentralized.

3.2 Lessons learned and best practices.

Throughout the life of the project, the learning was constant. In what follows, we share some of our learnings.

3.2.1 Get Buy-in Early

The structure of the Higher Education Partnership granting process did not allow for communication between the potential partners during the grant proposal phase. The result is that much of the genius and core design of the project was done in isolation from our Rwandan partners. Throughout the project, we felt that we were in the disadvantageous position of having to convince our project partners that the project was shared by both of our institutions. We were in the unenvious position of having to take the initiative and the lead in most project activities. Although this was called a partnership, there is no doubt that we were the active partner and UR was the passive partner. This is a cross-cutting lesson, affecting all project activities. In the future, such partnerships should be of joint design from the outset.

3.2.2 Lay Down Financial Ground Rules and Stick to Them.

We made some assumptions about the financial structure of our partnership early in the partnership process that, over time, proved not to be true. There were some basic contractual issues that should have been clarified early and, because they were not, became a constant source of financial friction. First, payment should have been for hours worked rather than salaries. There seemed to be an expectation that salaries would be paid regardless of whether the work was performed. We should have made clear from the beginning that pay was for work and that time sheets would be audited before payment was made. Also, we should have made clear how

financial decisions were to be made and should have had contingency plans in place for the event that project account was not handled according to specifications. Because these mechanisms were not in place, we have had no recourse when things were not properly managed.

3.2.3 Define How Project Staff Will Be Hired, Evaluated, Removed, and Replaced

When personnel crises arose, some around poor performance, some around abandonment of post, and some around replacement of those who had left, we found ourselves at a loss for how to replace those personnel. It was unclear who had the authority to hire, fire, and replace project personnel. In the future, these processes must be defined and in place before the project begins.

3.2.4 Cultivate Strong Relationships with Stakeholders

One of the decisions that proved, in retrospect, to be most important, was the appointment of the Advisory Committee. Giving stakeholders a say in the direction and execution of the project gave us strong support from a variety of sectors. This support proved vital in the end in that they were, more than any other single factor, responsible for winning program approval for the MSc program.

Section 4: Sustainability

Since the beginning of the project Michigan State University (MSU), together with its project partners, the University of Rwanda (UR) and Washington State University (WSU) have had in mind the longevity of the project goals beyond the span of the project timeline. These efforts can be divided into two categories: 1) those sustainability structures that were part of the project design; and 2) those sustainability efforts that were added in response to circumstances.

4.1 Sustainability Structures That Were Part of the Project Design:

Some of the sustainability structures were already part of the project design. These were mostly efforts at capacity building carried out with UR academic and non-academic staff.

4.1.1 Official Approval and Implementation of the Masters of Science in Agribusiness program

Getting the Masters of Science in Agribusiness program approved and into the existing structure of the university was a high priority for the project team. We focused our efforts in the first year and a half on moving the program proposal through the design phase, international and regional review, gender review, through the academic approval processes of the university, the Higher Education Council (HEC), and the President's Cabinet. It was the university approval that proved the most difficult of these. Although the program was approved in August of 2013 by the former NUR, the failure of the leadership of the former NUR to forward the approved program to the HEC resulted in more than a one year delay as the new UR struggles to define its processes and lines of authority. Final approval did not come until December of 2014.

4.1.2 Advisory Committee

Already in the design stage, we recruited high-level members of the stakeholder sectors (public, private, and NGO) to form an advisory committee for the MSc program. The advisory committee consisted of two members of the NGO sector (Compassion International and Agri-ProFocus), three members of the public sector (Director of Research at the Rwandan Agricultural Board, a Member of Parliament, and the Deputy Director General of the National Agricultural Export Board), and two members of the private sector (Rogers Family Roasters and the President of the National Chamber of Industry).

4.1.3 Pedagogical and Gender Training

In order to ensure that the program personnel were adequately prepared to carry out the goals of the program, we carried out an intensive program of training on a three core subjects:

4.1.3.1 Gender Sensitivity:

We trained program personnel on the integration of gender into all aspects of the program design and delivery.

4.1.3.2 Active Learning:

We trained program personnel on the use of active learning in and outside of the classroom.

4.1.3.3 E-learning:

We assisted the program personnel in creating on-line versions of their courses so that a digitized version of the program will be ready for future use.

4.1.4 Administrative Training:

We worked with University administrators to develop their leadership skills. We understood that the MSc program could only be as good as the system in which it was embedded. We worked with the top 65 administrators to improve communication, team work, time management, and decision making.

4.1.5 Seed Grants:

We hosted two joint research symposiums in order to motivate joint research efforts between US researchers and their Rwandan counterparts. We successfully implemented four

grants that will lead to on-going research collaboration beyond the life of the grant. As we write, two of the projects are preparing academic papers to be published in peer reviewed journals.

4.2 Sustainability Efforts That Were Added in Response to Circumstances

Some circumstances were not foreseen, however, in project design and, so, responses to these circumstances had to be formulated over the course of the project in order to ensure project sustainability.

4.2.1 Credentialing:

When we realized that the opening of the program would be delayed and that the co-teaching model that we had developed for the project would be impossible, we turned our efforts to getting as many of the departmental teaching staff credentialed at the PhD level. Unfortunately, the College leadership did not see the urgency of this effort and did not support it. We were able to get one finalist approved through the Borlaug fellowship program, but in the end there was not institutional match. This puts the program at risk.

4.2.2 Integration into the College Structure:

In conversation with the College Principal, we agreed to work closely with her College Director of Student Services in order to make the internship program and the student peer coaching program part of the regular College structure. This effort has been very successful.

4.3 Opportunities and Threats

The program faces a number of factors, both internal and external, that have potential to either enhance the project in the future or cause its demise. They are listed below as opportunities and threats.

4.3.1 Opportunities

The *gender sensitivity component* has taken strong root not only in the program, but in the College as a whole. The Principal is a champion of gender inclusion and she will continue to protect this part of the program. The *active learning* has already made an impact on teaching methods college wide. This component has enough impetus to move forward on its own. The e-learning modules will be a tangible result of the program and will continue in use indefinitely. The leadership training is also already having its impact on the way the leadership across the university is being exercised.

4.3.2 Threats

The *lack of credentialed professors* for the MSc program will lead to delays and could threaten the program itself. This is compounded by high staff turnovers at the university. The *lack of bibliographical resources* is a threat to the program. Although project funds were allotted for both library e-subscriptions and computer equipment for the campus, the project partners never availed themselves of these funds and they remained unspent.

4.4 Sustainability Capacity.

4.4.1 Financial resource planning and management

The Masters of Science in Agribusines program garnered over 130 applicants nationwide. With such high demand, the College knows that it has the financial resources to maintain this program indefinitely. The management of resources is another question, however. Programs in the College and, for that matter, Colleges in the University, are not financially autonomous. That means that there are no guarantees that the resources that are generated in the program will remain in the program. Under the circumstances, there are no incentives to strengthen the financial position of any given program because there is no guarantee that funds generated by the

program will remain in the program. To this point, there is no clear evidence that the College is committed to the program and will deliver the needed resources to the program that would allow the program to survive, much less thrive. Chief among the needed investment are those for credentialing of academic staff. This will be a test of the Colleges resolve.

4.1.2 Non-financial resource planning and management

There has not been a lot of evidence to date of proactive planning and decision making. Most of the decisions seem to be made ad hoc and in response to crises. If the program is to thrive, there need to be concrete steps taken to make plans in a number of important areas: A clear staff development plan needs to be articulated, sponsorship for students has to be sought, relationships with employers need to be cultivated, an annual work plan for the Advisory Committee has to be forged, and recruitment plans for students have to be designed. These are just a few examples. There does not seem to be, to date, much of a planning culture in the University as a whole and the program reflects this deficiency.

4.1.3 Results-based management

There is not a culture of management by objective, much less results-based management in the program or in the University. Data is not collected and, in some cases, such as professorial evaluations, there is a reluctance or even open resistance to collecting data. As long as this is the case, the ability of the leadership to make evidence based decisions within a results-based framework is almost zero.

4.1.4 Program institutionalization

The program is well established in the institutional structure of UR. The program has been approved at the highest levels of government and is part of the regular curricular offering of the university. It will take some time for the department itself to establish itself. All of the faculty members are relatively new to the university. The bad relationship with the Principal at the outset

of this program sent the wrong message to the department personnel and there are some lingering suspicions and hard feelings as a result. Morale among department members is quite low and several are looking outside the University for other employment. It will require some effort on the part of the Principal to restore trust.

4.1.5 Stakeholder engagement

There is strong interest in and, to date, involvement in the program on the part of public, private, and NGO stakeholders. It must be recognized, however, that much of this involvement has been nurtured by international project staff. Although an effort has been made to include our Rwandan counterparts in this effort, there was no point at which the cultivation of these relationships was at the initiative of the Rwandan project staff. It is unclear to what level UR institutional authorities are committed to cultivating external relationships with the various sectors or to what extent they view their own students as stakeholders in this program. There is some risk of losing the gains that have been made.

4.1 6 Relevance of program

There is no doubt that Rwanda needs this program. It is the first of its kind, serves an important niche in the development agenda of Rwanda, and could serve as a catalyst for the Rwandan economy and support its national development goal of moving from subsistence agriculture to commercial agriculture in an orderly and socially enriching way. USAID and HED have done a great service to the Rwandan people by sponsoring this effort. There are still many obstacles to be overcome, but the potential of this program to make a singular impact on the future of Rwanda is there. It will now take the will and investment of our national partners to make sure that this potential becomes a reality.

Appendices

Appendix A: Baseline Study of Faculty Teaching Practices

Faculty Behavior Baseline Report

Women Leadership Project (WLP)
July 2014

CONFIDENTIAL REPORT. DO NOT REDISTRIBUTE.

Note: This report contains sensitive information, including survey data for which the respondents do not remain anonymous. The content herein is intended for target audiences in the Women's Leadership Project and should not be distributed without permission of the Project Principal Investigator.

Executive Summary

This document reports the findings of the Faculty Baseline Behavior Survey (FBBS) conducted for the Women's Leadership Project (WLP), a USAID funded Higher Education for Development (HED) project in collaboration with the University of Rwanda, with Michigan State University and Washington State University acting as partner agencies. The WLP provides support to mid-career professionals in agribusiness in Rwanda, with a particular emphasis on empowering women in this sector. The main activity of the project includes the development of a Master's of Science (M.Sc.) in Agribusiness at the newly integrated University of Rwanda. Partner organizations are currently working together to provide pedagogical, practical, and gender sensitivity training to key faculty members at the various UR campuses. These faculty members will be key instructors in the M.Sc. program set to launch in September 2014.

The purpose of this report is to provide information on the teaching behaviors of five core faculty members scheduled to teach courses in the first semester of the M.Sc. program. Each of the faculty completed a self-evaluation using the *Faculty Good Practices Self-Reporting Inventory* adopted from Chikering, Gamson, and Barsi.[1] In addition, five students from each of the faculty members' most recent courses provided feedback using the *Teacher Behaviors Inventory* developed by Harry G. Murray.[2]

Results

The results of this report suggest a mixed record on the part of the five inaugural faculty members in the WLP. In particular:

The faculty members appear to rate themselves well when it comes to several of the Seven Principles for Good Practice, including High Expectations, Cooperation, Active Learning, Time Management, and Diverse Talents and Ways of Learning.

The faculty members rate themselves comparatively lower in terms of Prompt Feedback and Student-Faculty Contact.

Students rate faculty members high on all categories in the *Teacher Behaviors Inventory*, but Clarity, Organization, Pacing, and Speech stand out as the higher performance areas.

Overall, the challenges that the faculty and students reported in their self-assessment highlight many of the known issues in the UR system, including high student-to-faculty ratios, high course loads for lecturers, limited infrastructure, and overall issues of workload for faculty members.

[1] Chickering, Arthur W., Zelda F. Gramson, and Louis M. Barsi. 1989. *Inventories of Good Practice in Undergraduate Education*. Milwaukee: Johnson Foundation.

[2] Murray, Harry G. 1983. "Low-Inference Classroom Teaching Behaviors and Student Ratings of College Teaching Effectiveness." *Journal of Educational Psychology*, 75:1, pp.138-149; University of Texas-Austin. (n.d.). *Teacher Behaviors Inventory*. Center for Teaching Effectiveness.

These findings will assist partners in developing follow-on pedagogical and capacity development workshops that will better address the needs of the faculty involved in teaching for the program.

Acknowledgements

This report would not have been possible without the generous contributions of several individuals and businesses. The project is indebted to the time taken by the five faculty members who participated in the survey - Jean Chrysostome Ngabitsinze, Martin Mugenzi, Alfred Bizoza, Fidele Niyitanga, and Solange Uwituze – and the 15 students who provided evaluations. A special thanks goes to the Project Coordinator Jean Chrysostome Ngabitsinze who took the lead on coordinating the surveys for the faculty members and provided contact information for student class representatives. Project assistant coordinator, Regis Nisengwe and the 3 student class representatives made the student survey meetings possible. Amanda Edgell coordinated most of the survey activities and conducted the data coding and analysis. Finally, Jambo Guesthouse Inn provided a calm, quiet environment for most of the students to complete the surveys.

Contents

1. Background

The Women's Leadership Project (WLP) is a USAID funded Higher Education for Development (HED) project in collaboration with the University of Rwanda (UR), with Michigan State University (MSU) and Washington State University (WSU) acting as partner agencies.

As an integrated capacity-building project, the WLP seeks to address the convergence of three of the Government of Rwanda's (GOR) central policy priorities: agriculture, education, and gender. Recognizing the direct links between agricultural development, improved capacity in African agricultural universities, and the promotion of women's leadership and empowerment, the WLP seeks to achieve lasting developmental impact through an integrated approach to institutional capacity-building.

The overarching aim of this program is to strengthen the capacity of UR to advance women's leadership in the field of agriculture. The WLP is a coordinated partnership model for building Rwanda's agricultural sector by addressing the gaps that UR has identified in their agricultural science training and research capacity. As such, the WLP seeks to build the capacity of the faculty and administration of UR in the College of Agriculture, Animal Sciences, and Veterinary Medicine (CAVM). Specifically, the project aims to develop an Agribusiness Master of Science (M.Sc.) degree program targeting mid-career professionals, particularly women in Rwanda.

The findings reported in this document are designed to provide information to key stakeholders and partners regarding the present teaching behaviors and capacity of five faculty members who have been selected to act as instructors during the inaugural semester of the WLP initiated Agribusiness M.Sc. program at the University of Rwanda. These findings will assist partners in developing follow-on pedagogical and capacity development workshops that will better address the needs of the faculty involved in teaching for the program.

2. Data Collection & Methodology

The target group for this report is five faculty members from the UR who are scheduled to teach in the inaugural semester of the Agribusiness M.Sc. program developed by the WLP. These baseline data are intended to gauge the lecturers' behavior and areas for improvement through future training and experience in the classroom. Data were collected from 10 July to 03 August 2014 from two primary sources: the five target faculty members and five of each of their students from the most recent course(s) that they taught.

2.1 Faculty Self-Assessment Survey

Self-assessments have been shown to be useful for encouraging more effective teaching techniques by increasing faculty members' awareness of their own limitations and areas for improvement. They can also be useful for designing professional development workshops and pedagogical training.[3]

Faculty members were asked to complete the *Faculty Good Practices Self-Reporting Inventory* adopted from Chikering, Gamson, and Barsi.[4] The inventory is based upon the Seven Principles for Good Practice in Undergraduate Education established by the American Association for Higher Education (AAHE) in 1987.[5] The survey consists of 63 questions in total. Each of the survey's sections includes questions regarding one of the seven principles: (1) student-faculty contact; (2) cooperation among students; (3) active learning; (4) feedback channels; (5) time on task; (6) high expectations; and (7) diverse talents and ways of learning. Faculty members rated themselves based on how often they engaged in certain activities and/or behaviors using a five-point frequency scale ranging from (1) Never to (5) Very Often.

The faculty survey was administered via email. The WLP Project Coordinator, contacted each of the faculty by email requesting that they complete and return an attached Word document of the survey. Response rate was 100% within 11 days of the initial email. Four of the faculty members responded via email; one provided a hard copy of the survey responses. In total, 9% of the data were missing due to refusal to answer specific survey questions. The majority of the missing observations came from four open-ended questions that required the faculty members to write a free response (17).

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[3] Chickering, Arthur W., Zelda F. Gramson, and Louis M. Barsi. 1989. *Inventories of Good Practice in Undergraduate Education*. Milwaukee: Johnson Foundation.
[4] ibid.
[5] Chickering, Arthur W. and Zelda F. Gramson. 1987 (Mar.). "Seven Principles for Good Practice in Undergraduate Education." *American Association for Higher Education Bulletin*, pp.3-7.

2.2 Student Evaluation Survey

While other methods for assessing faculty behavior and performance, such as classroom observation, have also been shown to be effective tools, this particular report opted for a student evaluation survey for two main reasons. First, student evaluations of faculty members have been shown to provide reliable information regarding the quality of teaching and the particular behaviors of lecturers in the classroom.[6] Secondly, the timing of the study took place during the summer holidays, making classroom observation impossible.

Five students from each of the faculty members' most recent courses were asked to complete the Center for Teaching Effectiveness (University of Texas-Austin) adaptation of the *Teacher Behaviors Inventory* developed by Murray.[7] The survey consists of 60 questions that assess eight factors: (1) clarity; (2) enthusiasm; (3) interaction; (4) organization; (5) pacing; (6) disclosure; (7) speech; and (8) rapport. Each question asks students to provide an overall rating of the faculty member's behavior based on a five-point frequency scale from (1) Almost Never to (5) Almost Always. Each question also asked the students to rate whether the faculty member should (+) do more or (-) less of a particular behavior.

The student survey was conducted in person. Due to the timing of the survey, during summer holidays, a convenience sample of students located in the Kigali area was used. The WLP Assistant Project Coordinator, contacted class representatives (C.P.), who arranged for five students from each faculty member. The first five students were surveyed on 24 July 2014. These consisted of students who had taken courses from two of the faculty in the Spring 2014 semester and one of the faculty in the Fall 2013 semester. This first cohort included 3 females and 2 males, all of which were August 2014 graduates from UR. The second group of students was surveyed on 28 July 2014 and consisted of students who had taken courses from one of the faculty members in the Spring 2014 semester. This cohort consisted of 2 females and 3 males, all of which were entering their fourth year in 2014/2015. On 30 July 2014, two additional male students were surveyed from the remaining faculty member. On 01 August 2014, an additional female student was surveyed from this class. Finally, on 03 August 2014, two more male students from the fifth faculty member were surveyed.

Each meeting with students took place at a conveniently located restaurant in Kigali. The students were given a soft drink as partial incentive for their participation. No other compensation was given (see 2.3 Data Collection Challenges). The WLP Assistant Project Coordinator and the WLP graduate student intern administered the survey. The students were informed about the nature of the survey and asked to give their verbal consent to participate. They were also provided brief instruction on how to complete the survey and informed that they

[6] Murray, Harry G. 1983. "Low-Inference Classroom Teaching Behaviors and Student Ratings of College Teaching Effectiveness." *Journal of Educational Psychology*, 75:1, pp.138-149; University of Texas-Austin. (n.d.). *Teacher Behaviors Inventory*. Center for Teaching Effectiveness.
[7] Ibid.

could refuse to answer any questions they were uncomfortable with. Throughout the survey, the students were encouraged to ask for clarification if they were confused about any of the questions. Several students in each group did so.

After completing the survey, students were given the opportunity to ask questions about the project and the M.Sc. program. The first cohort served as an informal discussion group regarding general conditions at UR and provided useful feedback about their experiences.

In total, 38% of the data in the student survey are missing due to refusal or non-response. Generally, students were more apt to respond to the questions using the frequency scale. For this question format, the percent missing per question ranged from 0% to 20%. The students skipped questions using the (+) should do more and (-) should do less response scale 56% to 96% of the time. As a result, responses to questions in this format are used cautiously in this report.

2.3 Data Collection Challenges

The data collection for this report went fairly smoothly given that the timing of the survey was during the summer months when students and faculty are typically otherwise engaged in holidays, internships, or consultancies. Faculty members were asked to respond to the survey within 24 hours, but it took 11 days to receive all input. One faculty member required that the graduate student intern travel to her office, where she provided a hard copy of the survey. The students from four of the five lecturers were eager to assist with the survey. However, students from one of the faculty members were reluctant to participate without monetary compensation. They voiced concerns regarding the cost of transportation and their time to travel to the meeting point and fill out the survey. As a result, the Assistant Project Coordinator and graduate student intern met with three of these students individually at a more convenient location. Compensation was considered during the survey planning stages, however, budgeting and other constraints made this impractical. Instead, the Assistant Project Coordinator and the project intern decided that a soft drink was sufficient incentive. Given that only one cohort of students voiced concerns, compensation does not appear to be a severely limiting factor for participation in the surveys.

2.3 Coding Procedures

Responses to both the faculty and student surveys were hand-coded by the graduate student intern using Microsoft Excel. Complex coding software was not utilized do to the low volume and short-length of the two surveys. Responses were double-coded and then cross-checked for accuracy. All of the questions on the *Faculty Good Practices Self-Reporting Inventory* are worded in positive terms, meaning that higher numbers on the five-point scale suggest higher frequency of behaviors that have been determined as good practices for undergraduate instruction. This made coding and analysis of these data straightforward. In contrast, 11 of the 60 questions on the *Teacher Behaviors Inventory* are worded in negative

terms, meaning that higher numbers on the five-point scale suggest higher frequency of behaviors that are *not* good practices for undergraduate instruction. To ease interpretation of the results, the responses to these questions were coded with an inverted-scale, so that higher numbers indicate less frequent *negative* classroom behaviors.

2.4 Data Analysis Techniques

This report relies on two different types of opinion survey. Responses to the two surveys are analyzed separately. The results of this analysis along with recommendations for improvement are provided for each individual lecturer in the form of a "Faculty Baseline Scorecard".

2.4.1 Faculty Population Data

The faculty survey is considered a self-assessment from a baseline population. All five of the target faculty were surveyed based on their own opinions of their teaching behavior. As a result, population based data analysis techniques – i.e. nonparametric analysis – are most appropriate for analyzing the faculty self-assessment survey. Because of the nonnormality and small sample size, median responses are utilized as the measure of central tendency.

2.4.2 Student Small Convenience Sample

The student survey is based on a non-random, convenience small-sampling technique. Only 5 students from each faculty member were surveyed. Analysis of these data using classic statistical inference techniques poses serious problems of internal validity, including violations of key sampling method and size assumptions. As a result, findings from the student evaluations should be taken as a small slice of student viewpoints, and perhaps not necessarily representative of the views of all the students of these faculty members. Due to these constraints, simple descriptive statistics are utilized. Again, to account for nonnormality, the median response is used as the measure of central tendency.

2.4.3 Statistical Analysis Software and Replication

All data analysis for this report was conducted using Microsoft Excel and the statistical software *Stata12* developed by StataCorp LP (College Station, TX). Due to ease of use and the small sample size descriptive statistics and summary tables were developed using Excel. All graphics in this report were developed using *Stata12*.

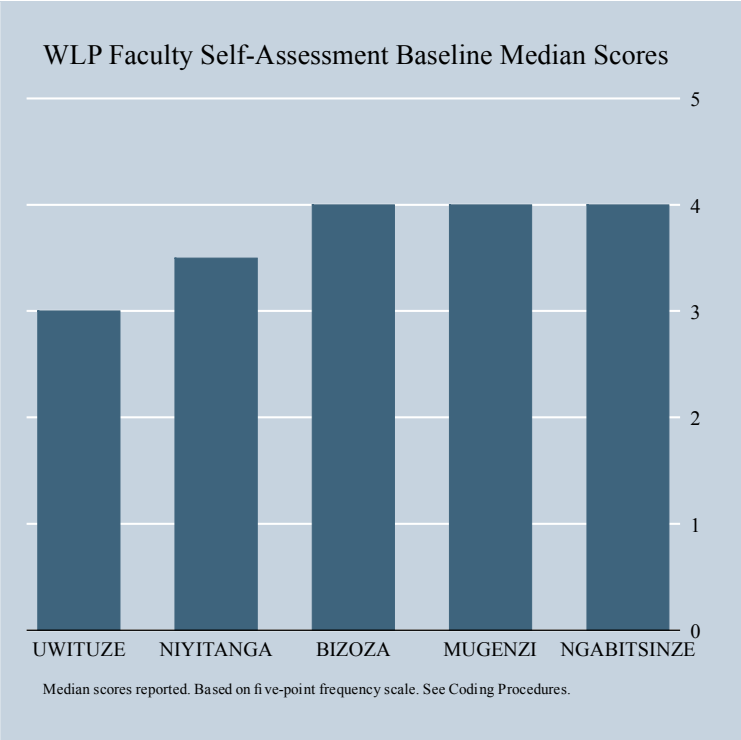
Replication files for the graphics, as well as, raw data files may be available upon request. If you would like access to these files, contact the Project Principle Investigator,

Gretchen Neisler: gneisler@anr.msu.edu. Due to the confidential nature of the data, in particular because faculty members' survey responses are attributed to them rather than anonymous, data and replication file requests require confidentiality agreement and will be reviewed for merit.

3. Results & Findings

3.1 Faculty Self-Assessment Survey

The self-assessment survey suggests that, in general, the five faculty members rank themselves high on the *Faculty Good Practices Self-Reporting Inventory*. The median response category overall is 4 out of 5, meaning that the faculty members assess themselves as *often* engaging in the Seven Principles for Good Practice in Undergraduate Education. Three of the five lecturers indicate often (4) as their overall median response on the survey. Meanwhile, UWITUZE has the lowest median self-assessment, scoring (3) overall and also ranks lowest for all seven principle categories. Across the seven principle categories, there is some variation in median response. See the Appendix for a detailed table summarizing the responses for each principle by question.



3.1a High Expectations

The lecturers rank themselves highest on High Expectations, with an overall median score of 5, meaning that they see themselves as engaging in these behaviors "very often". Within the High Expectations category, the median scores rang from 2.5 for UWITUZE to 5 for BIZOZA and NGABITSINZE. The faculty members overall report giving students opportunities

for extra credit least often (median score = 2). On all other High Expectations behaviors, the faculty members have a median rating of 4 or 5.

3.1b Prompt Feedback and Student-Faculty Contact

The lecturers rank themselves lowest on Prompt Feedback and Student-Faculty Contact, indicating that these are two areas that need some improvement.

Prompt Feedback receives an overall median score of 3, meaning that the lecturers see themselves only engaging in this behavior occasionally. While BIZOZA and MUGENZI consider themselves providing prompt feedback often (4), NGABITSINZE and UWITUZE respond that they engage in these behaviors rarely (2). The faculty members indicat that the behavior they engage in least often is meeting with each student at least once during the semester (median = 1). Faculty members also appear to rarely provide students with a pre-test at the beginning of the term (median = 1.5), rarely follow up with a student if he/she misses class (median = 2), and rarely return assignments within one week (median = 2). Meanwhile, the faculty often or very often assign quizzes, provide problem solving exercises and case studies, and give students detailed comments.

The median score for Student-Faculty Contact is also 3. However, the range of responses for this question is much narrower. While BIZOZA and NGABITSINZE both see themselves as engaging in these behaviors often (4), the remaining three lecturers have a median response of occasionally (3). The faculty members report that they rarely know all their students' names within the first week of class (median = 2). On all other Student-Faculty Contact behaviors, the faculty report occasional or often engagement.

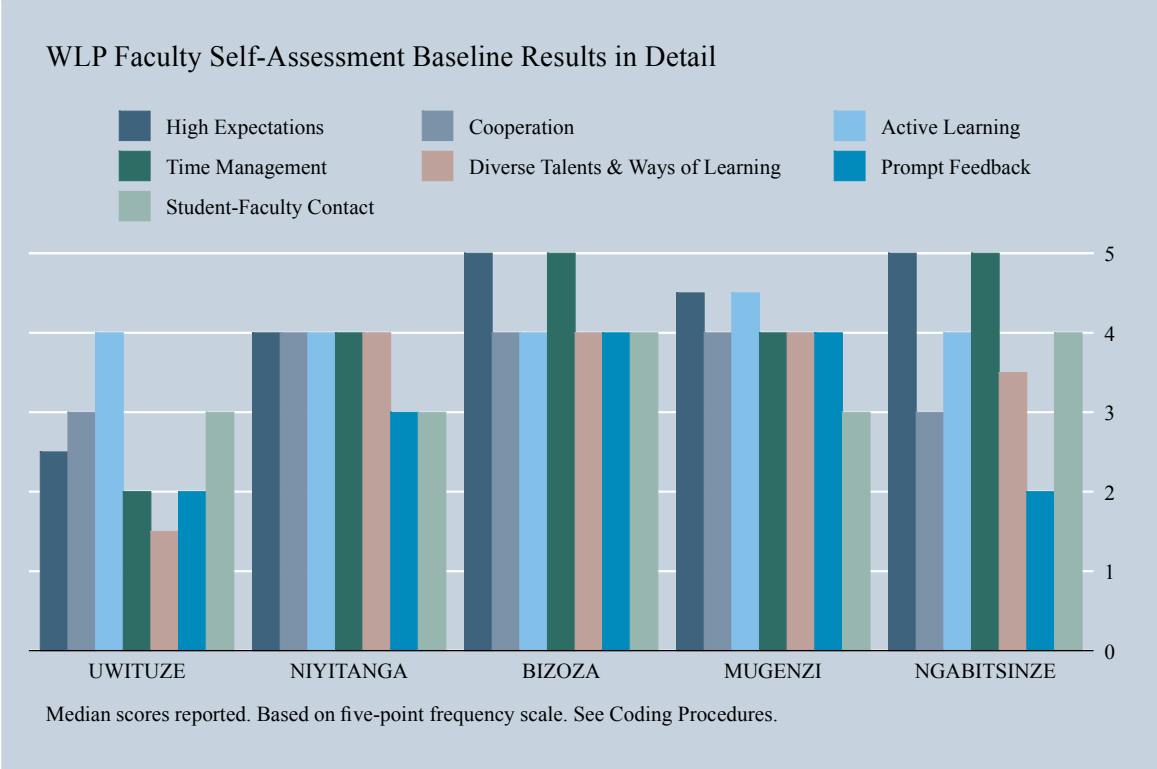
3.1c Cooperation, Active Learning, Time Management, and Diverse Talents and Ways of Learning

Cooperation, Active Learning, Time Management, and Diverse Talents and Ways of Learning all tie with a median response of often (4).

For Cooperation and Active Learning, the range of responses is quite narrow. NGABITSINZE and UWITUZE both have a median response of occasionally (3), while all of the others have a median response of often (4). The faculty members report rarely giving praise to students in class (median = 2), but occasionally or often engaging in all other Cooperation behaviors. Faculty median responses for Active Learning range from 4.5 for MUGENZI to 4 for all others. For Active Learning behaviors, the median response from faculty members was often or very often for all questions.

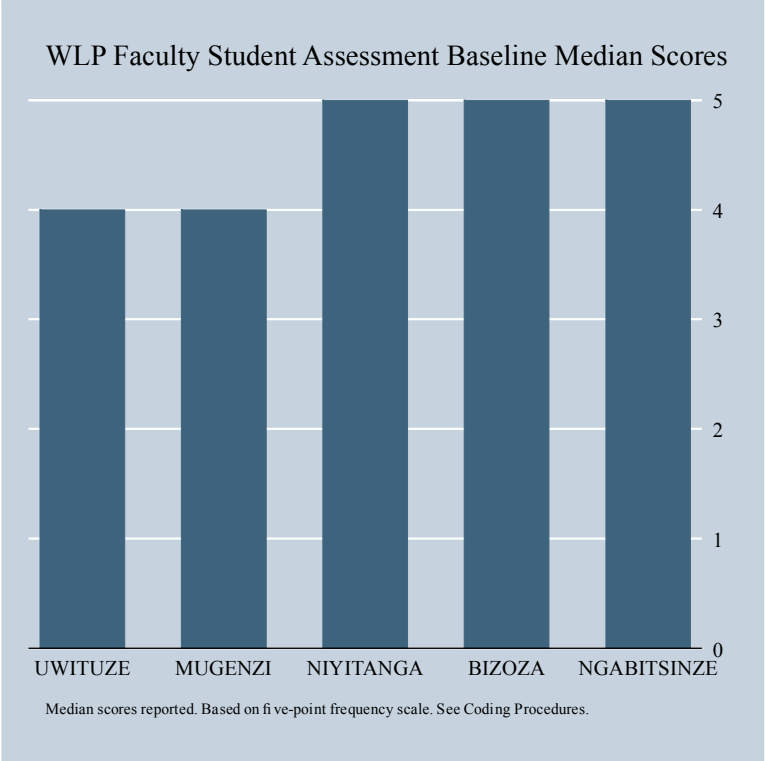
Meanwhile Time Management and Diverse Talents both have larger ranges of median responses. UWITUZE provides the lowest median response for both of these categories (2 and

1.5, respectively). The median responses for the other faculty members on Time Management fall between 4 and 5 and on Diverse Talents fall between 3.5 and 4. For Time Management, faculty members report occasionally structuring their courses to ensure equal time requirements throughout the term (median = 3). For all other Time Management behaviors, the median responses are either often or very often. For Diverse Talents, the faculty members report never or rarely allowing students to propose independent study projects within their courses (median = 2.5) and rarely asking students about their learning styles (median = 2). For all other Diverse Talents behaviors, the median response is at least occasionally.



3.2 Student Evaluation Survey

Overall, the students rate their professors high on the *Teacher Behaviors Inventory.* The median response for students of the five professors is 4 out of 5.0. This suggests that the students see their lecturers as engaging in positive behaviors *often* or *almost always* and negative behaviors *rarely* or *almost never*. Three of the five lecturers have a median score of 5, while UWITUZE and MUGENZI both have median scores of 4. The lowest and highest score earners across the different behavior categories vary. In terms of specific behaviors, across all the different categories, students tend to provide a median response of 3 or higher. The only behavior to receive below a 3 is avoiding eye contact with students, which the respondents indicated the lecturers almost always do.



3.2a Clarity, Organization, Pacing, and Speech

In four of the eight categories on the *Teacher Behaviors Inventory*, the overall median student response is 5. This suggests that the lecturers perform well when it comes to clarity, organization, pacing, and speech. In all four of these categories, MUGENZI and UWITUZE receive the lowest median response scores.

In terms of Clarity, MUGENZI has the lowest median score (3), followed by UWITUZE (4). The remaining lecturers receive a median score of 5 in the Clarity category. Student responses indicate that lecturers are least likely to suggest ways of memorizing complex ideas (median=3). All other Clarity behaviors receive a median score of 4 or higher.

For Organization, Pacing, and Speech, both MUGENZI and UWITUZE have median scores of 4, while the remaining lecturers all receive a 5. The median response across all behaviors for organization and speech is a 5. In terms of pacing, the students responded that sometimes the lecturers tend to dwell excessively on obvious points (median = 3). The remaining pacing behaviors were rated at either a 4 or 5.

3.2b Enthusiasm, Interaction, Disclosure, Rapport

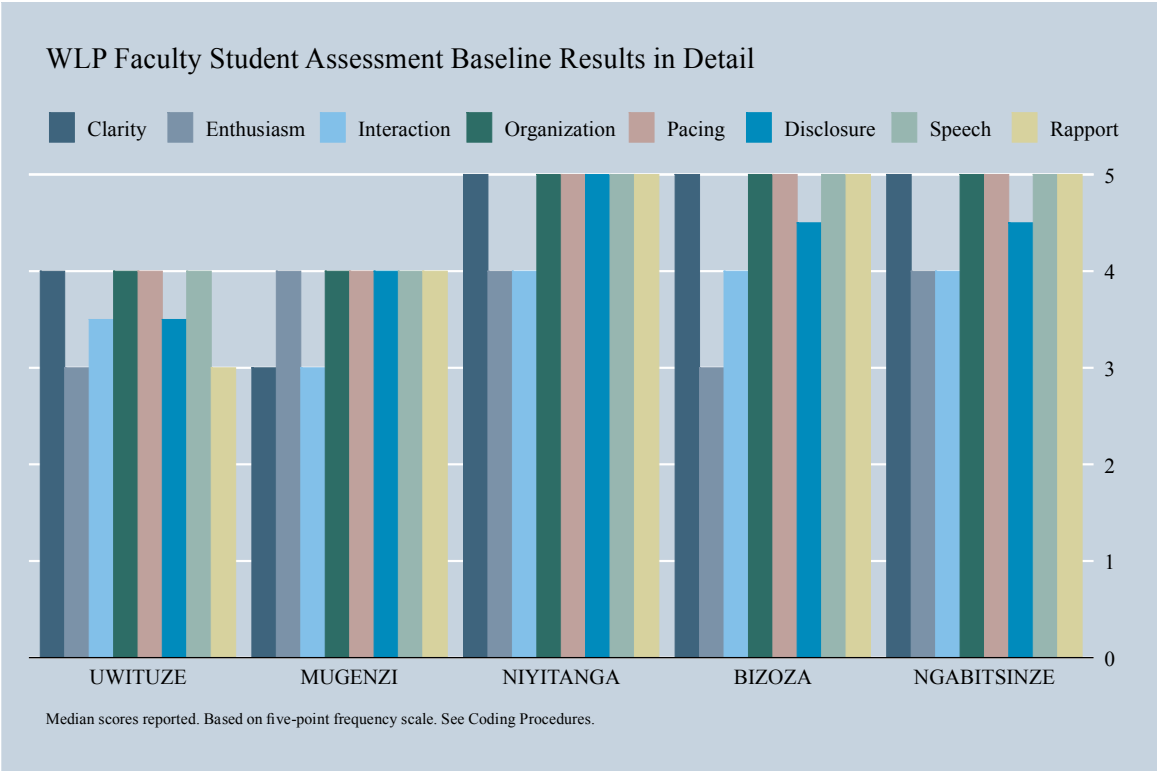
The remaining four categories on the survey all have a median response of 4, indicating that students thought their lecturers also did fairly well in regard to enthusiasm, interaction, disclosure, and rapport.

For the Enthusiasm category, BIZOZA and UWITUZE score lowest (median = 3). All other lecturers receive a median response of 4 for their enthusiasm. The respondents indicate that the lecturers almost always avoid eye contact with students (median = 1 on the inverted scale). Students also indicate that the lecturers sometimes (median = 3) walk up the aisles, tell jokes or humorous anecdotes, read lecture verbatim from notes, and smile while teaching. The remaining behaviors for this category receive a median score of 4 or 5.

In terms of Interaction, MUGENZI receives the lowest median student response (median = 3) followed by UWITUZE (median = 3.5). The other three lecturers all receive a median response of 4 for this category. Regarding specific behaviors related to interaction, students indicate that lecturers sometimes present challenging ideas, sometimes use a variety of media, and sometimes ask rhetorical questions (median = 3). The remainder of the questions for this category receive a median response of 4 or higher.

For Disclosure, UWITUZE receives the lowest median student response (median = 3.5), followed by MUGENZI (median = 4). The remaining four lecturers receive a median response of 4.5 or 5. Students indicate that the lecturers sometimes provide sample exam questions and sometimes tell students exactly what is expected of them (median = 3). Other behaviors related to disclosure all receive a median score of 5.

Finally, regarding Rapport, UWITUZE receives the lowest median score (3), followed by MUGENZI (4). Students indicate that the lecturers sometimes address individual students by name and sometimes show tolerance of other points of view (median = 3). All other behaviors related to rapport receive a median response of 4.



3.3 Informal Focus Group Feedback

The first cohort of students, all August 2014 graduates from UR who had taken courses from at least three of the five faculty members, served as an informal focus group. They group was asked questions regarding their experience as UR students in general and to comment on areas for improvement overall. Some of the key points are summarized here:

Practical knowledge application. The students stressed the need for more practical application of knowledge learned in the classroom. In particular they suggested that practitioners visit the classroom to provide practical and technical information from the field. They also argued for more time to apply their skills practically through fieldwork experiences.

Classroom environment. The students emphasized that class sizes at UR are presently too large to adequately accommodate learning. In particular, they mentioned difficulty in hearing and understanding the lecturer in large classes. The students considered courses with 40 to 60 students maximum as a more appropriate size than the present arrangement.

Access to information sources. The students cited concerns regarding access to alternative sources of information outside of the classroom. While they noted that the university offers them internet access, the students do not have access to many online academic publications and other paid services. They also mentioned limited access to academic texts not presently available and the possibility of academic exchanges for knowledge sharing.

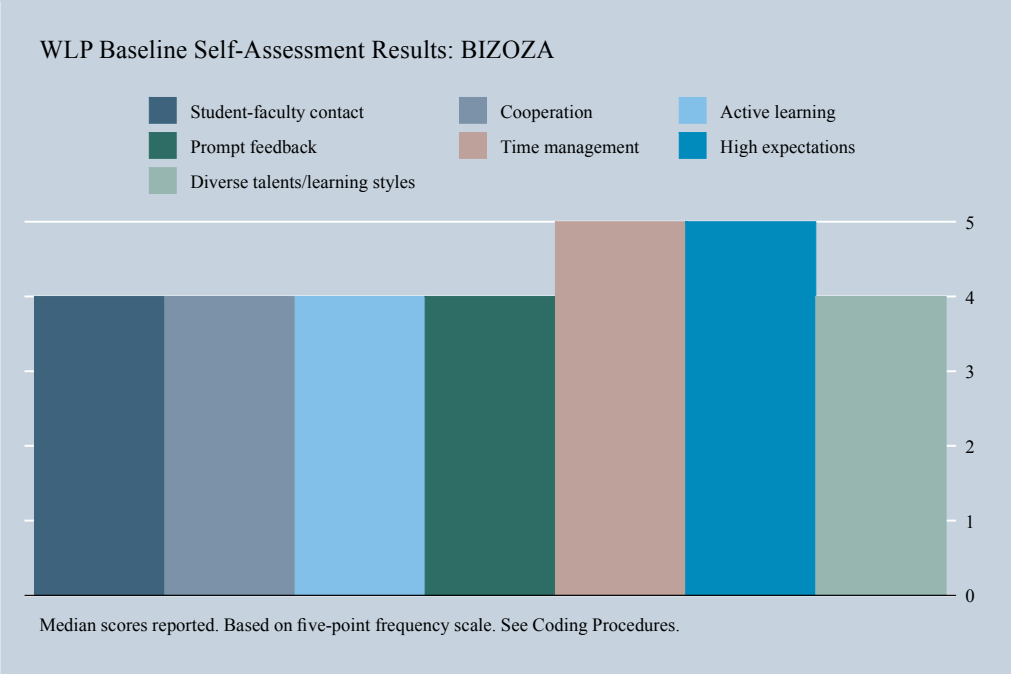
Gender on campus. The students argued strongly that UR is a gender-sensitive campus and that female students receive the same treatment and respect as their male colleagues. Career services. The students were not happy, overall, with their internship and career support experiences at UR. They argued that there needed to be more guidance for students regarding how their internship and/or thesis fits with their career options. They also cited concerns about internship placements which do not fit at all with students' academic programs. Finally, the students noted that presently UR does not have adequate career services support infrastructure and staff to assist students with job placement.

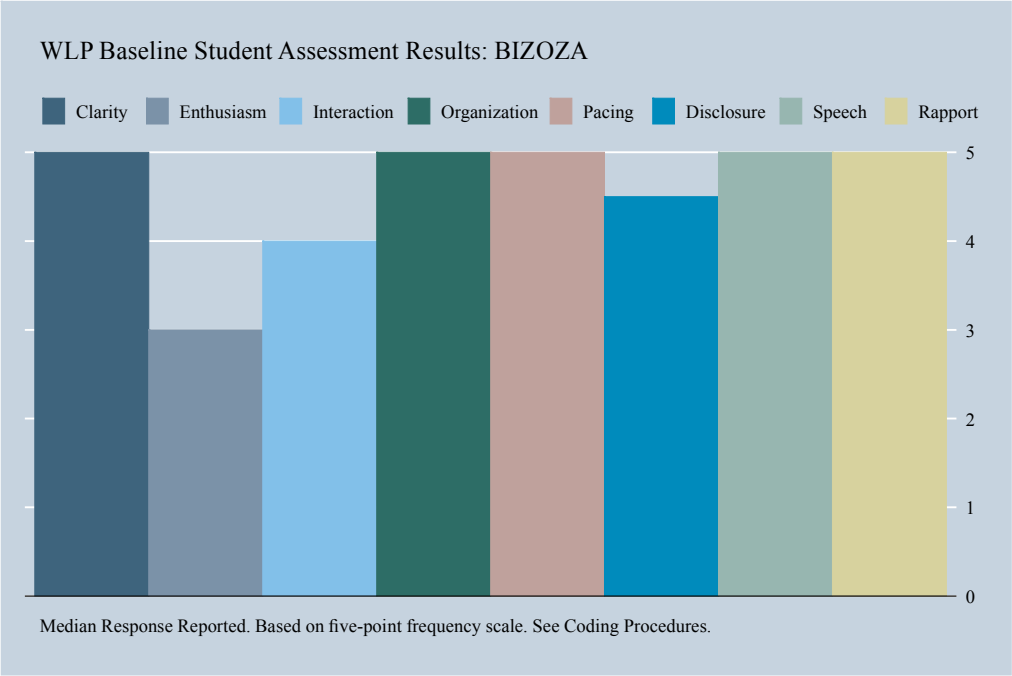
3.4 Faculty Baseline Scorecards

The final section of the findings for this report includes individual analysis of responses for each faculty member. These scorecards are intended to assist in providing targeted pedagogical skills development and for faculty members to see specifically which areas they and their students have pointed out as needing improvement. These scorecards are not intended to be used as an overall performance measure of the faculty members' abilities as teachers, researchers, and mentors. Instead, they are meant for short-term targeted efforts at personal improvement. As such, they should be approached as an attempt at constructive self- and student criticism.

WLP Faculty Baseline Scorecard
BIZOZA, Alfred

Biographical Information	
Title:	Senior Lecturer, Agricultural Economics (AGEC), Faculty of Agriculture, University of Rwanda (part-time)
Education:	PhD Agricultural Economics, Wageningen University and Research Centre, the Netherlands (2011) Master's in Agricultural Economics, University of KwaZulu-Natal, South Africa (2005) BSc Economics, National University of Rwanda, Rwanda (2000)
Other Appointments:	Board Director of the Central Bank of Rwanda (BNR), Cabinet of Government of Rwanda (2013-) Senior Research advisor for Chemonics Land Project, Kigali, Rwanda (2012-2014) Managing Director of the National University of Rwanda Consultancy Bureau (2011-2012) Head of Agricultural Economics Department, National University of Rwanda (2006-2007) Director of a Research Centre in Rural Socio-Economy (CRISER), National University of Rwanda (2006-2007)




WLP Baseline Student Assessment Results: BIZOZA
Clarity
Enthusiasm
Interaction
Organization
Pacing
Disclosure
Speech
Rapport
5
4
3
2
1
0
Median Response Reported. Based on five-point frequency scale. See Coding Procedures.

WLP Faculty Baseline Scorecard
BIZOZA, Alfred
(continued)

Areas for Improvement

According to Self-Assessment	According to Student Assessment
Faculty Student-Contact	Enthusiasm
Attends student-sponsored events	Avoids eye contact with students
Takes an interest in student life outside classroom	Walks up aisles beside students
Knows students by name within first week	Gestures with head or body
Cooperation	Tells jokes or humorous anecdotes
Asks students to evaluate each other's work	Reads lecture verbatim from prepared notes
Asks students to discuss concepts with others	Smiles and laughs while teaching
Creates learning communities or study groups	Interaction
Active Learning	Praises students for good ideas
Asks students to present work in class	Incorporates students' ideas into lecture
Asks students to summarize readings	Pacing
Prompt Feedback	Dwells excessively on obvious points
Meets with each student at least once during term	Disclosure
Discusses final exam with students after term	Provides sample exam questions
Follows up with students who miss class	Tells students exactly what is expected of them
Time Management	Rapport
Tells students to set time management goals	Addresses individual students by name
Requires students to make up for missing class	Offers to help students with problems
High Expectations	Shows tolerance of other points of view
Gives students extra credit opportunities	
Diverse Talents and Ways of Learning	
Knows learning style of students	
Asks students about their learning style	

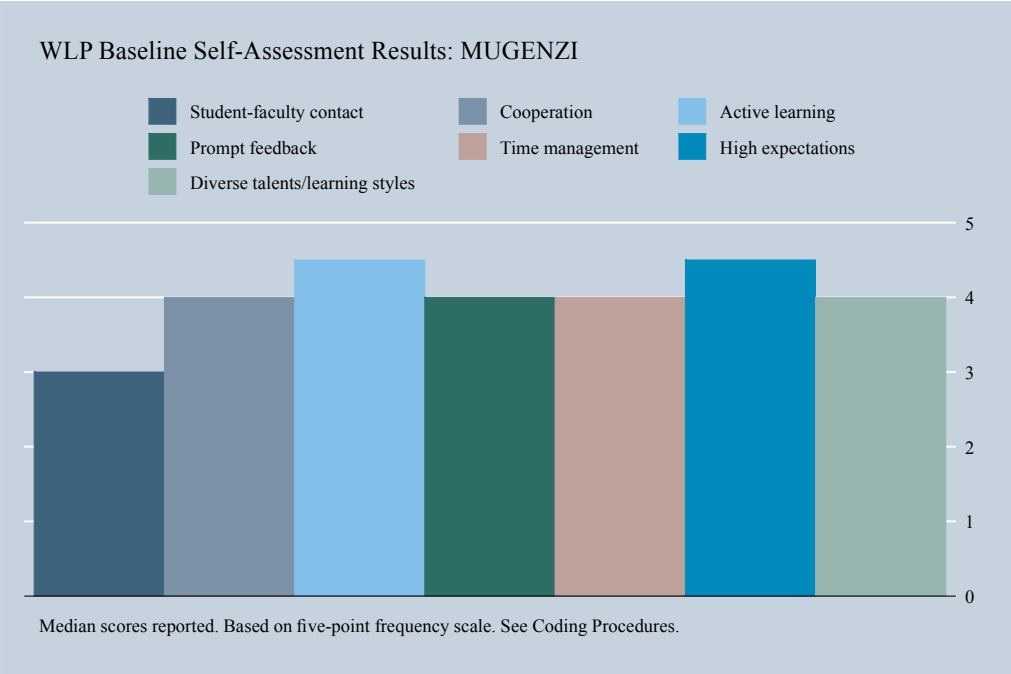
Area for improvement defined as a raw score for self-assessment or a median score for student assessment that is at or below 3. For positive behaviors, this means the lecturer engages in the activity occasionally, rarely, or never/almost never. For negative behaviors, this means the lecturer engages in the activity occasionally, often, or almost always/very often.

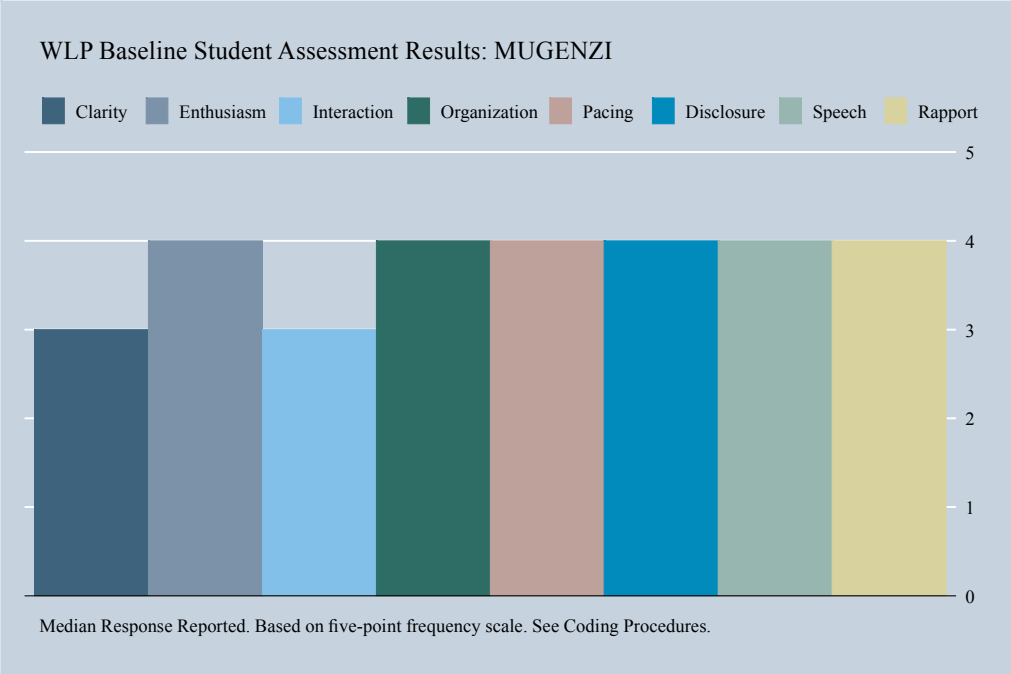
Behaviors the students indicated the lecturer should do *more* of:
Suggests ways of memorizing complicated ideas
Praises students for good ideas
Uses a variety of media and activities in class
Provides sample exam questions
States objectives of the course as a whole

Based on at least 2 responses on the student survey.

WLP Faculty Baseline Scorecard
MUGENZI, Martin

Biographical Information	
Title:	Lecturer, Economics, University of Rwanda
Education:	PhD Economics, U.R.A.P, Russia (1999) M.Sc. National Economy Management, U.R.A.P., Russia (1995) B.Sc. National Economy Management, U.R.A.P., Russia (1993)
Other Appointments:	Department Head, Economics, University of Rwanda (2001-2004; 2006-2010) Member, Scientific Committee, Center for Research and Information in Rural Socio-Economy (CRISER) (2004-) Member, Market Procurement Committee, University of Rwanda (2004) Member, Board of Directors, RWANDATEL S.A. (2001-2005) Member, Board of Directors, Agricultural Economics Education Board (AEEB) (2002-)




WLP Baseline Student Assessment Results: MUGENZI
Clarity
Enthusiasm
Interaction
Organization
Pacing
Disclosure
Speech
Rapport
5
4
3
2
1
0
Median Response Reported. Based on five-point frequency scale. See Coding Procedures.

WLP Faculty Baseline Scorecard
MUGENZI, Martin
(continued)

Areas for Improvement

According to Self-Assessment	According to Student Assessment
Student-Faculty Contact	Clarity
Provides career advice	Gives several examples of each concept
Students visit office	Uses concrete everyday examples
Attends student-sponsored events	Repeats difficult ideas several times
Takes an interest in student life outside classroom	Stresses most important points
Knows students by name within first week	Suggests ways of memorizing complex ideas
Cooperation	Enthusiasm
Asks students to evaluate each other's work	Moves about while lecturing
Creates learning communities or study groups	Exhibits facial gestures or expressions
Encourages students to join campus organizations	Avoids eye contact with students
Prompt Feedback	Reads lecture verbatim from prepared notes
Follows up with students who miss class	Smiles and laughs while teaching
Diverse Talents & Ways of Learning	Interaction
Includes work in all the senses	Criticizes students when they make errors
Knows learning style of students	Presents challenging, though-provoking ideas
Allows students to propose independent study	Uses a variety of media and activities in class
Asks students about their learning style	Asks rhetorical questions
	Pacing
	Dwells excessively on obvious points
	Digresses from major theme of lecture
	Rapport
	Shows tolerance of other points of view

Area for improvement defined as a raw score for self-assessment or a median score for student assessment that is at or below 3. For positive behaviors, this means the lecturer engages in the activity occasionally, rarely, or never/almost never. For negative behaviors, this means the lecturer engages in the activity occasionally, often, or almost always/very often.

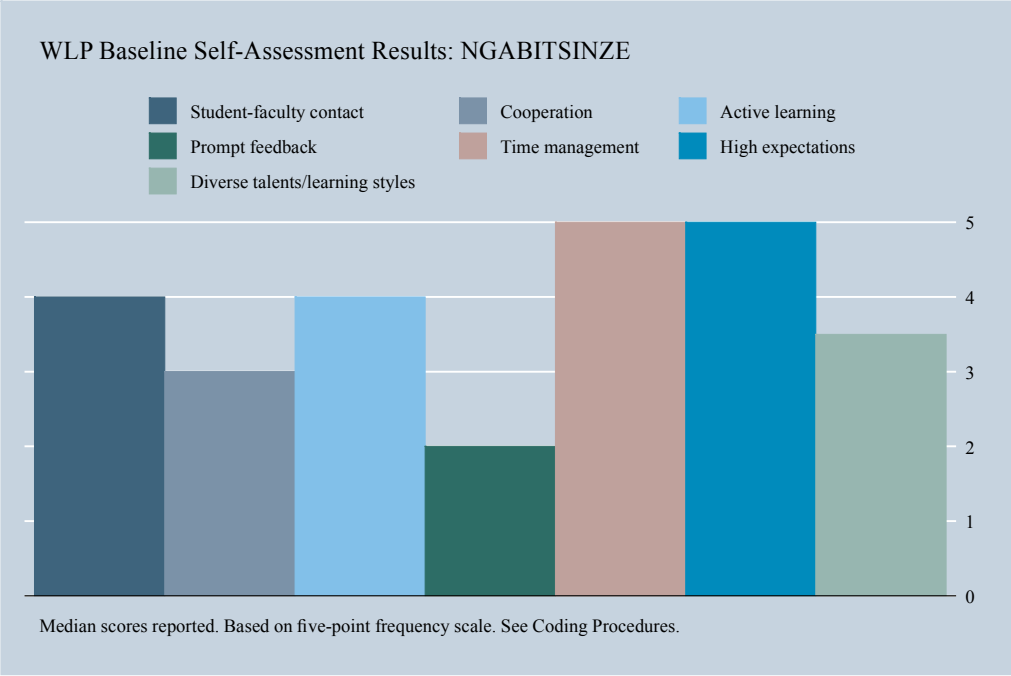
Behaviors the students indicated the lecturer should do *more* of:
Uses graphs or diagrams to facilitate explanation
Points out practical applications of concepts
Answers students' questions thoroughly
Incorporates students' ideas into lecture
Presents challenging, thought-provoking ideas
Uses headings and subheadings to organize lectures
Puts outline of lecture on blackboard or overhead screen
Clearly indicates transition from one topic to the next
Reviews topics covered in previous lectures at beginning of each class
Periodically summarizes points previously made
States objectives of each lecture

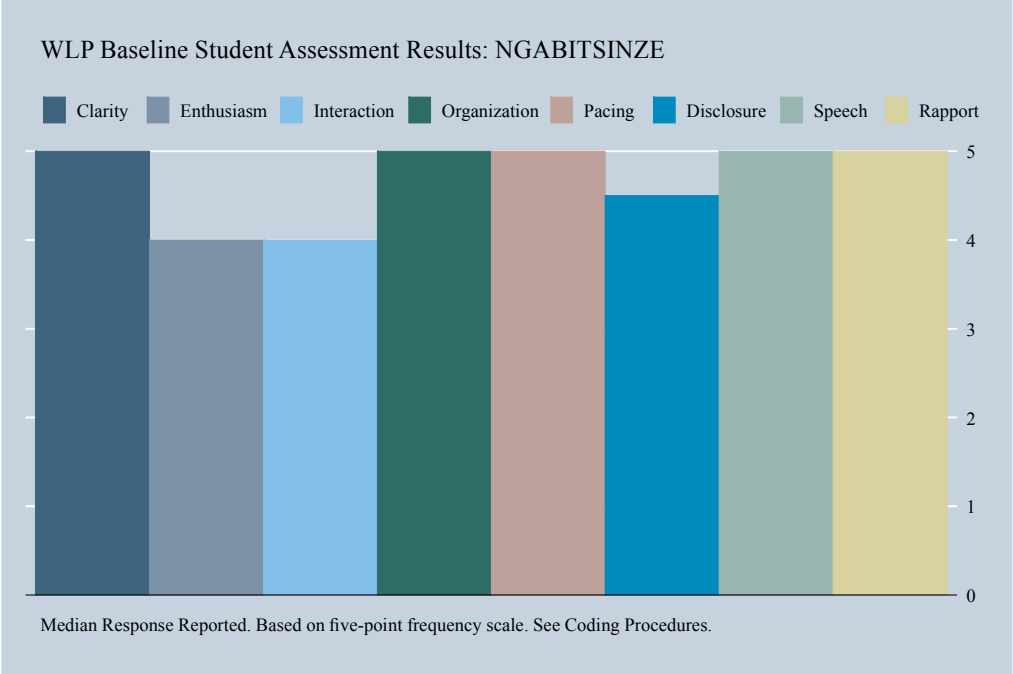
Speaks at appropriate volume
Speaks clearly
Offers to help students with problems

Based on at least 2 responses on the student survey.

WLP Faculty Baseline Scorecard
NGABITSINZE, Jean Chrysostome

Biographical Information	
Title:	Head of Department, Agricultural Economics (AGEC), Faculty of Agriculture, University of Rwanda
Education:	PhD Agriculture Economics, Milano University, Italy (2009) MSc Applied Economics, Catholic University of Milan, Italy (2006) BSc Business Economics, University of Venice, Italy (2004)
Other Appointments:	Project Coordinator, Women's Leadership Project, University of Rwanda (2013-) Assistant Lecturer, Faculty of Agriculture, Milan State University (2006-2009) Lecturer, Economics, Independent University of Kigali (2013) Lecturer, Economics, ISAE-Busogo (2014) Visiting Doctoral Student, Leuven University (Belgium) (2007-2009)




WLP Baseline Student Assessment Results: NGABITSINZE
Clarity
Enthusiasm
Interaction
Organization
Pacing
Disclosure
Speech
Rapport
5
4
3
2
1
0
Median Response Reported. Based on five-point frequency scale. See Coding Procedures.

WLP Faculty Baseline Scorecard
NGABITSINZE, Jean Chrysostome
(continued)

Areas for Improvement

According to Self-Assessment	According to Student Assessment
Student-Faculty Contact	Clarity
Takes an interest in student life outside classroom	Suggests ways of memorizing complex ideas
Knows students by name within first week	Enthusiasm
Cooperation	Avoids eye contact with students
Advises students to tell each other about interests	Walks up aisles beside students
Encourages students to prepare together	Tells jokes or humorous anecdotes
Asks students to evaluate each other's work	Reads lecture verbatim from prepared notes
Asks students to explain difficult ideas to each other	Smiles and laughs while teaching
Encourages students to praise each other	Interaction
Prompt Feedback	Asks questions of individual students
Returns assignments within one week	Incorporates students' ideas into lecture
Meets with each student at least once during term	Presents challenging, though-provoking ideas
Gives pre-test to students at start of term	Uses a variety of media and activities in class
Discusses final exam with students after term	Asks rhetorical questions
Follows up with students who miss class	Pacing
Time Management	Dwells excessively on obvious points
Tells students to rehearse presentations	Covers very little material in class session
Structures class to ensure equal time expectations throughout	Disclosure
Diverse Talents & Ways of Learning	Provides sample exam questions
Rebukes students when they disrespect each other	Tells students exactly what is expected of them
Allows students to propose independent study	Rapport
	Shows tolerance of other points of view

Area for improvement defined as a raw score for self-assessment or a median score for student assessment that is at or below 3. For positive behaviors, this means the lecturer engages in the activity occasionally, rarely, or never/almost never. For negative behaviors, this means the lecturer engages in the activity occasionally, often, or almost always/very often.

Behaviors the students indicated the lecturer should do *more* of:
Gives several examples of each concept
Uses concrete everyday examples
Repeats difficult ideas several times
Stresses important points by pausing, speaking slowly, etc
Answers student questions thoroughly
Suggests ways of memorizing complicated ideas
Smiles or laugh while teaching
Encourages students to ask questions or make comments
Incorporates student ideas into lecture
Uses a variety of media and activities in class
Advises students as to how to prepare for tests or exams
Provides sample exam questions
Shows tolerance for other points of view

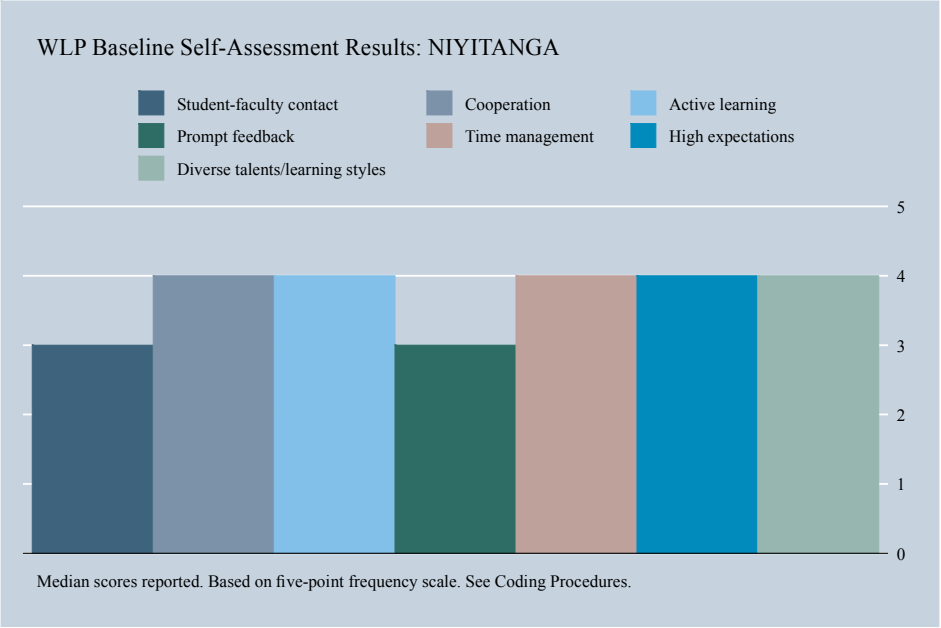
Based on at least 2 responses on the student survey.

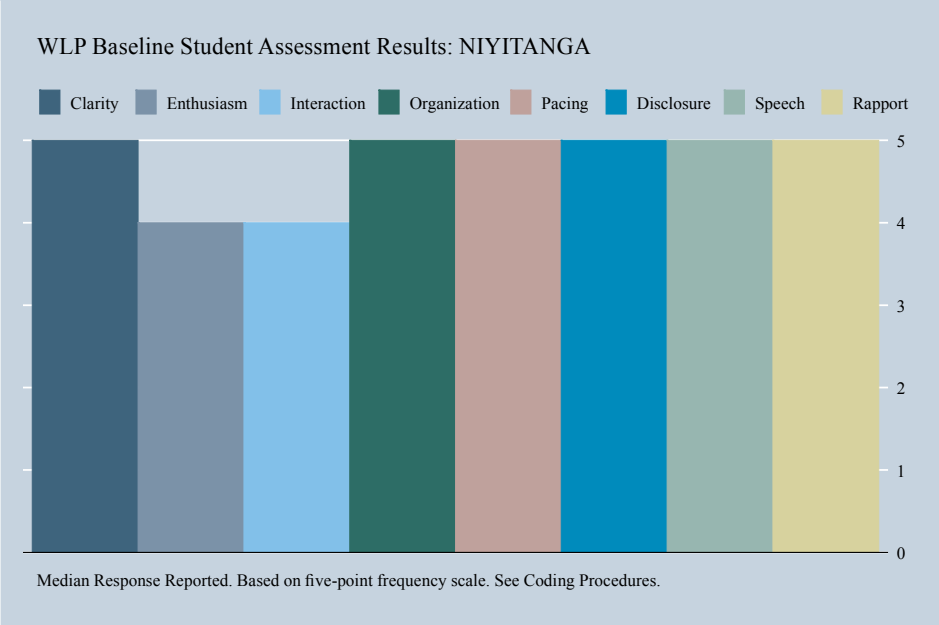
Behaviors students indicated the lecturer should do *less* of:
Tells jokes or humorous anecdotes
Dwells excessively on obvious points

Based on at least 2 responses on the student survey.

WLP Faculty Baseline Scorecard
NIYITANGA, Fidele

Biographical Information	
Title:	Lecturer, Agricultural Economics (AGEC), Faculty of Agriculture, University of Rwanda
Education:	PhD Political and Social Sciences (Development), Université catholique de Louvain (UCL), Belgium (2013) DES Rural Economics, Université catholique de Louvain (UCL), Belgium (2006) B.Sc. Economics, National University of Rwanda, Rwanda (2002)
Other Appointments:	Lecturer of Rural economics, Department of Rural development, ISAE (2007) Research-Assistant, CRISER6, Faculty of Agriculture, NUR (2003-2006) Project officer, Presbyterian Church in Rwanda (EPR) (2002-2003)




WLP Baseline Student Assessment Results: NIYITANGA
Clarity
Enthusiasm
Interaction
Organization
Pacing
Disclosure
Speech
Rapport
5
4
3
2
1
0
Median Response Reported. Based on five-point frequency scale. See Coding Procedures.

WLP Faculty Baseline Scorecard
NIYITANGA, Fidele
(continued)

Areas for Improvement

According to Self-Assessment	According to Student Assessment
Faculty Student-Contact	Enthusiasm
Students visit office	Avoids eye contact with students
Shares experiences with students	Walks up aisles beside students
Attends student-sponsored events	Tells jokes or humorous anecdotes
Takes an interest in student life outside classroom	Reads lecture verbatim from prepared notes
Knows students by name within first week	Smiles and laughs while teaching
Invites students to professional meetings or events	Interaction
Cooperation	Presents challenging, though-provoking ideas
Advises students to tell each other about interests	Uses a variety of media and activities in class
Asks students to evaluate each other's work	Asks rhetorical questions
Encourages students to praise each other	Pacing
Encourages students to join campus organizations	Covers very little material in class session
Active Learning	Disclosure
Encourages students to suggest readings and projects	Provides sample exam questions
Prompt Feedback	Rapport
Asks students to summarize readings in class	Addresses individual students by name
Includes problem solving and case studies in class	
Returns assignments within one week	
Gives students detailed comments	
Meets with each student at least once during term	
Gives pre-test to students at start of term	
Discusses final exam with students after term	
Follows up with students who miss class	
Time Management	
Tells students how much class preparation time is expected	
Tells students how much assignment preparation time is expected	
Tells students to set time management goals	
High Expectations	
Asks students to set challenging learning goals	
Praises high achieving students in class	
Asks students for feedback on expectations	

Area for improvement defined as a raw score for self-assessment or a median score for student assessment that is at or below 3. For positive behaviors, this means the lecturer engages in the activity occasionally, rarely, or never/almost never. For negative behaviors, this means the lecturer engages in the activity occasionally, often, or almost always/very often.

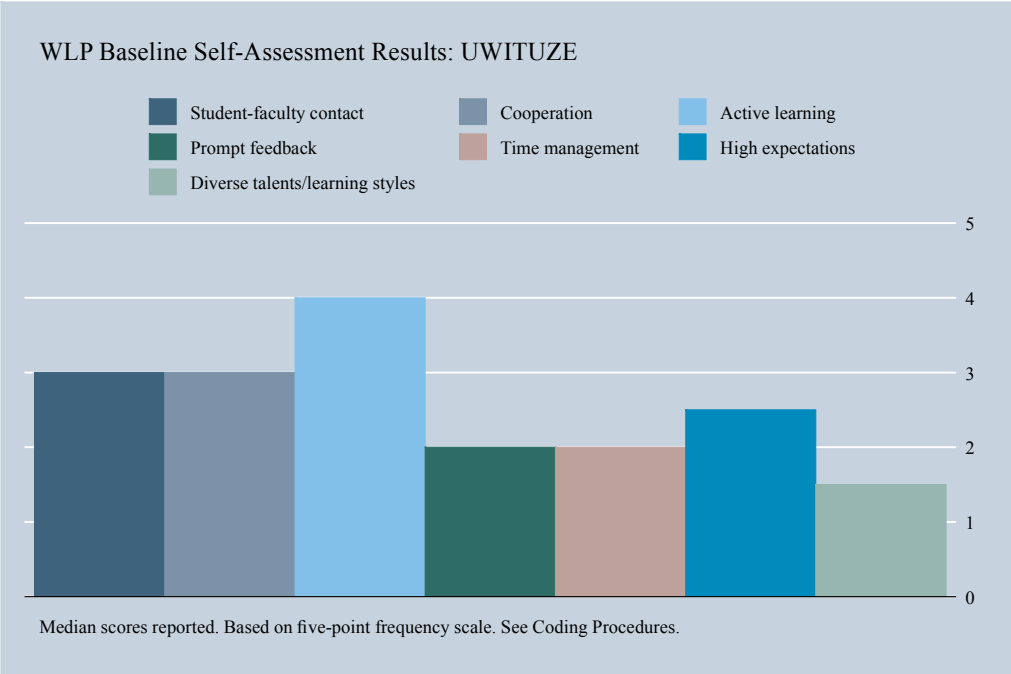
Behaviors the students indicated the lecturer should do *more* of:
Walks up aisles beside students
Provides sample exam questions

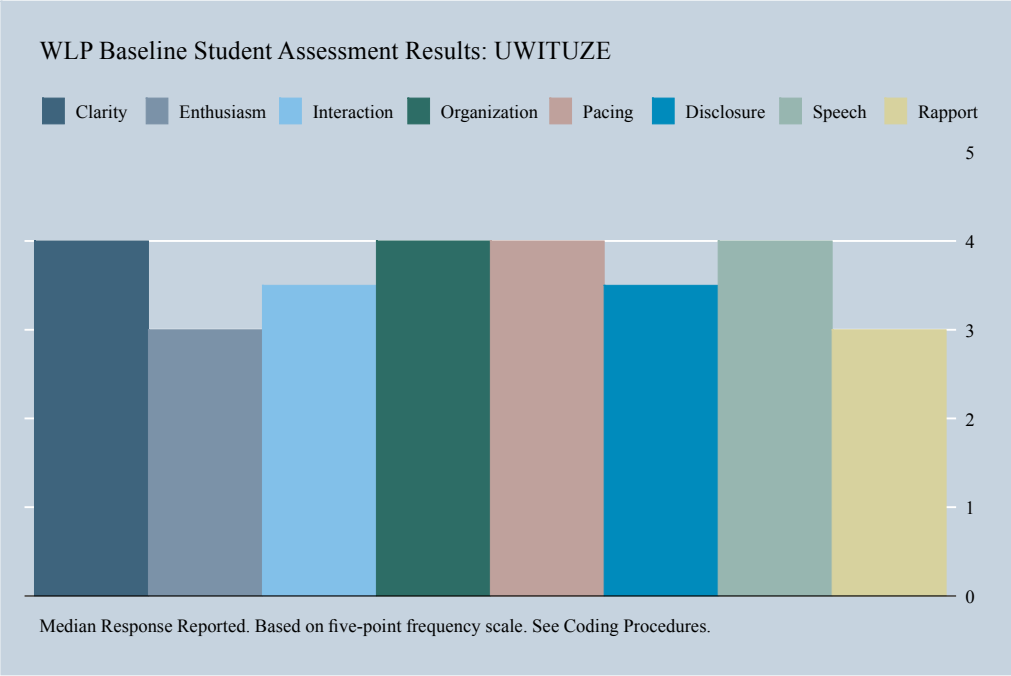
Addresses individual students by name
Based on at least 2 responses on the student survey.

Behaviors students indicated the lecturer should do *less* of:
Tells jokes or humorous anecdotes
Dwells excessively on obvious points
Based on at least 2 responses on the student survey.

WLP Faculty Baseline Scorecard
UWITUZE, Solange

Biographical Information	
Title:	Dean, Faculty of Agriculture, University of Rwanda (2012-)
Education:	PhD Animal Sciences, Kansas State University, USA (2011) MSc Animal Sciences, Kansas State University, USA (2008) BSc Agriculture, University of Rwanda, Rwanda (2002)
Other Appointments:	Lecturer, Faculty of Agriculture, University of Rwanda (2011-) Project Director, Women in Leadership Project, University of Rwanda (2012-) Project Director, NICHE/RWA100, University of Rwanda (2012-) Deputy Team Leader, Sida-NUR Cooperation, University of Rwanda (2012-) Vice Dean (Research, Consultancy, and Post-graduate Programs), Faculty of Agriculture, University of Rwanda (2012)




WLP Baseline Student Assessment Results: UWITUZE
Clarity
Enthusiasm
Interaction
Organization
Pacing
Disclosure
Speech
Rapport
5
4
3
2
1
0
Median Response Reported. Based on five-point frequency scale. See Coding Procedures.

WLP Faculty Baseline Scorecard
UWITUZE, Solange
(continued)

Areas for Improvement

According to Self-Assessment	According to Student Assessment
Student-Faculty Contact	Clarity
Provides career advice	Repeats difficult ideas several times
Attends student-sponsored events	Points out practical applications
Knows students by name within first week	Suggests ways of memorizing complex ideas
Invites students to professional meetings or events	Writes key terms on board or overhead
Helps resolve student problems when asked	Explains subject matter in familiar language
Cooperation	Enthusiasm
Advises students to tell each other about interests	Moves about while lecturing
Asks students to evaluate each other's work	Exhibits facial gestures or expressions
Asks students to explain difficult ideas to each other	Avoids eye contact with students
Encourages students to praise each other	Walks up aisles beside students
Asks students to discuss concepts with others	Gestures with head or body
Creates learning communities or study groups	Tells jokes or humorous anecdotes
Active Learning	Reads lecture verbatim from prepared notes
Gives students real-life case studies to analyze	Smiles and laughs while teaching
Conducts experiments or labs in the classroom	Interaction
Encourages students to suggest readings and projects	Encourages students to ask questions
Prompt Feedback	Asks questions of individual students
Asks students to summarize readings in class	Incorporates students' ideas into lecture
Includes problem solving and case studies in class	Presents challenging, though-provoking ideas
Returns assignments within one week	Uses a variety of media and activities in class
Gives students detailed comments	Asks rhetorical questions
Meets with each student at least once during term	Organization
Gives pre-test to students at start of term	Reviews topics covered in previous lectures
Discusses final exam with students after term	Pacing
Follows up with students who miss class	Digresses from major theme of lecture
Time Management	Disclosure
Tells students how much class preparation time is expected	Provides sample exam questions
Tells students how much assignment preparation time is expected	Tells students exactly what is expected of them
Tells students to set time management goals	States objectives of each lecture
Tells students to rehearse presentations	Speech
Structures class to ensure equal time expectations throughout	Says 'um' or 'ah'
Emphasizes regular work and pacing to students	Rapport
Requires students to make up for missing class	Addresses individual students by name
High Expectations	Announces availability for consultation
Tells students careers depend on hard work in class	Offers to help students with problems
Asks students to set challenging learning goals	Talks with students before and after class
Gives students extra credit opportunities	
Requires a lot of writing exercises	
Praises high achieving students in class	

Asks students for feedback on expectations
Diverse Talents & Ways of Learning
Includes work in all the senses
Knows learning style of students
Assigns work to give students learning style options
Provides background for students who need it
Allows students to propose independent study
Asks students about their learning style

Area for improvement defined as a raw score for self-assessment or a median score for student assessment that is at or below 3. For positive behaviors, this means the lecturer engages in the activity occasionally, rarely, or never/almost never. For negative behaviors, this means the lecturer engages in the activity occasionally, often, or almost always/very often.

WLP Faculty Baseline Scorecard
UWITUZE, Solange
(continued)

Behaviors the students indicated the lecturer should do *more* of:
Uses concrete everyday examples to explain concepts
Stresses most important points by pausing, speaking slowly, etc
Uses graphs or diagrams to facilitate explanation
Points out practical applications of concepts
Suggests ways of memorizing complicated concepts
Writes key terms on overhead or blackboard screen
Moves about while lecturing
Exhibits facial gestures or expressions
Gestures with head or body
Encourages students to ask questions or make comments
Asks questions of individual students
Presents challenging, thought-provoking ideas
Uses a variety of media and activities in class
Uses headings and subheadings to organize lectures
Puts outline of lecture on blackboard or overhead screen
Explains how each topic fits into the course as a whole
Reviews topics covered in previous lectures at beginning of each class
Periodically summarizes points previously made
Advises students as to how to prepare for tests or exams
Tells students exactly what is expected of them on tests, essays, or assignments
Reminds students of test dates or assignment deadlines
Announces availability for consultation outside of class
Offers to help students with problems
Talks with students before and after class

Based on at least 2 responses on the student survey.

Behaviors students indicated the lecturer should do *less* of:

Dwells excessively on obvious points

Based on at least 2 responses on the student survey.

4. Conclusions

The purpose of this report was to investigate the behaviors of five faculty members who will be teaching in the inaugural semester of the MSc program in Agribusiness at the University of Rwanda through the USAID/HED Women's Leadership Project (WLP).

The WLP seeks to enhance the capacity of lecturers at UR through pedagogical training and also seeks to increase the livelihoods of female Rwandans through a gender-sensitive and female-targeted MSc program in Agribusiness. The present study was meant to provide important information to stakeholders and project planners regarding the core areas for capacity building in upcoming pedagogical training workshops.

The data in this report came from two primary sources to ensure a well-rounded perception of behaviors. These included the faculty members themselves and five of their most recent students.

The findings of this report suggest that overall, the faculty and the students provide high scores in *Faculty Good Practices* and *Teacher Behaviors.* Generally speaking, these five faculty members appear to engage in common positive pedagogical behaviors quite often.

While many of the shot-falls identified in teaching behavior can be linked back to challenges endemic to UR, such as large class sizes, high course loads for professors, and limited infrastructure, training workshops could be successful in targeting some of the pedagogical behaviors that faculty and students noted as being less common.

While these behaviors vary substantially across different lecturers, generally speaking, trainings could focus on: (1) tools for providing prompt feedback to students; (2) enhancing student-faculty contact, despite large class sizes and teaching many classes at once; (3) enthusiasm in the classroom; (4) encouraging student interaction; (5) adequate disclosure of course objectives, requirements, and deadlines; and (5) overall rapport with study.

5. Appendix

Table 1. Faculty Baseline Self-Assessment Results

	Median	BIZOZA	MUGENZI	NGABITSINZE	NIYITANGA	UWITUZE
1. Student-Faculty Contact	3	4	3	4	3	3
Q1a. Provides career advice	4	5	3	5	4	3
Q1b. Students visit office	4	4	3	4	3	4
Q1c. Shares experiences with students	4	5	4	4	3	5
Q1d. Attends student-sponsored events	3	3	2	4	3	3
Q1e. Takes an interest in student life outside classroom	3	2	2	3	3	4
Q1f. Knows students by name within first week	2	2	2	2	1	3
Q1g. Invites students to professional meetings or events	4	4	4	5	3	3
Q1h. Helps resolve student problems when asked	4	5	4	4	5	3
2. Cooperation	4	4	4	3	4	3
Q2a. Advises students to tell each other about interests	3	4	4	3	1	3
Q2b. Encourages students to prepare together	4	4	5	3	4	4
Q2c. Encourages students to do projects together	4	5	5	4	4	4
Q2d. Asks students to evaluate each other's work	3	3	3	2	3	3
Q2e. Asks students to explain difficult ideas to each other	4	4	4	3	4	3
Q2f. Encourages students to praise each other	2	NR	4	3	1	1
Q2g. Asks students to discuss concepts with others	4	3	4	4	5	2
Q2h. Creates learning communities or study groups	3	3	3	4	4	1
Q2i. Encourages students to join campus organizations	4	4	3	4	3	4
3. Active Learning	4	4	4.5	4	4	4
Q3a. Asks students to present work in class	5	3	5	5	5	5
Q3b. Asks students to summarize readings	4	2	4	5	4	4
Q3c. Asks students to relate class discussion to context	4	4	4	4	5	5
Q3d. Assigns students research or independent study	4	4	5	5	4	4
Q3e. Encourages students to ask questions and challenge ideas	4	4	5	4	5	4
Q3f. Gives students real-life case studies to analyze	4	NR	4	4	4	3
Q3g. Conducts experiments or labs in the classroom	4	4	5	4	NR	3
Q3h. Encourages students to suggest readings and projects	4	4	4	4	3	3
4. Prompt Feedback	3	4	4	2	3	2

Q4a. Gives quizzes and homework	5	5	5	5	4	5
Q4b. Asks students to summarize readings in class	3.5	NR	4	5	2	3
Q4c. Includes problem solving and case studies in class	4	4	4	5	3	2
Q4d. Returns assignments within one week	2	4	5	2	2	1
Q4e. Gives students detailed comments	4	4	4	4	3	3
Q4f. Meets with each student at least once during term	1	3	5	1	1	1
Q4g. Gives pre-test to students at start of term	1.5	NR	4	1	2	1
Q4h. Discusses final exam with students after term	3	3	5	2	3	1
Q4i. Follows up with students who miss class	2	1	3	1	3	2
5. Time Management	4	5	4	5	4	2
Q5a. Requires students to complete assignments promptly	5	5	5	5	5	4
Q5b. Tells students how much class preparation time is expected	4	5	4	5	1	1
Q5c. Tells students how much assignment preparation time is expected	4	5	4	5	1	2
Q5d. Tells students to set time management goals	3	3	4	5	1	1
Q5e. Tells students to rehearse presentations	4	4	4	1	4	2
Q5f. Structures class to ensure equal time expectations throughout	3	5	4	2	NR	1
Q5g. Emphasizes regular work and pacing to students	5	5	5	5	5	3
Q5h. Requires students to make up for missing class	4	2	4	5	4	3
Q5i. Establishes and enforces late work penalties	4	5	4	5	4	4
6. High Expectations	5	5	4.5	5	4	2.5
Q6a. Tells students they are expected to work hard	5	5	5	5	5	5
Q6b. Tells students careers depend on hard work in class	5	5	5	5	5	3
Q6c. Communicates expectations verbally and in writing	5	5	4	5	4	5
Q6d. Asks students to set challenging learning goals	5	5	5	5	3	1
Q6e. Gives students extra credit opportunities	2	2	4	NR	NR	1
Q6f. Requires a lot of writing exercises	4	4	4	5	4	2
Q6g. Praises high achieving students in class	5	5	5	5	1	2
Q6h. Asks students for feedback on expectations	4	5	4	5	2	3
7. Diverse Talents and Ways of Learning	4	4	3.5	4	4	1.5
Q7a. Encourages students to ask questions	5	5	5	5	5	5
Q7b. Rebukes students when they disrespect each other	4	4	4	3	4	5
Q7c. Includes work in all the senses	3.5	NR	3	5	4	1
Q7d. Knows learning style of students	3	2	3	4	4	1
Q7e. Assigns work to give students learning style options	4	4	5	4	4	2

Q7f. Provides background for students who need it	5	5	5	5	5	2
Q7g. Allows students to propose independent study	1.5	NR	1	2	4	1
Q7h. Asks students about their learning style	2	2	1	4	4	1
Overall	4	4	4	4	4	3

Based on responses using five-point frequency scale: (1) Never; (2) Rarely; (3) Occasionally; (4) Often; (5) Very Often

Table 2. Faculty Baseline Student Assessment Results

	Median	BIZOZA	MUGENZI	NGABITSINZE	NIYITANGA	UWITUZE
Clarity	5	5	3	5	5	4
1. Gives several examples of each concept	5	5	3	5	5	4
2. Uses concrete everyday examples	4	4	3	5	5	4
3. Fails to define new or unfamiliar terms*	5	5	4	5	5	5
4. Repeats difficult ideas several times	4	5	3	4	5	3
5. Stresses most important points	5	5	3.5	5	5	4
6. Uses graphs or diagrams	5	5	5	5	4	5
7. Points out practical applications	4	5	4	4	4	3
8. Answers students questions thoroughly	5	5	4	4.5	5	5
9. Suggests ways of memorizing complex ideas	3	4.5	3	3	4	3
10. Writes key terms on board or overhead	4	5	4	5	5	3
11. Explains subject matter in familiar language	4.5	5	4	4	5	3
Enthusiasm	4	3	4	4	4	3
12. Speaks in dramatic or expressive way	4	4	4	4	4	4
13. Moves about while lecturing	5	5	3	5	5	2
14. Gestures with hands or arms	5	5	5	5	5	5
15. Exhibits facial gestures or expressions	4	4	3	4	4	3
16. Avoids eye contact with students*	1	1	3	1	1	2
17. Walks up aisles beside students	3	3	4	3	3.5	2.5
18 Gestures with head or body	4	2.5	4	4	4	2
19. Tells jokes or humorous anecdotes	3	3	4	3.5	2	3
20. Reads lecture verbatim from prepared notes*	3	3	2	3	3	3
21. Smiles and laughs while teaching	3	3	3	2	2	3
22. Shows distracting mannerisms*	5	5	5	5	5	5
Interaction	4	4	3	4	4	3.5
23. Encourages students to ask questions	5	5	5	5	5	3
24. Criticizes students when they make errors*	4.5	5	2	5	5	4.5
25. Praises students for good ideas	4	3	4	4	4	4
26. Asks questions of individual students	4	4	5	3	4	3
27. Asks questions of class as a whole	5	5	4	5	5	4
28. Incorporates students' ideas into lecture	4	3	4	3	5	2
29. Presents challenging, though-provoking ideas	3	4	2.5	1	3.5	3

30. Uses a variety of media and activities in class	3	4	2	3	3	2
31. Asks rhetorical questions	3	4	3	2	3	2
Organization	5	5	4	5	5	4
32. Uses headings and subheadings to organize lecture	5	5	4.5	5	5	4
33. Puts outline of lecture on board or overhead	5	5	4	5	5	4
34. Clearly indicates transition between topics	5	5	5	5	5	5
35. Gives preliminary overview of lecture	5	5	5	5	5	4
36. Explains how each topic fits into the course	5	5	4	5	5	4
37. Reviews topics covered in previous lectures	5	5	5	5	5	3
38. Periodically summarizes points previously made	5	5	4.5	5	4	5
Pacing	5	5	4	5	5	4
39. Dwells excessively on obvious points*	3	3	2	3.5	4	3
40. Digresses from major theme of lecture*	5	5	3	5	5	4
41. Covers very little material in class session*	4	5	4	2.5	3.5	4
42. Asks if students understand before proceeding	5	5	5	5	5	4
43. Sticks to the point in answering questions	5	5	4	5	5	5
Disclosure	4	4.5	4	4.5	5	3.5
44. Advises students as to how to prepare for tests	5	5	5	5	5	4
45. Provides sample exam questions	3	3	4	3	3	1
46. Tells students exactly what is expected of them	3	2.5	4	3	4	2
47. States objectives of each lecture	5	5	4	5	5	3
48. Reminds students of test dates and deadlines	5	5	4	5	5	4
49. States objectives of course as a whole	5	5	4	5	5	4
Speech	5	5	4	5	5	4
50. Stutters, mumbles, or slurs*	5	5	5	5	5	4
51. Speaks at appropriate volume	5	5	4	5	5	4.5
52. Speaks clearly	5	5	5	5	5	4
53. Speaks at appropriate pace	5	5	4	5	5	4
54. Says 'um' or 'ah'*	5	5	4	5	5	3
55. Voice lacks proper modulation*	5	5	4	5	5	4
Rapport	4	5	4	5	5	3
56. Addresses individual students by name	3	3	4	5	3	3

57. Announces availability for consultation	4	5	4	5	5	3
58. Offers to help students with problems	4	3.5	4	4.5	5	3
59. Shows tolerance of other points of view	3	2.5	3.5	3	4	4
60. Talks with students before and after class	4	5	4	4	5	3
Overall	4	5	4	5	5	4

Based on median responses of 5 students from most recent course using five-point frequency scale: (1) Almost Never; (2) Rarely; (3) Sometimes; (4) Often; (5) Almost Always; * indicates responses are coded scale inverted for consistency

Appendix B: Approved Masters of Science in Agribusiness Program

APPROVED AGRIBUSINESS MASTERS PROGRAMME

FACULTY OF AGRICULTURE

NATIONAL UNIVERSITY OF RWANDA

August, 2013

PROGRAMME PROPOSAL FORM

1. PROGRAMME DETAILS

1 Programme Title	Master of science in Agribusiness			
2 Exit Awards	Postgraduate certificate (PgCert) Postgraduate Diploma (PgDip) Master of Science (M.Sc. AgBus.)			
3 Modes of Attendance *(please tick)*	Part-time	x	Full-time	x
	Distance Learning		Work-based Learning	
	Other (please specify)		Short course	
	1 Part-time (evening)			
	2 Part –time			
	3 Combined		Other (write in)	
4 Resource group: (See Notes of Guidance)	The teaching staff will include : UR staff, visiting from: (a)MSU&WSU) RUFORUM universities, CMAA			
5 First year of presentation	January 2014		It is the 1st M.Sc. agribusiness in Rwanda	

2. PROGRAMME FUNDING AND ADMINISTRATION

1 Programme Organiser/Leader:	NUR
2 Programme Development Team	
Name	Faculty
From National University of Rwanda(NUR)	
Dr Ngabitsinze Jean Chrysostome: Program Leader HOD-AGEC Email: jcngabitsinze@nur.ac.rw Tel./Mob. +250788354845	Agriculture
Dr Uwituze Solange: Principal Investigator Email : suwituze@nur.ac.rw Tel./Mob. +250788309637	Agriculture
Prof. Rukazambuga N.T. Daniel: Career development officer Email: drukazambuga@nur.ac.rw Tel./Mob. +250788470945	Agriculture
Prof. Masanja Grace Verdiana: Gender expert Email: vmasanja@nur.ac.rw, Tel.Mob.: +250788494984	NUR/Director Research
From Michigan State University (MSU)	MSU
Dr Grecthen Neisler Email: gneisler@anr.msu.edu	MSU
Dr. Amy Jamison: Gender Specialist Email: jamisona@msu.edu	MSU
Mr John William Medendorp: Project Coordinator Email: medenjw@gmail.com	MSU
From Washington State University (WSU)	
Prof. Colleen Taugher: Career development officer Email: colleen@wsu.edu	WSU
From RUFORUM Universities/CMAA	Lilongwe University of Agriculture and Natural Resources
BUNDA College of Agriculture (Malawi)	
Dr. M.A.R Phiri	Lilongwe University of Agriculture and Natural Resources

(Library Representative)	n/a
(CIT Centre Representative)	n/a

3 FACULTY/ SCHOOL/CENTRE ADMINISTRATIVELY RESPONSIBLE FOR THE PROGRAMME

Faculty of Agriculture, Department of Agricultural Economics and Agribusiness, National University of Rwanda

4 PROJECTED STUDENT NUMBERS – GOVERNMENT- SPONSORED

	First year of presentation				
YEAR					
Level 1					
Level 2					
Level 3					
Level 4					
Level 5					
Level 6	30				
TOTAL					

5 PROJECTED STUDENT NUMBERS –PRIVATE:

YEAR								
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
Level 1								
Level 2								
Level 3								
Level 4								
Level 5								
Level 6	15	15						
Short Courses								
TOTAL								

6 WILL THE PROGRAMME BE RESOURCED FROM THE EXISTING RESOURCES OF THE CONTRIBUTING FACULTY(S), SCHOOL(S), CENTRE(S)?			
YES		NO	X
If 'No' please indicate the resource requirements, including the proposed source of funding. The program is funded by USAID as "Women Leadership Program" in agriculture. The project will pay for staff time who will teach and materials for delivering the program like books, computers, teaching materials etc. The classroom will be allocated from existing rooms at NUR main campus in Huye District through central timetabling.			

7 STAFFING (numbers of staff at each grade – or estimate)

	Year				
	2013/14	2014/15			SOURCE OF FUNDS
Academic Staffing					
Full professors	3	3			USAID/HED
Associate professors	2	2			USAID/HED
Senior lecturers	6	6			USAID/HED
Lecturers	3	3			USAID/HED
Assistant lecturers	na	na			
Tutorial assistants	na	na			
(Other – e.g. short-term expatriate)					
Support Staff	3	3			USAID/HED
Technical & Other Staff					
Equipment					
Library					
Other					

Note: you do not have to fill in the last three rows, but make a note in Q8 of any unusually high or low demands – otherwise you will be credited with the programme average for the number of students.

8 GENERAL ACCOMMODATION REQUIREMENTS

(*Please give details of the classroom and laboratory space required to deliver the programme and whether the space is currently available*)

Class rooms: The program will using classroom at NUR and will be allocated according to size by central timetabling unit.

Laboratories: The program will not need laboratory except ICT for internet and e-journals accessibility for literature and communication.

3. PROGRAMME BACKGROUND, RATIONALE AND INDICATIVE CONTENTS
(See Notes of Guidance. Continue onto one further page as necessary.)

Agriculture is the backbone of the economy in Rwanda, and it remains the main employer, especially of the poorer, smallholding farmers, and less educated segments of the population. The 2011 sensa estimations showed that the rural population relying on agriculture was79% of the total population, while the sector provides employment to 88% of the active population and contributes to 71% of export earnings. The role of agriculture in growth of the economy can be seen as having a number of aspects or dimensions. It goes beyond the fundamental one of food and fiber provision to the growing population and the complexity of contribution increases with economic growth. The contributions are made to the growth process by increasing production above subsistence level to facilitate the non farm economy growth, stimulating industries for both agricultural inputs and production processing, providing labour to other sectors, a resource of investment or government activity, and by providing increased income to the population. The recent literature recognized agriculture as an engine for growth and noted the special role of agricultural growth in poverty reduction through direct impacts on farm incomes and employment and indirect impact through growth linkages as well as its impact on food prices (Derek et.al, 2005). According the World Development Report (World Bank, 2008), agriculture contributes to development as an economic activity, as a livelihood, and as a provider of environment services and can be a main source of growth for the agriculture based countries through improving access to assets, income sources diversification, and facilitating migration out of agriculture.
The vision of Rwanda is to transform itself from subsistence agricultural to a knowledge-based economy by 2020 (Vision 2020). The achievement of this vision will require an intensification and market-orientation of agriculture on the one hand and a diversification of the economy through a proliferation of non-agricultural sectors on the other hand (World Bank, 2011). This also asks to change 50% of farms into modern type farms, to increase three times the soil productivity and to increase four to five times the work productivity (MINAGRI, 2005). There is a need for an empirical approach to apprehend the sources and determinants of agricultural growth, especially for smallholder farmers who constitute a large segment of the population, and for whom agriculture has been, for centuries, considered as the main source of household's income and a way to get out of poverty.

At the same time, a shift from subsistence agriculture to commercial agriculture has the potential to create a "gender crisis" in agriculture as the economic focus moves away from subsistence agriculture (primarily women) toward commercial agriculture (primarily men). According to the Ministry of Gender and Family promotion (MIGEPROF, Strategic Plan, 2010):

The vast majority of Rwandan population is involved in Agriculture with a predominant representation of women (86%). Rwandan populations are mostly involved in subsistence agriculture with women representing 79.6%. This gender imbalance is also verified at the level of access to and control over land. For instance, women with land title represent 10.6% while men represent 21.27%. Gender disparities are also a lived reality at the level of cash crops production. For example, women involved in coffee and tea production represent 25% as opposed to men representing 75%.

Intentional steps must be taken to prevent the marginalization of women in this process. A gender sensitive Masters of Science in Agribusiness is, therefore, very relevant to the context of Rwanda, since it will play a key role in achieving objectives of Vision 2020 while accommodating the role of women to the new agricultural realities. Agriculture is among the major sectors set to boost the development of the country. The M.Sc. program in Agribusiness will provide professionals who can help to raise the quality, productivity and production of agriculture and strengthen its contribution to the development of Rwanda while at the same time protecting and consolidating the important role of women in the sector. Agribusiness has played a big role in the development of many countries hence there is no doubt that Agribusiness can also make a significant impact in Rwanda. It will have impact on Rwandan society since graduates will acquire the skills to use and make a significant impact on society".

The transformation of Agriculture sector to a knowledge-based economy require skilled persons in Applied Economics and Agriculture, with expertise in social dynamics, especially gender. The number of persons with advanced degrees in this field is still very low in Rwanda, hence the M.Sc. in agribusiness. Currently, there no single institution offering a postgraduate program in agribusiness or agricultural economics. This is a great risk for an agricultural-based economy country where trade in agriculture in critical and planning is essential. Therefore, it is important to develop the M.Sc. in agribusiness as an initial step for further postgraduate programs in related fields.

The program will offer two years gender-sensitive training master of science in agribusiness to young men and women holding a Bachelor of Science Degree in Agricultural sciences, Economics and related fields. The training will cover courses of farm management and production economics, value chain management, natural resources and environment economics and related courses. Issues related to gender will be integrated throughout the course content.

Teaching the program will be through collaborative effort. The program is being developed in collaboration with Michigan State University (MSU) and Washington State University (WSU) and RUFORUM Universities. The teaching of modules will be also done in collaboration. In country, we shall use local staff from other faculties such as Faculty of Economics and Management (NUR), from School of Business and Finance, from High Institute of Agriculture and Livestock ISAE).

Running program and sharing module: How many taught by FACAGRI, NUR, Rwandan HEI, MSU, WSU, RUFORUM/ CMAAE etc.

Staff from FACAGRI/NUR will teach 6 modules, staff MSU will teach 6 modules, staff from RUFORUM/CMAA will teach 1 module.

External accreditation, external funding, and collaboration

The program is being developed in collaboration with Michigan State University (MSU) and Washington State University (WSU). The development of modules was jointly done by NUR, MSU, WSU and Regional staff from Bunda College of Agriculture, (RUFORUM and CMAA University member). Likewise, the teaching of modules will be shared under collaboration of the three Universities and network. The program will be validated according to HEC procedures.

The funding of the program was provided by USAID through High Education for Development (HED) as women leadership development program. At the end the project, NUR/UR will run it as other University programs using national and regional collaboration network such as RUFORUM and CMAAE.

Support for Women

As has been noted above, the role of women in agriculture has been vital for the Rwandan economy and remains vital to the future transition from a subsistence to a knowledge-based, commercial agricultural sector. Nevertheless, women are underrepresented in positions of leadership in this sector. This program seeks to remedy that disparity. However, unless this program is able to attract and retain qualified women, its impact will, in the end, be diminished. In order to support the success of women in this program, the Faculty of Agriculture will take a holistic gender-inclusive approach which addresses issues of underrepresentation of women as well as the need for mainstreaming gender issues into its curriculum. This includes the following steps.

Recruitment

The program will specifically target women with potential for leadership in agriculture. This will entail two strategies. First, promotional material will be written to encourage women to apply for the program. Second, recruitment efforts will intentionally seek out qualified women, whether in undergraduate programs, or in the public, private, or NGO sectors.

Admissions

Although it is difficult to estimate the number of female applicants or the number of qualified women candidates in any given year, the Faculty of Agriculture will intentionally seek to create

gender balance in the classroom, when possible, through the admissions process to this program. Gender will be one of the factors taken into account when considering applications.

Financial Support

The program has set as a goal to lend financial support to as many women in the program as possible. This will be accomplished through three strategies. First, we will seek external funding for scholarships for qualified women. Second, we will work together with the public, private, and NGO sectors to provide sponsorships for women who are already in the workforce. Finally, in the economic circumstances of women in the program will be taken into account in order to seek public loans for women who need financial support and to provide accommodated payment plans and tuition discounts in extreme cases.

Mentoring

The program will provide a mentoring system for all students in order to give them timely support and advice. In the case of women, however, additional measures will be taken to ensure they receive the kind of assistance they need in order to be successful in the program. First, all students will be assigned a faculty mentor who will meet regularly with them to gauge their progress in the program and address any needs that arise in the course of study. These faculty mentors will also receive gender training so that they are aware of and are able to respond to the special needs of women in the program. Second, women students will be matched with professional women who are already exercising leadership in agriculture in order to provide for them proper encouragement and role models. Third, the program will have a peer mentoring program in which successful female students in their second year are matched up incoming female students in their first year to help them navigate the academic processes.

Gender Modules

Each of the courses below described will incorporate gender modules and gender materials relevant to that particular discipline. Gender topics will be mainstreamed throughout the curriculum so that upon graduation, students will have the necessary skills to address the role of women and men in Rwanda's new agricultural realities.

Women in Leadership Training

In addition to the regular curriculum, the program will offer Women in Leadership Seminars, Workshops, and Training for both female and male students. The focus of these workshops will be on developing the professional and leadership skills of women in the agricultural workforce and sensitizing all students to gender dynamics in professional contexts.

Gender Sensitive Pedagogical Training

The program will offer gender-sensitive pedagogical training for academic staff in order to help them understand the particular issues of women in the classroom and in the workforce and in order to help them understand how better to integrate gender into classroom instruction and extra-classroom training.

Alternative Delivery Systems

In order to accommodate the schedules of working women who also might have responsibilities in the home and in their local communities, the program will offer alternative delivery systems. In the initial stages of the program implementation this will consist of providing alternative study schedules (nights and weekends). As the program progresses, we will be looking toward the possibility of providing digitized content and, if infrastructure permits and the demand exists, on-line courses.

Internships

In order to help students gain workforce experience, the program provides an internship for male and female students. This kind of workforce experience is vital, especially for women, in helping students to gain the knowledge, skills, and confidence they need in order to enter the workforce upon graduation. Additionally these internships will be an opportunity for students to gain understanding of gender dynamics in the agricultural sector and in the workplace. Gender analysis will be expected of students in the assessment of their participation in these internships.

Career Development Office

The program will offer support for students as they graduate and enter the workforce. Among the services offered by the career development office will be advice on career opportunities and choices, job postings from the agricultural sector, and training in “soft skills,” that is, resume writing, job solicitation, interviewing, and career planning. This support will take into account the needs of both men and women entering the workforce.

9. UNIT APPROVAL

Faculties/Schools/Centres contributing to Programme (this table should be signed by the Deans/Heads of all Units contributing to the programme to confirm agreement with the proposal).

Faculty	Dean /Director	Date
1	Signature:	
	Print Name: Dr Solange Uwituze	
2	Signature	
	Print Name	
3	Signature	
	Print Name	
4	Signature	
	Print Name	

Seen and noted

Library	Signature	
	Print Name	
ICT	Signature	
	Print Name	
Quality Office	Signature	
	Print Name	

10. CENTRAL AUTHORISATION

Estiminated cost in FRw

Staffing - total					
Equipment					
Library					
Other					
Overall total					

Resource Confirmation _____ Date: _____

VRAF

Approved _____ Date: _____

VRA

Program module summary

Semester	Module	Name of Module	Number of Credits	Number of Hours
SEM 1	M1	Microeconomics	10	100
	M2	Macroeconomics	10	100
	M3	Econometrics	15	150
	M4	Economics and Institutions Analysis	10	100
	M5	.Global food Systems Analysis	15	150
Total Credits: 60				
SEM 2	M6	Gender and Agriculture Development	10	100
	M7	Research Techniques	10	100
	M8	Agriculture research methodology	10	100
	M9	Agribusiness	15	150
	M10	Farm management and Agriculture finance	15	150
Total Credits: 60				
SEM 3	M11	Strategic Management in Agribusiness	15	150
	M12	Agribusiness Value-Chain Management	15	150
	M 13	Agribusiness Marketing	10	100
	M 14	Internship	20	200
SEM4	M 15	Thesis	60	600
SEM4: Total Credits 60				
PROGRAM: 240 Credits (2400 hours)				

11. PROGRAM MODULE DESCRIPTION

Module Code: _____ Faculty: Agriculture_
Module Title: Microeconomics
Level: 6 Semester: 1 Credits:____10
First year of presentation: 2013 Administering Faculty: Agriculture
Pre-requisite or co-requisite modules, excluded combinations

The candidate should have completed the principles of economics

Allocation of study and teaching hours

Total learner hours __100_____	Learner hours
Lectures	30
Seminars/workshops	0
Practical classes/laboratory	20
Structured exercises	10
Set reading etc.	10
Self-directed study	10
Assignments – preparation and writing	10
Examination – revision and attendance	10
Other:	0

Brief description of aims and content

This course teaches the fundamentals of microeconomic concepts of supply and demand analysis in the context of organized agricultural firms and individual firms. The course is designed to provide learners with tools to analyze and formulate solutions to problems faced in small-holder farming systems with special emphasis on challenges faced by women. After a brief review of mathematical applications in microeconomics, the course focuses on lectures and problem sets with solution keys illustrating the concept application.

Learning Outcomes

Knowledge and Understanding

Having successfully completed the module, learners should be able to demonstrate knowledge and understanding of: Advanced theories in microeconomics such as consumer and producer behaviour, market analysis, welfare economics, game theory and economics of information, as well as gender dynamics in microeconomic decision-making.

Cognitive/Intellectual skills/Application of Knowledge

Having successfully completed the module, learners should be able to: analyze agricultural scenarios in modern economic models with a gender lens.

Communication/ICT/Numeracy/Analytic Techniques/Practical Skills

Having successfully completed the course, learners should be able to: analyze and make a good interpretation of past, current and future economic scenarios in agriculture with a gender lens.

General transferable skills

Having successfully completed the module, learners should be able to: use advanced mathematical tools, for empirical understanding of gender sensitive and gender inclusive agricultural and economic situations.

Indicative Content

Mathematical review of basic concepts, first and second order conditions and comparative analysis
Fundamental concepts in theory of firm such as technology, profit maximization, cost minimization and imperfect markets
Externalities and efficiency conditions
Public goods
General equilibrium
Welfare economics
Gender dynamics in microeconomic decision-making.

Learning and Teaching Strategy

This is a theory-based module. The learning strategy will rely on lectures and reading outside of class. Students will be tested on their level of understanding of the materials covered in class.

Assessment Strategy.

- Daily Individual presentation and handing-in of the practical presented course work assignment
- The final examination on the module

Assessment Pattern

Reading assignments constitute 40% of the module grade which will be tested on partial and final exams. Students have the opportunity to make up 60% of their note through homework assignments, both in group and individually.

Strategy for feedback and learner support during module

Learners will be allocated consultation time for any clarification needed.

Indicative Resources

Core Text:

Wolfstetter, E. (1999), Topics in Microeconomics, Cambridge University Press
Bolton, P., Dewatripont, M. (2005), Contract Theory, MIT Press

Campbell, D.E. (2006), Incentives, 2nd edition, Cambridge University Press
Vega-Redondo, F. (2003), Economics and the Theory of Games, Cambridge University Press

Background Texts

Journal articles

World Development (Vol. 23, No. 11, 1995) Special Issue - Gender and Economics
http://www.sciencedirect.com/science/journal/0305750X/23/11

Key websites and on-line resources

GFAR- Global Forum on Agricultural Research
http://www.egfar.org/our-work/transforming-institutions/gender-agriculture

Africa Agribusiness Magazine www.africaag.org

Gender in Ag http://www.genderinag.org/

FAO Men and Women in Agriculture: Closing the Gap http://www.fao.org/sofa/gender/en/

Gender and market-oriented agriculture http://www.new-ag.info/en/pov/views.php?a=1902

Gender Equality and Trade Policy: Trade, Agriculture, Food Security and Gender Equality
http://www.un.org/womenwatch/feature/trade/Trade-Agriculture-Food-Security-and-Gender-Equality.html

Other resources

Gelb, Alan. 2001. Gender and Growth: Africa's Missed Potential. The World Bank, Washington, DC. https://openknowledge.worldbank.org/handle/10986/9789

Van Stavern, I. (2001). Gender biases in finance. Gender and Development, 9(1):9–17

**Njuki, J., Kaaria, S., Sanginga, P., Kaganzi, E. and Magombo, T. (2007). Empowering Communities through Market led Development: Community Agro-enterprise Experiences from Uganda and Malawi. Paper presented at the Farmer First Revisited: Farmers participatory research and development twenty years on.

Bonvillain, N. (2007). Chapter 7: Global economic development. In Women and men: Cultural constructs of gender. (pp. 213-254). Pearson Prentice Hall: New Jersey.

Mascia-Lees, Frances E. (2010). The global economy, neoliberalism, and labor. In Gender and difference in a globalizing world, (pp. 162–177), Long Grove, IL: Waveland Press.

Module Code: _____ Faculty: Agriculture_
Module Title: Macroeconomics
Level: 6 Semester: 1 Credits:____10
First year of presentation: 2013 Administering Faculty: Agriculture
Pre-requisite or co-requisite modules, excluded combinations

Principles of Economics

Allocation of study and teaching hours

Total learner hours __100_____	Learner hours
Lectures	30
Seminars/workshops	0
Practical classes/laboratory	20
Structured exercises	10
Set reading etc.	10
Self-directed study	10
Assignments – preparation and writing	10
Examination – revision and attendance	10
Other:	0

Brief description of aims and content

This course will introduce learners to classic macroeconomic issues such as growth, inflation, unemployment, monetary and fiscal policies such as interest rates and exchange rates. Learners will become familiar with the measuring of these macroeconomic variables and how different shocks to the economy affect macroeconomic policy in an open economy. The course analyzes different scenarios of growth with at least two case studies from the East African region. Analytical tools will enable learners to understand Rwanda's macroeconomic performance and how different internal and external economic shocks affect specific macroeconomic policies.

Understanding of gender relevance to Socio-economic sciences requires thorough comprehension of socio-economic challenges confronting Rwanda. Men and women play very distinct roles in Rwandan society and they live these roles very differently. The social and economic systems are human constructs. Learners should understand these constructs, their mechanisms and relations at play within these constructs. Equal participation of men and women in the labour market is fundamental for the attainment of growth, employment and competitiveness. Trends in society result from human actions, interactions, roles and behaviour; therefore they have a gender dimension. Social, economic and developmental objectives are interlinked and highly gender-sensitive. Learners need to understand and know how to consider these issues in a macro economics. This module will equip learners with Gender knowledge and skills as a relevant variable to be addressed in all socio-economic activities in the agricultural sectors.

Learning Outcomes

Knowledge and Understanding

Having successfully completed the module, learners should be able to demonstrate knowledge and understanding of:
Basic macroeconomics principles
Money markets and market equilibrium
Nature of forces that affect internal and external deficits
Inflation and growth of per-capita income
Critical thinking applied to macroeconomics problems
Gender relevance to macroeconomics

Cognitive/Intellectual skills/Application of Knowledge

Having successfully completed the module, learners should be able, with a gender lens, to:
Apply critical thinking to problems in macroeconomics
Recognize patterns across countries concerning macroeconomic problems
Understand arguments used by experts in justifying macroeconomic measures
Have a global awareness about macroeconomics

Communication/ICT/Numeracy/Analytic Techniques/Practical Skills

Having successfully completed the module, learners should be able, with a gender lens, to:
Learn the principles of the scientific method to solving problem sets in macroeconomics
Understand academic papers on macroeconomic issues based on quantitative data
Acquire skills to debate the reasoning behind macroeconomic measures

General transferable skills

Having successfully completed the module, learners should be able, gender sensitively, to:
Apply scientific method to solving problem sets
Synthetize complex information into coherent briefs
Critique local and regional macroeconomic measures with arguments based on macroeconomic theory

Indicative Content

Introduction: macroeconomics and the gains from internal and external trade
Thinking like economists when analyzing macroeconomic theory
Supply and demand: determinants of change

Measuring Rwanda's national income
The cost of living in different countries: case studies and illustrations
Saving versus investment: why are both important in macroeconomics?
Monetary policy
Aggregate demand and aggregate supply
Gender dynamics in macro-economics

Learning and Teaching Strategy

This is a context-rich course which will imply the use of business case studies, group competitions and key lecture presentations. Through use of case studies learners will be exposed to a number of problem sets which will provide skills in identifying key business issues and problems. Each case study will include a gender dimension analysis. In addition, specific attention will be given to case studies which demonstrate gender issues.

Assessment Strategy

It is the goal of this course that learners become conversational in macroeconomics with a gender lenses, although not proficient to solve complex problem sets and calculations. This is a theoretical class where the capacity of the learner to understand the concepts will be measured through short essays and class participation. Problem sets will also be provided and solved individually including exhibiting ability to do gender analysis.

Assessment Pattern

Reading assignments constitute 40% of the module grade which will be tested on partial and final exams. Students have the opportunity to make up 60% of their note through homework assignments, both in group and individually.

Strategy for feedback and learner support during module

The teaching strategy implies significant use of technology (mainly email) for feedback outside of class. Assignments and problem sets will also encourage learners to contact the professor and consult key reference materials whenever instructions are unclear.

Indicative Resources

Core Text

Mankiw, Gregory. 2011. Principles of Macroeconomics. Cengage Learning. 6th Edition. ISBN-10: 0538453060, ISBN-13: 978-0538453066

Other Resources

This course requires basic computer skills and access to on-line resources during and outside of class.

Rice, J. S. (2010). Free trade, fair trade and gender inequality in less developed countries. *Sustainable Development*, 18:42–40.

Nallari, R. & B. Griffith. 2011. Gender and Macroeconomic Policy. World Bank: Washington, D.C.

Module Code: _____ Faculty: Agriculture_
Module Title: Econometrics
Level: 6 Semester: 1 Credits:____15
First year of presentation: 2013 Administering Faculty: Agriculture
: Pre-requisite or co-requisite modules, excluded combinations

Candidate should have studied and passed mathematics and statistics

Allocation of study and teaching hours

Total learner hours __100_____	Learner hours
Lectures	30
Seminars/workshops	0
Practical classes/laboratory	20
Structured exercises	10
Set reading etc.	10
Self-directed study	10
Assignments – preparation and writing	10
Examination – revision and attendance	10
Other:	0

Brief description of aims and content

The main objective of this course is to enable learners to refresh their knowledge of basic concepts of empirical analysis to be studied in the Applied Econometrics module:
Enable students to understand the practical and theoretical foundation of regression analysis;
Enable students to cope with practical consequences related to hypothesis violation of specified models such as Multicollinearity, Heteroscedasticity, and Autocorrelation;
Enable students to specify and estimate the model based on agricultural and economic theory and available secondary data through practical and assignments;
Introduce students to the application of the statistical software such as SPSS for data processing and analysis.
Enable students to understand the importance, place, and application of gender disaggregation in regression analysis.

Learning Outcomes

Knowledge and Understanding

Having successfully completed the module, students should be able to demonstrate knowledge and understanding of:

Fundamentals of Econometrics Regression analysis
Regression analysis and Hypothesis testing
How to solve problems related to the violation of the OLS regression
Links between econometric results and policy formulation.
Importance of sex and gender disaggregation analysis

Cognitive/Intellectual skills/Application of Knowledge

Having successfully completed the module, students should be able, with a gender lens, to:
Analyse agricultural scenarios using econometrics
Estimate the regression models and interpret the results
Students will be able to understand the tools of Econometrics and apply them

Communication/ICT/Numeracy/Analytic Techniques/Practical Skills

Having successfully completed the module, students should be able to: communicate the gender disaggregated results obtained using computer programmes through practical sessions.

General transferable skills

Having successfully completed the module, students should be able, with a gender lens, to: do advanced statistical analyses, empirical understanding of agricultural /economic situations.

Indicative Content

General introduction to Econometrics
The simple regression model
Applications of regressions and limitations to predictions
Multiple regression analysis
Multicollinearity
Heterocedasticity
Autocorrelation
Exercise analysis

Learning and Teaching Strategy

This course integrates theoretical and practical aspects of econometric analysis. Students are introduced to fundamentals of econometrics underpin this course and possible areas of its application in Agriculture. Furthermore, it is planned that students will be enabled to review each chapter by applying SPSS or STATA for practical assignment. At this stage, the focus is made to understanding the logic behind each step of sex and gender disaggregated data analysis. A more participatory approach will be applied. It is expected that all students will have taken principles

of economics courses covering both microeconomics and macroeconomics and an introductory statistics class.

Assessment Strategy
The assessment strategy will be comprised with in-course assessment and final assessment. Assignments will be part of the practical assessment which in turn will be part of the final assessment.

Assessment Pattern

Component	Weighting (%)	Learning objectives covered
In-course assessment:	40	The main objective of this course is to enable students to refresh their understanding of basic concepts in econometrics; Enable students understand the practical and theoretical foundation of regression analysis;
Final assessment:	60	Enable students to cope with practical consequences related to hypothesis violation of specified models such as Multicollinearity, Heteroscedasticity, and Autocorrelation; Enable students to specify and estimate the model based on agricultural and economic theory and available secondary data through practical and assignments; Introduce students to the application of the statistical software such as SPSS for data processing and analysis.

Strategy for feedback and student support during module

Students will be allocated consultation time for any clarification needed. They will also be given time during the class teaching to ask questions or comment to lecture's question. At the end of the course teaching and practical assignment, a session will be organized for potential clarifications needed.

Indicative Resources

Core Text

Greene, W., (2003). Econometric Analysis, 5th Edition. Prentice Hall, NJ.
Gujarati, D. (2003). Basic *Econometrics*. McGraw- Hill, 4th edition, New York.
Verbeek, M.(2008) . A guide to Modern Econometrics, 3rd edition, England

Corner, L. From margins to mainstream: From gender statistics to engendering statistical systems. UNIFEM: http://www1.aucegypt.edu/src/engendering/Documents/engendering%20corporate%20governance/Margins2Mainstreamgengerstatistics.pdf

Computer requirement

Because of multiple assignments outside of class, students are required to have access to a computer with the required software installed.

Module Code: _____ Faculty: Agriculture_
Module Title: Economics and Institutional Analysis
Level: 6 Semester: 1 Credits:____10
First year of presentation: 2013 Administering Faculty: Agriculture
: Pre-requisite or co-requisite modules, excluded combinations

Candidate should have studied and passed Microeconomics, Macroeconomics

Allocation of study and teaching hours

Total learner hours __100_____	Learner hours
Lectures	30
Seminars/workshops	0
Practical classes/laboratory	20
Structured exercises	10
Set reading etc.	10
Self-directed study	10
Assignments – preparation and writing	10
Examination – revision and attendance	10
Other:	0

Brief description of aims and content

This course studies the role of institutions in enabling laws, contracts, economic transactions and exchange and other conventions affecting behaviour of economic agents and economic activity. A brief of the history of economic thought history and the theories behind institutional and behavioural economics will be studied. At the end of the course, learners are expected to understand the nature, role and evolution of institutions in the economy, including firms, markets and states.

With a gender perspective, learners should be equipped to study and provide answers to questions related to how institutions address growth, employment and competitiveness; social cohesion, educational challenges in Rwanda; socio-economic sustainability, environmental challenges, quality of life and global interdependence. Rwanda aspires to attain economic growth and social tranquillity walking along a path of "knowledge-based society." Equal participation of men and women in the labour market is fundamental for the attainment of growth, employment and competitiveness. Trends in society result from human actions, interactions, roles and behaviour; therefore they have a gender dimension. Social, economic and developmental objectives are interlinked and highly gender-sensitive. Learners need to understand and know how to consider these issues in a given scientific field. This module will equip learners with Gender knowledge and skills as a relevant variable to be addressed in all socio-economic activities in the agricultural sectors.

Learning Outcomes

Knowledge and Understanding

Having successfully completed the module, learners should be able to demonstrate knowledge and understanding, with a gender perspective, of:

The main challenges affecting agricultural development in Africa and the need for an alternative economic paradigm to be able to find solutions and sustainable interventions;

The differences between New Institutional Economics and Neo-classical Economics;

The broad definition of institutions and how this understanding assists in better conceptualizing agricultural development challenges in Africa;

The role of institutions and institutional change in economic development;

The framework for institutional analysis

Cognitive/Intellectual skills/Application of Knowledge

Having successfully completed the module, learners should be able to:

Appreciate the weaknesses (including the gender aspects) of analytical approaches adopted thus far and the need to broaden our analyses particularly to think outside the box.

Apply the concepts and theories in a gender perspective in their research work;

Build case studies to demonstrate their understanding of the concepts and theories learned in this course;

Better analyse agricultural development challenges facing African economies with particular focus on Rwanda.

Communication/ICT/Numeracy/Analytic Techniques/Practical Skills

Having successfully completed the module, learners should be able to:

Design their own research applying the concepts and theories learned in the module;

To design Case Studies applying the concepts and theories learned in the module;

Use the Framework for Analysing Institutions;

Enrich their thesis research results discussion with more in-depth and gender sensitive explanation using concepts and theories learned from the module.

General transferable skills

Having successfully completed the module, learners should be able to:

Analyse the gendered constraints on agricultural and rural development through the application of New Institutional Economics Philosophy and thereby identifying the opinions and / or interventions for accelerating the process of agricultural and rural development.

Indicative Content

This course will be divided in the following topics:

Topic 1: The Agricultural Development Challenge in Africa
The topic will give a historical background to agricultural development in Africa in general and in Rwanda more specifically paying particular attention to policy change and disappointments with adoption of Structural Adjustment Programmes (SAPs) in most African economies and the gendered dynamics of the sector's development. This will provide the basis for advocating for alternative economic paradigm to be able to find solutions and sustainable interventions.

Topic 2: Introduction to New Institutional and Behavioural Economics
Institutional Economics versus Neo-classical Economics
Emergence of New Institutional Economics
Definition of New Institutional Economics
Branches of New Institutional Economics
Gender Dynamics of New Institutional Economics

Topic 3: Key Concepts and Core Assumptions in New Institutional Economics
Imperfect information about the intentions and behaviour of other economic actors
asymmetric information
Opportunism: "self-interest with guile" (Williamson 1985)
Shirking
Adverse selection
Moral hazard
Strategic default
Free-riding
Hold-up
Bounded rationality
Institutional environment and institutional arrangements
Contract enforcement
Compounded system

Topic 4: Theories of New Institutional Economics

The Economics of Imperfect Information
Incomplete Contracts Theory
Transaction Cost Economics
Theory of Collective Action
Property Rights and resource management
Horizontal and vertical coordination
Theory of Trust and contract performance
Gender Dimension in New Institutional Economics

Topic 5: New Institutional Economics Analysis of Markets and Market Structure
Market failure and missing markets
Labour markets and institutional arrangements
Land markets
Rural Financial Markets
Alternative Institutions to counter Market Failures
Gender Dynamics

Topic 6: A Framework for Analysing Institutions
Origins and Layout
Action Domain
Institutions and their attributes
Activities and attributes
Actors and their attributes
Environment
Physical and technical
Socioeconomic environment
Policy and governance environment
Action domain-Environment interactions
Action Outcomes
Gender Analysis of Institutions

Topic 7: The Techno-Economic Characteristics and Agricultural Systems in Developing Countries
The approach here would be gender sensitive analysis of techno-economic characteristics of a sub-sector alongside the capabilities of the different players in responding to these. These concepts should throw up a range of challenges in terms of horizontal and vertical coordination which require institutional responses.

Topic 8: Case Studies
Case studies will focus on specific themes using basic approach of techno-economic characteristics and strengths and weaknesses of different players. Thus the case studies should provide insights into:
Market access (grades, standards, food safety, quality, export markets, collective action, supermarkets);
Financial services and input markets (interlocking markets);
Sector organization, public goods, market and non-market coordination;
Rural institutions: cooperatives and farmers' organizations, land tenure, sharecropping, contract farming;
Regulation;
Natural Resource Management;
Role playing by various economic agents and gender in institutional analysis

Include gender mainstreaming in Economics and institutional Analysis

Learning and Teaching Strategy

This course is unique in its focus as well as its content. It tackles broad issues, concepts, theories and borrows from a wide range of disciplines, including the gender dimension. This makes it quite unique and sometimes not easy to teach and make learners understand what it is all about. The course should be taught like preaching to the unconverted.

In view of the unique nature of the course, the role of the lecturer should be that of a facilitator to induce interest in the learners to explore more issues by themselves. Thus, each lecture session should be followed by learners working on given topics either individually or in groups which they then present in class. This provides a rich basis for active discussion by the class. What this means is that the course should not be taught in the typical lecture mode but rather expose issues to raise interest and guide learners on the topics that they need to work on. In terms of time allocation, the lecturer should take up 40% and the learners take up 60% of the time allocated for lectures and practical sessions. Experience has shown that this strategy has allowed lecturers to cover a wide range of issues within the semester allocated to the course.

Assessment Strategy

In view of the fact that much of the course material will be covered through learners working on given assignments followed by presentations and discussion in class, a heavier weight should be given to course work. This should be 60% of the course grade coming from the course work and 40% coming from the end of course examination. This means that each assignment should be graded by the lecturer. However, since one of the concepts learnt in this course is “Free-riding” learners should also through a very well designed system be allowed to grade each other. The grading system should be designed in such a way that there is no collusion among them. This will be for each group member’s participation in group assignments as well as the quality of presentations that are made in class.

Assessment Pattern

Component	Weighting (%)
In-course assessment:	60%
Final assessment:	40%

13. Strategy for feedback and student support during module
As it has already been pointed out, this course will largely be managed by the learners themselves while the role of the lecturer will be that of a facilitator. Each assignment given to learners will require very detailed and clear instructions. Feedback will be provided through classroom discussions.

Indicative Resources

Core Text

Institutional Economics Perspectives on African Agricultural Development. Edited by John F. Kirsten, Andrew R. Darward, Colin Poulton and Nick Vink (2009). International Food Policy Research Institute. ISBN 978-0-89629-781-4

Poulton, C., Dorward A., Kydd, J., Poole, N., and Smith, L., 1998. A New Institutional Economics Perspective on Current Policy Debates. In Dorward, A., Kydd, J., and Poulton C. (Eds.). Smallholder Cash Crop Production under Market Liberalization: A New Institutional Economics Perspective. Oxford: CAB International. ISBN 0851992773

Background Texts

Binswanger, H.P. and Rosenzweig, M.R. (1986). Behavioral and Material Determinants of Production Relations in Agriculture. Journal of Development Studies Vol. 22 no.3: 503 – 539.

Bromley, D.W. & Chavas, J.P. 1989. On Risk, Transactions, and Economic Development in the Semi-Arid Tropics. *Economic Development and Cultural Change*. Vol. 37, No. 4: 719 – 736. Development. In G.J. Scott (ed). *Prices, Products and People: Analyzing Agricultural Markets in Developing Countries.* Boulder: Lynne Reinner.

Delgado, C. 1999. Sources of Growth in Smallholder Agriculture in Sub-Saharan Africa: The Role of Vertical Integration of Smallholders with Processors and Marketers of High Value-Added Items. *Agrekon*. Vol 38. Special Issue: May: 165 – 189

North, D.C. 1998. Economic Performance through Time. In Staatz, J.M. and Eicher, C.K. *International Agricultural Development*. Third Edition. Baltimore and London: The John Hopkins University Press.

Journals

Hubbard, M. 1997. The New Institutional Economics in Agricultural Development: Insights and Challenges. *Journal of Agricultural Economics*. Vol. 48, No. 2: 239 -250.

Kherellah, M. and J. Kirsten. 2001. The New Institutional Economics: Applications for Agricultural Policy Research in Developing Countries. *MSSD Discussion Paper No 41*.

Nabli, M.K. & Nugent, J.B. 1989. The New Institutional Economics and its Applicability to Development. *World Development*. Vol. 17, No. 9: 1333 – 1347.

Paarlberg, D. 1993. The Case for Institutional Economics. American Journal of Agricultural Economics. Vol. 75, August: 823 – 827.

Poulton, C., Dorward A., Kydd, J., Poole, N., and Smith, L., 1998. A New Institutional Economics Perspective on Current Policy Debates. In Dorward, A., Kydd, J., and Poulton C. (Eds.). Smallholder Cash Crop Production under Market Liberalization: A New Institutional Economics Perspective. Oxford: CAB International

Key websites and on-line resources
www.academic.edu/papers/in/New_Institutional_Economics
www.jstor.org/stable/116895
www.ruhalayaseminary.org/demo/new-institutional-economics
www.ifpri.org/sites/default/files/pubs/divs/intid/dp/papers/msspdp41.pdf
www.institutional-economics.com
www.kursusinfo.life.ku.dk/kurser/290061/presentation
www.epw.in/special-articles/new-institutional-economics.html

Computer requirements:

This is a very theoretical course. However, computers will be required for preparing assignments and presentations which will be made in Power Point in class.

Module Code: _____ Faculty: Agriculture_
Module Title: Global Food Systems Analysis
Level: 6 Semester: 1 Credits: ____15
First year of presentation: 2013 Administering Faculty: Agriculture
: Pre-requisite or co-requisite modules, excluded combinations

Candidate should have studied and passed Microeconomics, Macroeconomics

Allocation of study and teaching hours

Total learner hours __150_____	Learner hours
Lectures	45
Seminars/workshops	20
Practical classes/laboratory	20
Structured exercises	15
Set reading etc.	10
Self-directed study	15
Assignments – preparation and writing	15
Examination – revision and attendance	10
Other:	0
Total	150

Brief description of aims and content

The course gives learners a contemporary description of today's global food systems by food categories, urban and rural environments and different industry organizational aspects from production to retail and processing. The rules governing trade within and across countries and the relevance of public and private agricultural standards affecting health and the environment will be also studied.

Women's and men's roles, power relations, ownership, and cultural practices are different. Learners should be exposed to the gender dimension in Food systems in connection with food, seafood, health and well-being, consumers, nutrition, food processing, food quality and safety, environmental impacts and total food chain. Improved Food Systems aim to reduce the burden of the vicious circle of poverty, malnutrition and mortality. This cycle includes: inadequate family income, inadequate diet, inadequate resistance to infection, inadequate learning ability, inadequate energy intake, inadequate work output, increased food demand to offset infection, increased food demand by pregnant and nursing mothers and weanlings, increased infant mortality, increased birth rate to offset mortality, and inadequate learning ability. In Rwanda, like the rest of Sub-Saharan Africa, women (and children) are more likely than men to be trapped in this cycle as a result of gendered power relations, ownership, and cultural practices. It is important to be able to analyse how the different hierarchical situations societies assign to men

and women determine how food is produced, traded and consumed. Learners should be able to unpack the gender dimension in Food Systems and thus be able to assess how gender impacts on food production and food consumption.

Learning Outcomes

Knowledge and Understanding
Having successfully completed the module, learners should be able to demonstrate, with a gender lens, knowledge and understanding of:
The fundamental characteristics of food systems
Food systems theories, frameworks and models
Paradigms in food systems
gendered food systems

Cognitive/Intellectual skills/Application of Knowledge
Having successfully completed the module, learners should be able, with a gender lens, to:
Explain the fundamentals of food systems
Apply systems' thinking to selected food system challenges
Describe the elements of sustainability of food systems
Explain why food systems is necessary when drafting policy
Understand resilience and vulnerability of food systems in different agro ecologies (including aspects related to foodprints and climate change)
Explain and unpack gender issues in food systems

Communication/ICT/Numeracy/Analytic Techniques/Practical Skills
Having successfully completed the module, learners should be able, in a gender perspective, to:
Integrate food systems theory to critiques to the public food systems policy in Rwanda
Compare the national food systems with its neighbours
Identify complementarities of the food system at a regional level
Develop essays describing food systems from community level to regional level

General transferable skills
Having successfully completed the module, learners should be able, in a gender perspective, to:
Discuss issues in food systems with a contemporary focus
Define food prints in scientific and lay terminology
Summarize and interpret academic and non-academic literature on food systems and what it means to agribusiness
Describe the importance of food systems for the sustained food security of a country, a region and the globe
Explain global dynamics in food systems for specific commodities traded worldwide (maize, wheat, rice, others).

Indicative Content

Introduction: Food systems as a recent discipline
Theories supporting food systems
Paradigms in food systems
Frameworks and models in food systems
Sustainability, vulnerability and resilience in food systems
Climate change and its effect on food systems worldwide
Foodprints
Policy tools in food systems
Interconnected food systems at a global, regional and national scale
Gender dimension in food systems

Learning and Teaching Strategy

Weekly topics will be defined and a set of papers related to each topic will be circulated in advance. The class relies on the student's weekly readings and in-class participation. A term paper at the end of the course will be written targeting the description of food systems involving commodities traded at a global scale.

Assessment Strategy

Learners will be graded based on class attendance, class participation and the final term paper.

Assessment Pattern

Component	Weighting (%)
In-course assessment:	
Off-class reading assignments	20
Class participation in discussions and debates	20
Group exercise assignments	30
Final term-paper writing and presentation	30
Final assessment:	100

Strategy for feedback and student support during module

During the length of the module learners will be encouraged to stay in close contact with the instructor through virtual teaming tools and techniques (e.g., Skype, email, etc.).

Indicative Resources

Core Text and journal articles

Kickbusch Ilona. 2010. The Food System: a prism of present and future challenges for health promotion and sustainable development. Health Promotions Switzerland. White paper.

Daniel Kim. 1999. Introduction to Systems Thinking. Pegasus Communications.

Jessica Duncan and Ken Hatt. 2010. Food Systems: A Multidisciplinary Approach to Analysis and Learning. In: M. Fritz, U. Rickert, G. Schiefer. Eds. System Dynamics and Innovation in Food Networks.

Conner, David S. and Levine, Ralph. 2005. Circles of Association: The Connections of Community-Based Food Systems, Journal of Hunger & Environmental Nutrition, 1:3, 5 – 25

Wezel, A. 2009. Agroecology as a science, a movement and a practice. A review. Agron. Sustain. Dev.

Christine A. King. 2008. Community Resilience and Contemporary Agri-Ecological Systems: Reconnecting People and Food, and People with People. Syst. Res. 25, 111-124

Module Title: Gender and Agricultural Development

Module Code: _____ Faculty: Agriculture_
Module Title: Gender and Agriculture Development
Level: 6 Semester: 2 Credits:____10
First year of presentation: 2013 Administering Faculty: Agriculture
: Pre-requisite or co-requisite modules, excluded combinations

Allocation of Study and Teaching Hours

Total learner hours 100	Learner hours
Lectures	30
Seminars/workshops	0
Practical classes/laboratory	20
Structured exercises	10
Set reading etc.	10
Self directed study	10
Assignments – preparation and writing	10
Examination – revisions and attendance	10
Other	0

Brief Description of Aims and Content

Women comprise 43 percent of the agricultural workforce in developing countries, yet female farmers receive only 5% of all agricultural extension services, and only 10% of total aid for agriculture, forestry and fishing goes to women. This gender gap imposes costs on the agriculture sector, the broader economy and society as well as on women themselves. To address this issue, this module focuses on enhancing student knowledge, skills and abilities to increase gender equality and women's empowerment through international, national and local development projects in the agriculture and environment sectors. Through successful completion of the course, students will be able to: analyze significant challenges to gender equity and women's empowerment through agricultural and natural resource development; apply gender

and development theories, frameworks, concepts and tools for data collection to improve development outcomes; identify key stakeholders and their associated approaches to gender and development; and design appropriate program interventions to address challenges to gender equity in these sectors.

Learning Outcomes

Knowledge and Understanding
Having successfully completed the module, learners will gain and demonstrate:
Knowledge and understanding of past and current theoretical approaches to the field of gender and development;
Knowledge on the gendered barriers in access to resources, decision making, and other key development issues in the agriculture sector in multiple cultural contexts;
Familiarity with importance of gender analysis throughout the various stages of the development project cycle.
Advantages of involving both men and women in initiatives to address gender issues
"Good practice" examples of gender integrated case studies concerning the impact of globalization and "development" on human, agricultural and environmental systems.

Cognitive/Intellectual Skills/Application of Knowledge
Having successfully completed the module, learners will apply:
Knowledge of theoretical perspectives concerning gender and development to interpret policy directives and outcomes;
Theoretical perspectives to increase the effectiveness of new policy directives and development activities with respect to gender equitable outcomes;

Communication/ICT/Numeracy/Analytic Techniques/Practical Skills
Having successfully completed the module, learners will utilize:
Tools and techniques of gender analysis to collect appropriate data, assess gendered challenges, collaboratively design solutions with full participation from all stakeholder groups, making sure that those at the most local level are indeed adequately represented
Gender analysis to examine gender roles and relations in crop agriculture and livestock activities across multiple cultural settings
Conceptual frameworks, tools and techniques to increase understanding of gendered activities related to crop agriculture, livestock rearing, land and labor issues, agriculture markets, rural finance, water resource management, adaptation to climate change, agricultural education, education, extension and ICT.
A comparative perspective through comparing gendered crop and livestock activities across multiple cultural and socioeconomic situations in Rwanda and East Africa.

General Transferable Skills
Having successfully completed the module, learners will be able to understand and apply the above mentioned theories, frameworks, methods and techniques to multiple stakeholder

activities, e.g. activities funded or implemented by multiple international donors, the Government of Rwanda, local governments, nonprofits and private sector entities.

Indicative Content

Brief history of development economics and gender and development as fields of study;
Theories, concepts, analytical frameworks related to gender and development;
Key stakeholders working in the field of gender and agricultural development, with an emphasis on the Rwandan national and East African regional contexts;
Applications of gender analysis throughout the project cycle;
Tools and techniques for gender analysis;
Men and masculinities in development;
Gender analysis for:
Crop agriculture and livestock
Land and labor issues
Agricultural markets and rural finance
Water resource management and climate change
Agricultural education, extension and ICT
Case study analysis – the big picture.

Learning and Teaching Strategy

Students will learn through interaction with multiple media and points of view. Numerous opportunities will be offered to demonstrate learning outcomes. As a result, all types of learners should be able to increase their knowledge skills and abilities to increase gender equality and women's empowerment through agricultural development projects.

Assessment Strategy

Learners will have multiple opportunities through a variety of assessment formats to demonstrate their acquisition and application of theoretical perspectives, approaches, methods and tools related to gender and agricultural development.

Assessment Pattern

Component	Weighting (%)
In-course assessment:	
Class participation – attendance, contribution to class discussions	10
Group case study assignment – final product and intra-group assessment	10
Individual case study assignment	30

Written assignments	20
Short quizzes	20
Summary quiz	10
Final assessment:	100

Strategy for Feedback and Learner Support during Module

During the length of the module, learners will be encouraged to stay in close contact with the instructor through in-person and virtual meetings, teaming tools and techniques.

Indicative Resources

Bannon, Ian and Maria C. Correia, ed.s (2006) Chapters 10 and 11. The Other Half of Gender: Men's Issues in Development. Washington, DC: The World Bank, pp.219-260.

FAO (2001) Socio-Economic and Gender Analysis Programme (SEAGA): Field Level Handbook. Rome: Food and Agriculture Organization of the United Nations, pp.1-13, 45-131.

Manfre, Cristina, Deborah Rubin, Andrea Allen, Gale Summerfield, Kathleen Colverson, Mercy Akeredolu (2013) Reducing the Gender Gap in Agricultural Extension and Advisory Services: How to Find the Best Fit for Men and Women Farmers, MEAS Series on Good Practices and Best Fit Approaches. For USAID "Modernizing Extension and Advisory Services" (MEAS) www.meas-extension.org.

Parpart, Jane L., M. Patricia Connelly, and V. Eudine Barriteau, eds. (2000) Theoretical Perspectives on Gender and Development. Ottawa, Canada: International Development Research Centre (IDRC).

Rubin, D., C. Manfre and K. Nichols Barrett (2009) Promoting Gender Equitable Opportunities in Agricultural Value Chains: A Handbook. USAID/WID Greater Access to Trade Expansion (GATE) Project. Washington, D.C.: United States Agency for International Development.

World Bank (2009) Gender in Agriculture Sourcebook. Washington, DC: World Bank, IFAD, FAO.

Background Texts

Chant, Sylvia and Matthew C. Gumann (2002) 'Men-streaming' gender? Questions for gender and development policy in the twnty-first century. Progress in Development Studies 2(4):269-282.

Cleaver, Francis (2002) Men and Masculinities: New Directions in Gender and Development. Masculinities Matter! Men, Gender and Development. London: Zed Books, pp.1-18.

FAO (2011) Notes on Livestock, Food Security and Gender Equity. Animal Production and Health Working Paper. No. 3. Rome.

FAO (2011) The role of women in agriculture. ESA Working Paper 11-02. Rome: Food and Agriculture Organization of the United Nations. pp. 1-46.

Martinussen, John (1996) Chapter 3. Conceptions and Dimensions of Development. Society, State and Market: A Guide to Competing Theories of Development. London & New Jersey: Zed Books Ltd.

Other Resources

Ali, Daniel A., Klaus Deininger, and Markus Goldstein (2011) *Environmental and Gender Impacts of Land Tenure Regularization in Africa: Pilot evidence from Rwanda*. Policy Research Working Paper 5765 The World Bank Development Research Group, Agriculture and Rural Development Team, & Africa Region Gender Team. August 2011

NOTES: Although increased global demand for land has led to renewed interest in African land tenure, few models to address these issues quickly and at the required scale have been identified or evaluated. The case of Rwanda's nationwide and relatively low-cost land tenure regularization program is thus of great interest. This paper evaluates the short-term impact (some 2.5 years after completion) of the pilots undertaken to fine-tune the approach using a geographic discontinuity design with spatial fixed effects. Three key findings emerge from the analysis. First, the program improved land access for legally married women (about 76 percent of married couples) and prompted better recordation of inheritance rights without gender bias. Second, the analysis finds a very large impact on investment and maintenance of soil conservation measures. This effect was particularly pronounced for female headed households, suggesting that this group had suffered from high levels of tenure insecurity, which the program managed to reduce. Third, land market activity declined, allowing rejection of the hypothesis that the program caused a wave of distress sales or widespread landlessness by vulnerable people. Implications for program design and policy are discussed.

Ansoms, An and Nathalie Holvoet (2008) *Women and Land Arrangements in Rwanda: A Gender-Based Analysis of Access to Natural Resources*. Chapter 7 in, Women's Land Rights & Privatization in Eastern Africa. Englert, B. and Daley, E., eds. Boydell & Brewer Inc: Rochester, NY, USA
NOTES: This chapter analyzes Rwanda's 2005 land policy law using a gender-sensitive framework, and includes a review of the impact of historical legislation as it influences women's inheritance and land rights leading up to 2005.

Fischer, Elisabeth and Qaim, Matin. (2012) *Gender, Agricultural Commercialization, and Collective Action in Kenya*. Food Security. 4:441–453.

ABSTRACT: With the commercialization of agriculture, women are increasingly disadvantaged because of persistent gender disparities in access to productive resources. Farmer collective action that intends to improve smallholder access to markets and technology could potentially accelerate this trend. Here, we use survey data of small-scale banana producers in Kenya to investigate the gender implications of recently established farmer groups. Traditionally, banana has been a women's crop in Kenya. Our results confirm that the groups contribute to increasing male control over banana. We also analyze nutritional implications. While male control over banana revenues does not affect household calorie consumption, it has a negative marginal effect on dietary quality. We demonstrate that the negative gender implications of farmer groups can be avoided when women are group members themselves. In the poorest income segments, group membership even seems to have a positive effect on female-controlled income share. Some policy implications towards gender mainstreaming of farmer collective action are discussed.

Holvoet, Nathalie and Liesbeth Inberg (2012) *Integration of a gender dimension in the EC Sector Budget Support for Decentralised Agriculture in Rwanda*. Financing for Gender Equality and Women's Empowerment (ILO/ITC). Institute of Development Policy and Management: University of Antwerp.

NOTES: This paper elaborates a gender mainstreaming strategy for the EC's budget support to the Rwandan agricultural sector. The gender mainstreaming strategy starts from the analysis of the current degree of gender mainstreaming of the EC's agricultural budget support in Rwanda. The gender review (section three) demonstrates that thus far gender is largely absent from the various instruments and tools that the EC is using in the context of (sector) budget support to influence the agricultural policies and systems. The gender mainstreaming strategy which is elaborated to redress the current situation draws upon a combination of documentary review and interviews with key (gender and non-gender) stakeholders from various settings (government, donors, CSOs).

Kaudia, Alice A. and Obonyo, Emily (2007) *Gender mainstreaming in forestry in Africa: Kenya.* Food and Agricultural Organization of the United Nations (FAO): Rome, Italy.

ABSTRACT: This study examined the extent to which gender has been mainstreamed into forestry programs at institutional and community levels as well as in policies and legislations. Literature review and informal interviews at institutional and community level are the main methods used for the research. It was found that in Kenya, the government has made efforts to mainstream gender in development programs but these efforts are limited to statements of intent. There are no Action Plans to transform the policies to outcomes. The Forest Act (2005) does not have adequate provisions to support gender mainstreaming, and there is no basis for tracking progress on gender mainstreaming. There are very few women in Forest Service and even fewer

at high ranks in the service. Strategies should be developed to increase the number of women foresters and their positioning at decision-making and policy influencing levels.

Marra, S. (2008) *Bearing the Cost: An examination of the gendered impacts of water policy reform in Malawi*. Rural Society. 18(3): p.161

NOTES: Begins with a broad overview of water insecurity issues worldwide, with a focus on developing countries. It also recaps feminist theory and gender and development before leading into water management issues and a case study example of Malawi. The article attempts to point out that, in some cases, water insecurity or scarcity issues are not the result of lack of water but poor management and administration that does not adequately allow for sufficient access by all parties. The Malawi case study addresses how water reform policies (privatization and community-based management) are changing women's roles in managing water resources.

Mkenda-Mugittu, Vera F. (2003) *Measuring the Invisibles: Gender mainstreaming and monitoring experience from a dairy development project in Tanzania*. Development in Practice, Volume 13, Number 5, November.

ABSTRACT: Development projects are under pressure to deliver positive gender changes. This paper provides a practical example of how one project in Tanzania attempted to meet this demand. It details how a conventional technical project developed its own understanding of what it is to be gender sensitive, and identified gender concerns that it might address. The main monitoring challenges became those of how to assess the significance of routinely recorded events such as increased cow allocations to women, and how to incorporate monitoring activities that might focus on researching less obvious, less visible, and more subtle processes of change into the project cycle. The paper advocates giving greater attention to meeting these challenges within projects.

Nyinawumuntu, Yvette (2012) *Has Profitability challenged Patriarchy? Microfinance Programme and Gender Relations within the Household in Rwanda*. M.A. thesis in International Development, The Hague: The Netherlands.

NOTES: Microfinance Programmes in Rwanda have been supported and encouraged by the government and NGOs largely as a tool for poverty alleviation and women's empowerment, on the assumption that economic empowerment would lead to more equitable gender relations both within the community and the household. The study explores the tensions that women experience in negotiating between the demands on the one hand of profitability of their enterprise and on the other hand of patriarchal relations in the community and household, analysing whether and how economic empowerment has also resulted into more gender equitable relations within the household. The study finds that MFIs have played an important role in improving family income and helping women to meet practical gender needs. This contributed to improving quality of life in the household as well as to increasing women's self-confidence and self-reliance. However, the empirical evidence shows that because of unchanged patriarchal relationships rooted in

Rwandan socio-cultural norms and the unresolved gender division of labour within the household , women's participation in income-earning activities using loans has contributed to an increased workload for them. This study therefore argues that mere financial support offered to women by Microfinance Institutions is insufficient in changing the existing structural gender inequalities and gendered power relations within the household as well as leading to women's empowerment and gender equity and equality.

Riley, P. J. (1995) *Gender Issues and the Training of Agricultural Extensionists in Malawi*. Agriculture and Human Values. 12(1): 31–38.

ABSTRACT: African women farmers have an urgent need for adequate agricultural extension information. Training extension agents in gender related issues should have high priority, considering that the majority of farmers are women and have different roles, resources, constraints, and responsibilities from men. This paper examines the extent to which these issues are incorporated into the curriculum of the two Malawian institutions of agricultural education that train extensionists. It also considers the degree to which they are recruiting women officers into fields other than home economics. Administrators and lecturers at both institutions express a desire to integrate gender matters into the curriculum and to recruit more females into agricultural extension; yet both fall far short in meeting these goals. The conclusion provides recommendations on how African institutions of higher learning that train extension personnel might better accomplish these goals and suggests that African MOAs need to employ more women in agricultural research, extension, training, and policy-making positions.

Module Code: _____ Faculty: Agriculture_
Module Title: Research Techniques
Level: 6 Semester: 2 Credits:____10
First year of presentation: 2013 Administering Faculty: Agriculture
: Pre-requisite or co-requisite modules, excluded combinations
Candidate should have studied and passed mathematics and statistics

Allocation of study and teaching hours See Notes of Guidance

Total student hours __100_____	Student hours	
Lectures	30	
Seminars/workshops	20	
Practical classes/laboratory	20	
Structured exercises		
Set reading etc.		
Self-directed study		
Assignments – preparation and writing	20	
Examination – revision and attendance	10	
Total	100	

Brief description of aims and content (not more than five lines)

This course prepares the student to select a research topic, define research questions and write a research proposal in preparation for graduation requirements. Practical advice on problem identification will help the student structure the research plan for a timely completion of the thesis requirement.

Citizens of a country are made up of men and women, meaning that there is no gender neutral citizen. As such, research should always take into consideration the gendered dimension so that it does not overlook important aspects of the research subject, miss the opportunity to identify structural inequalities, and thus contribute to continuation of their being reproduced. It is of utmost importance that sex and gender disaggregated statistics are collected and published, so that the knowledge base on sex- and gender-relevant issues is enhanced, and gender inequities can be identified and addressed.

A systematic gender sensitive approach allows publication and dissemination of findings focusing on a gender view. It is important to use gender sensitive language. Women's voices go unnoticed and description of realities get distorted when "man" is used to represent representing men and women, or "head of household" is used as representative of the household. This module will prepare learners to systematically apply gender sensitive and gender analytic approaches in thesis research, reporting of findings and publications.

Language (word choice, metaphors, analogies, and naming practices chosen to explain scientific concepts) and visual representations (images, tables, and graphs chosen to illustrate scientific concepts) have the power to shape scientific practice, the questions asked, the results obtained, and the interpretations made. Learners will be equipped to rethink language and visual representation in documents (research proposals, theses and publications) to remove unconscious gender assumptions that restrict discovery and innovation, and thereby reduce gender inequalities.

Instead of relying only on experts in gender analysis joining a research team, the current generation of researchers needs to learn how to exploit the creative power of sex and gender analysis in their research design.

Learning Outcomes (List no more than 5 per category)

Knowledge and Understanding

Having successfully completed the module, students should be able to demonstrate knowledge and understanding, with gender sensitivity, of:
the basis of scientific research
the sources of research ideas and research problems, problem identification and hypothesis formation relating to the research question
Conducting a literature search on a given topic, ethics in research
Research approaches and methods of data collection
the research variables measurement, sampling techniques and research validity
Quantitative, qualitative and mixed Methods Research
using descriptive and inferential statistics in research
Writing a professional, informative and accurate research report.

Cognitive/Intellectual skills/Application of Knowledge

Having successfully completed the module, students should be able, in a gender perspective, to:
Explain what knowledge is and how it is obtained
Describe and explain the characteristics of the scientific research
Explain how to specify a research problem and how to formulate a hypothesis relating to the research question
Describe the different types of variables used in research and their measurement
Describe and explain the threats to construct validity research
Describe the sampling methods and explain how to select a survey sample, discuss survey data collection methods, describe how to prepare survey data for analysis
Compare and contrast quantitative, qualitative, and mixed research methods
Explain the ethical issues faced by researchers when designing and conducting research
Explain the descriptive and inferential statistics use in data analysis and presentation

Describe how to present research results at professional conferences and other oral results presentations.
Communication/ICT/Numeracy/Analytic Techniques/Practical Skills

Having successfully completed the module, students should be able, with a gender sensitive and responsive approach, to:
identify and define scientifically a research problem
apply data collection techniques for data collection
use quantitative, qualitative and mixed research methods
take into consideration the ethical issues in a research
use descriptive and inferential statistics in data analysis and presentation
write and present professionally a research report

General transferable skills
Having successfully completed the module, students should be able, with a gender lens, to:
explain knowledge and the sources of research ideas and research problems
explain quantitative, qualitative and mixed research methods for conducting research
Explain how to write and present professionally a research report

Indicative Content

Introduction to scientific research
Introduction to gender sensitivity in research
Research approaches and methods of data collection
Sex and Gender Analysis in Research Design
Planning the research study (problem identification and hypothesis formation; ethics, sex and gender analysis)
Foundations of research (measuring variables with gender sensitivity and gender sensitive sampling, research validity)
Exploratory and descriptive gender sensitive methods (survey research, qualitative and mixed methods research)
Analysing and interpreting data gender sensitively (descriptive and inferential statistics)
Writing the research report in a gender perspective.

Learning and Teaching Strategy

Exposé with PowerPoint presentations with emphasis on interactions between students and lecturer
Readings given to student
Providing exercises permitting students to materialize theoretical aspects of the module
Seminar where students will have to present their research proposals and other paper related to research proposal (literature review for example)

Assessment strategy

Homework
Paper (written and presented in student seminar)
Written exam

Assessment Pattern

Component	Weighting (%)	Learning objectives covered
In-course assessment:	60%	The basis of scientific research the sources of research ideas and research problems, problem identification and hypothesis formation relating to the research question Conducting a literature search on a given topic, ethics in research Research approaches and methods of data collection the research variables measurement, sampling techniques and research validity Quantitative, qualitative and mixed methods research using descriptive and inferential statistics in research Writing a professional, informative and accurate research report
Final assessment	40%	the sources of research ideas and research problems, problem identification and hypothesis formation relating to the research question research approaches and methods of data collection using descriptive and inferential statistics in research

Strategy for feedback and student support during module

Appointment with lecturer
Fixed hours(office hours) for lecturer to receive students having issues on course
Using emails and written paper(hard copies)

Indicative Resources

Core Text (include number in library or URL) (inc ISBN)
Research Methods, Design, and Analysis, ISBN-10: 0205701655 • ISBN-13: 9780205701650, http://www.Pearsoncustomlibrary.com/ISBN/0205701655

Background Texts (include number in library or URL) (inc ISBN)

Social Research Methods, ISBN-10: 0139554289 • ISBN-13: 9780139554285,
http://www.Pearsoncustomlibrary.com/ISBN/0205471536

Real Research: Conducting and Evaluating Research in the Social Sciences,ISBN-10: 0205416624 • ISBN-13: 9780205416622,
http://www.Pearsoncustomlibrary.com/ISBN/0205416624

Research Methods for Business Students, ISBN-10: 0273716867 • ISBN-13: 9780273716860
http://www.pearsonhighered.com/pearsonhigheredus/educator/search/hipSearchResults.page?isbnFlag=false

Writing, reading and research, Bar code 10-99-08983 ; 10-99-08984 ; 10-99-08985 ; 10-99-08986 ; 10-99-08987 ; 10-99-08988 ; 10-99-08989 ; 10-99-08990 ; 10-99-08991 ; 10-99-08992 ; 10-98-04695 ; 10-98-04696 ; 10-98-04697 ; 10-98-04698 ; 10-98-04699 ;
http://41.222.244.30/lib/HitList.aspx?s=10_1

Case study research: design and methods
Bar code 10-11-00903
http://41.222.244.30/lib/HitList.aspx?s=11_1

Title Guide to the successful thesis and dissertation: a handbook for student and faculty
Bar code 10-11-00307
http://41.222.244.30/lib/HitList.aspx?s=13_1

Research methodology in applied economics; organizing, planning, and conducting economic research
Bar code 40-13-0024
http://41.222.244.30/lib/HitList.aspx?s=14_1

Journals

Journal of Mixed Methods Research
http://mmr.sagepub.com/content/early/recent
Journal of Research Methods and Methodological issues
http://www.scientificjournals.org/journals2009/j_of_research_methods1_2009.htm
International Journal of Social Research Methodology (Int J Soc Res Meth)
http://www.researchgate.net/journal/1364-5579_International_Journal_of_Social_Research_Methodology

Key websites and on-line resources

http://41.222.244.30/lib/HitList.aspx?s=9_1

http://www.pearsonhighered.com/pearsonhigheredus/educator/search/hipSearchResults.page?isbnFlag=false

Teaching/Technical Assistance
Internet access

Laboratory space and equipment
Class room with chairs and tables

Computer requirements
LCD projector

Others literature on gender
Please add anything else you think is important

Module Code: _____ Faculty: Agriculture_
Module Title: Agriculture Research Methodology
Level: 6 Semester: 2 Credits:____10
First year of presentation: 2013 Administering Faculty: Agriculture
: Pre-requisite or co-requisite modules, excluded combinations
Candidate should have studied and passed mathematics and statistics

Allocation of study and teaching hours

Total learner hours __100_____	Learner hours
Lectures	30
Seminars/workshops	0
Practical classes/laboratory	20
Structured exercises	10
Set reading etc.	10
Self-directed study	10
Assignments – preparation and writing	10
Examination – revision and attendance	10
Other:	0

Brief description of aims and content

This course focuses on survey design and data collection techniques to collect primary data for agricultural research projects. Strong focus on statistically representative sampling frames will be placed and on how to deal typical problems in sampling biases. Learners will also practice data cleaning techniques using examples with secondary data. This course will contribute to strengthen the student's ability to complete the thesis requirement.

Relevant gender issues in research in the sectors of agriculture, forestry, aquaculture, fishing and Agribusiness are of two categories: (i) Equal opportunities for women and men in research and (ii) Gender in research content. A balance between socio-economic goals and responsible natural resources management is vital for the sustainability and security of these sectors. In Rwandan societies men's and women's roles, and access to and control over resources in are differentiated. Also the potential effects of certain products and processes on men's and women's body functions are different due to their biological (sex) differences. Therefore, gender and sex should be taken into account at each step of the research to guarantee exhaustive outcomes. A gender and sex sensitive approach will ensure the research project is not gender-blind and it is not discriminating in favour of one sex over the other. Research projects should be analysed from a gender and sex perspective to identify its impact on women and men, and reveal potential gender biases.

When constructing models to study effects of a product or process in these sectors, it is necessary to take into consideration gender and sex related differences on the impact on men and women and on body functions. Researchers should take a gender perspective on the broad gender implication of decisions on the basis of their findings. Researchers should collect information on how processes and products impact differently on women's and men's access to the use and control of land, resources and their respective roles in collecting, producing, distributing and consuming these resources and derived products. Researchers should ensure that men and women are equally represented within groups of research subjects and to ensure that their respective needs and interests are taken into account. Also, research teams should be gender balanced in terms of numbers in all categories. Furthermore, integrating sex and gender analysis into research sparks creativity by offering new perspectives, posing new questions, and opening new areas to research.

This module will equip learners with knowledge and skills to identify broad relevance of gender within the sectors; identify gender-relevant issues which may be taken up by research teams and they should be able to advice on how planned research in these sectors can be made gender-sensitive in terms of equal opportunities and in terms of the content of the work.

Learning Outcomes

Knowledge and Understanding

At the conclusion of the course the student will be able to understand the proper application of various experimental and be capable of analysing various types of agriculture data from a gender perspective.

Cognitive/Intellectual skills/Application of Knowledge

Each student will develop skills necessary to be actively involved in the research process and will develop skills in statistics and gender analysis

Communication/ICT/Numeracy/Analytic Techniques/Practical Skills

Having successfully completed the module, learners should be able to:
Apply gender sensitive data sampling methods for data collection in agriculture
Use quantitative, qualitative and mixed research methods in agriculture with a gender lens
Use sex and gender disaggregated descriptive and inferential statistics in data analysis and presentation

General transferable skills

Having successfully completed the module, learners should be able, gender responsively, to:
Explain knowledge and the sources of research ideas and research problems in agriculture
Explain quantitative, qualitative and mixed research methods for conducting research in agriculture
Explain how to analyse and present statistically gender and sex sensitive agriculture data
Write research reports whose language is gender sensitive

Indicative Content

Introduction to planning and execution of agricultural experiments;
Principles of scientific experimentation;
Statistical methods commonly used in agricultural research;
Descriptive statistics; Normal 't' and 'F' distributions and their uses.
Experimental designs, analysis of variance, chi-square tests, simple correlation and regression.
Factorial experiments; Introduction to multiple regression and non-parametric statistics;
Emphasis will be on applications of these methods rather than on mathematical derivations.

Learning and Teaching Strategy

The content delivery relies on class work and applications with statistical software's (SPSS, STATA) based on concept reviews and practical exercises.

Assessment Pattern

Work	Mark
Assignments	40%
Examination	60%
Total	100%

Strategy for feedback and student support during module

Learners will be allocated consultation time for any clarification needed.

Indicative Resources

Core Text

Title	Statistical Methods in Agriculture
Author	Frank Whittaker Gist
Publisher	Brown Printing Company, 1923
Original from	the University of California

Background Texts
Title
Statistical methods applied to experiments in agriculture and biology.
Authors
SNEDECOR, G. W.
Book
Statistical methods applied to experiments in agriculture and biology.
Record Number: 19391601748

Module Code: _____ Faculty: Agriculture
Module Title: Agribusiness
Level: 6 Semester: 2 Credits: ____15
First year of presentation: 2013 Administering Faculty: Agriculture
: Pre-requisite or co-requisite modules, excluded combinations

Allocation of study and teaching hours See Notes of Guidance

Total student hours _____150_____	Student hours
Lectures	45
Seminars/workshops	30
Practical classes/laboratory	20
Structured exercises	10
Set reading etc.	10
Self-directed study	10
Assignments – preparation and writing	15
Examination – revision and attendance	10
Other:	
Total	150

Brief description of aims and content

This course introduces the subject of agribusiness as the set of activities and decisions from input sourcing at the farm to end-consumer satisfaction at the table. Strong emphasis is placed on economics governing these decisions as well as the different investment and risk management considerations made by agribusiness actors in domestic, regional and global markets.

In Rwanda like many sub-Saharan Africa countries, farming is based on gender lines, where women are likely to be involved in family small scale subsistence mixed livestock grazing, mixed crops, horticulture and poultry. Men are likely to own farmland and engage in large scale livestock and commercial farming of food (cereals, oilseeds, etc.) and non-food (e.g. flowers) products. Men are more likely than women to register economic growth (or graduate from one poverty level to another) based on agriculture. To create equal opportunity in economic growth to both men and women, decision makers and technicians need knowledge on how processes of increasing commercialization and economic growth impact differently on women's and men's access to the use and control of resources and land as well as their respective roles in collecting, producing, distributing and consuming these resources and derived products. This module will equip learners with knowledge and skills to develop efficient and appropriate communication tools disseminating information to various stakeholders taking into account gender differences. Consumer debate on new varieties and technologies and their risks should be communicated in a gendered way to expose different needs and perspectives into account. Information to consumers

should pay attention to the gender differences associated with traditional taboos on food and nutrition consumed by men and women (and children).

Learning Outcomes

Knowledge and Understanding
Having successfully completed the module, learners should be able to demonstrate knowledge and understanding, with a gender perspective, of:
Agribusiness terminology in the global economy
The role of national and international institutions in agribusiness
National and regional policies (including gender responsive policies) in support of agribusiness expansion
The market structure of the major agribusiness subsectors in Rwanda and the East African Community
Challenges to agribusiness of all scales in Rwanda and the East African Community
gendering market structures of agribusiness subsectors

Cognitive/Intellectual skills/Application of Knowledge
Having successfully completed the module, learners should be able, in a gender perspective, to:
Understand the global forces shaping the present and future of agribusiness in Rwanda
Acquire a working knowledge of supply-side and demand-side oriented agribusiness operations
Analyze the incentives to foreign companies to invest in Rwanda and the East African Region

Communication/ICT/Numeracy/Analytic Techniques/Practical Skills
Having successfully completed the module, learners should be able to:
Identify sources of updated information on agribusiness development
Relate to and analyze (in a gender perspective) complex topics in agribusiness management, marketing and finance
Become familiar with a body of literature on agribusiness globally, including literature on gender issues in agribusiness.

General transferable skills
Having successfully completed the module, learners should be able to:
Compare and contrast agribusiness development schemes in Africa and around the world
Be able to explain to academic and lay audiences the structure of the food and non-food agribusiness sector in
Transfer this knowledge to the field when analyzing alternatives for agribusiness growth in Rwanda and the East African Region
be able to do gender analysis of the agribusiness sectors and plan interventions to reduce the gender gaps

Indicative Content

Introduction: Overview of the agribusiness sector
Agribusiness and economic theory
Economic principles
Economic market structures
Market concentration
The role of capital in agribusiness expansion
Development of the agribusiness sector in Rwanda
Development of the agribusiness sector the African continent
Case studies in agribusiness
Gender issues in Agribusiness

Learning and Teaching Strategy

This class is focused on exposing the student to the literature on agribusiness worldwide, with specific emphasis to the country and the East African Region and the African continent. Learners will be challenged with reading and comprehension quizzes on academic papers related to each indicative content area. As a foundations course, learners will be provided with access to journals where seminal research as well as case study research will improve their understanding of this dynamic sector.

Assessment Strategy

Quizzes, short essays and group case study discussions will be graded.

Assessment Pattern

Component	Weighting (%)
In-course assessment:	
Off-class reading assignment quizzes	50
Class participation in discussions and debates	20
Group exercise assignments	20
Final assessment:	100

Indicative Resources

Core and background texts

Research and Markets: South Africa Agribusiness Report Q4 2010. Anonymous. Business Wire New York 02 Sep 2010.

Steven Haggblade, (2011) "Modernizing African agribusiness: reflections for the future", Journal of Agribusiness in Developing and Emerging Economies, Vol. 1 Iss: 1, pp.10 – 3

NEPAD (2005), Agribusiness, Supply Chain, and Quality Control Initiative: CAADP Implementation Concept Note, New Partnership for Africa's Development, Midrand
UNIDO (2010), Agribusiness for Africa's Prosperity, United Nations Industrial Development Organization, Vienna.

Sartorius, Kurt, and Johann Kirsten. 2007. A framework to facilitate institutional arrangements for smallholder supply in developing countries: An agribusiness perspective. *Food Policy* 32, (5-6):640-655, http://ezproxy.msu.edu/login?url=http://search.proquest.com/docview/56626853?accountid=12598 (accessed May 14, 2013).

2007 international conference on agribusiness and food industry in developing countries: Opportunities and challenges (ICABFI 2007). 2007. *2007 International Conference on Agribusiness and Food Industry in Developing Countries: Opportunities and Challenges (ICABFI 2007)* (-08-10), http://ezproxy.msu.edu/login?url=http://search.proquest.com/docview/41657343?accountid=12598 (accessed May 14, 2013).

Module Code: _____ Faculty: Agriculture
Module Title: Farm Management and Agriculture Finance
Level: 6 Semester: 2 Credits: ____15
First year of presentation: 2013 Administering Faculty: Agriculture
: Pre-requisite or co-requisite modules, excluded combinations

Allocation of study and teaching hours

Total student hours _____150_____	Student hours
Lectures	45
Seminars/workshops	30
Practical classes/laboratory	20
Structured exercises	10
Set reading etc.	10
Self-directed study	10
Assignments – preparation and writing	15
Examination – revision and attendance	10
Other:	
Total	150

Brief description of aims and content

This course will prepare the student for the everyday tasks involved in operations management and finance from basic raw material production to processing with a gender lens. A first section introduces the student to operations and productivity concepts. Challenges to operations and finance for a broad scale of firms are discussed in a global context. Strategies to run, operate and finance the different functions of a firm in active value chains are discussed. Learners are offered rich contexts and applied examples to Rwanda with key exercises and problem sets that prepare them to understand and formulate solutions for operations and financial challenges in a variety of firm environments.

In Rwanda, farms and firms managed by women are by far much smaller in economic size than those managed by men. Women still work in family businesses and farms; they lack professional status and collateral to access large credits to start a business. Furthermore, in Rwanda, like any African society, men's and women's roles, and access to and control over resources in agriculture, are differentiated, thereby giving each gender a different level of power. The course will take a gender-sensitive approach to equip learners to unpack gender-blindness and reveal potential gender biases in the course topics. Learners will be equipped with gender analytical tools for them to analyse gender differences and relations in productive processes, roles, responsibilities and ownership, and the impact of these on women and men. The course will strive to disentangle the cultural values which underpin the concept of sustainable development.

Learning Outcomes

Knowledge and Understanding
Having successfully completed the module, learners should be able to demonstrate knowledge and understanding, with a gender lens, of:
Understanding operations in agricultural production, processing and marketing
Procurement of financial support for different value chain functions from input sourcing to marketing
Basic issues, capabilities and limitations typical of agribusiness operations
Management of production- and processing oriented agribusiness firms
Management and finance applications of mainstream software (e.g., Excel)

Cognitive/Intellectual skills/Application of Knowledge
Having successfully completed the module, learners should be able to:
Enhance their skills to describe, explain and interpret solutions to typical and gender responsive management and finance issues in agriculture
Conceptualize, gender sensitively, specific farming and processing systems flowing along the value chain
Understand complex interrelated organizational structures necessary for effective agriculture production and processing operations with a gender dimension
Generate operations and gender disaggregated financial data to make informed decisions and recommendations to existing operations
Apply basic steps in drafting gender sensitive projects to request gender responsive financial support from banks and other financial institutions
Apply gender analytical tools to analyse management and finance issues in agriculture, operations, projects and budgets for gender sensitivity and gender responsiveness.

Communication/ICT/Numeracy/Analytic Techniques/Practical Skills
Having successfully completed the module, learners should be able to, gender responsively:
Engage with existing agribusiness firms in identifying operations and financial challenges
Build conceptual frameworks around firm operations and finance challenges to be addressed through applied research
Understand operations, supply chain and finance theory
Apply newly-acquired analytical skills to address every-day problems faced by Rwandan agribusiness
Develop working knowledge of computer business applications (E.g., Excel)
General transferable skills
Having successfully completed the module, learners should be able to, gender sensitively:
Understand complex agribusiness operations and financial statements
Analyse supply chain challenges in production and processing operations
Develop business plans and financial projections to request loans
Master project presentation skills

Develop comprehensive operations and financial written assessments

Indicative Content

Introduction to production management
Introduction to agriculture finance
Quality management and statistical process control
Installed capacity and facilities
Supply chain logistics
Sales and operations management
Inventory management
Forecasting and scheduling
Budgets and financial statements
Financing agriculture operations
Gender analytical framework in Agriculture

Learning and Teaching Strategy

A practice-oriented course requires active student engagement during lectures, group assignments and discussions. Case studies will be used as the major teaching tools for which a problem set will be provided. The student is required to work in group and individual assignments.

Assessment Strategy

All course activities are graded by indicative content area. Group and individual assignments are designed to help the student gain knowledge and skills that will be put to test through quizzes and written assignments. The quality of the responses during discussions and written assignments will be taken as a direct indication of the student's dedication to reading assignments out of classroom time. Problem solving using excel will be weighted the maximum points.

Assessment Pattern

Component	Weighting (%)
In-course assessment:	
Class participation in discussions and debates	20
Quizzes	20
Excel assignments	40
Class project writing and presentation	20
Final assessment:	100

Strategy for feedback and student support during module

Learners will be graded based on answer keys developed for all assignments. Examples of how responses must be submitted will be provided ahead of every assignment. Learners will be encouraged to turn in professional-looking assignments.

Indicative Resources
Core Text
Heyzer, J. Render, B. 2007. Operations Management. Prentice Hall, 9th Edition. ISBN-10: 0132342715; ISBN-13: 978-0132342711.

Computer requirements

The following will be required to succeed in this course:
Access to internet to download papers and additional resources and to communicate with the instructor(s).
Microsoft Word
Microsoft Excel
Microsoft Power Point

Module Code: _____ Faculty: Agriculture
Module Title: Strategic Management in Agribusiness
Level: 6 Semester: 3 Credits: ____15
First year of presentation: 2013 Administering Faculty: Agriculture
: Pre-requisite or co-requisite modules, excluded combinations

Allocation of study and teaching hours

Total student hours _____100_____	Student hours
Lectures	30
Seminars/workshops	20
Practical classes/laboratory	10
Structured exercises	10
Set reading etc.	5
Self-directed study	10
Assignments – preparation and writing	5
Examination – revision and attendance	10
Other:	
Total	100

Brief description of aims and content

This course will establish a clear distinction between strategic management and operations management in agribusiness. The content of this course is geared towards the need for the firm to recognize the complexity of external factors that favour or hinder its competitive position. The process of achieving a deep understanding of the business enabling environment will be studied and how that leads firms to make strategic decisions concerning personnel, acquisitions and technological adoptions.

Agribusiness around the world have grown with considerable support from the female labour force from the basic production activities to sales and marketing activities. It is therefore important to ensure that men and women are equally represented in firm's operations and to ensure that their respective needs and interests such as strategies, technologies, risks and work environment are taken into account. To make strategic decisions concerning personnel, acquisitions and technological adoptions, firms need to consider their own cultural values related to work. A firm should ensure equal opportunities for all its personnel, by providing sustainable working conditions for all and accounting for women's special needs, particularly when pregnant or rearing children of very young age.

Research has shown that, in well-managed firms, diversity in terms of sex, and age can enhance the quality of firms' productivity and growth. Diversity provides opportunity to exploit a wide range of life experiences and perspectives especially in the agribusiness firms, women's as well

as men's experiences are equally important. Although the tradition is that far fewer women are employed in Agribusiness firms especially in important positions, women are generally responsible for preparation of family's food and they play an important driving force when it comes to converting to innovations in farming and adaptation of new farming methods, new seeds etc. Their life experiences would contribute immensely to the growth and competitiveness of the company.

This course will provide learners with tools based on economic theory to assess the external and internal factors affecting the competitiveness of the firm and how to carry out business-level strategic planning taking on board the gender dimension in agribusiness.

Learning outcomes

Knowledge and Understanding
Having successfully completed the module, learners should be able to demonstrate knowledge and understanding of:
Economic and business theory with a gender perspective
Agribusiness firm behaviour in a cross-cultural and gender friendly environment
Challenges and opportunities for gendered agribusiness firms in domestic and regional emerging markets.

Skills to direct, engage and conduct gender responsive strategic planning in agribusiness firms
Government and NGO-led efforts to facilitate private sector gender responsive investments in agribusiness

Cognitive/Intellectual skills/Application of Knowledge
Having successfully completed the module, learners should be able to:
Become familiar with the latest academic and industry-led research defining strategic management for firms working in complex and competitive environments.
Develop analytical skills to discern between winners and losers in a market-led agribusiness environment

Assess and understand the classic economic constraints for agribusiness growth and specific cases applied to Rwanda and the East African Region.
Discuss and explain with business theory and examples transaction costs economics in agribusiness

Engage in short-term and long-term assessments of value chains in Rwanda and present results in an academic environment as well as to lay audiences in the entrepreneurial world.
Integrate gender in strategic management for firms working in complex and competitive environment

Communication/ICT/Numeracy/Analytic Techniques/Practical Skills

Having successfully completed the module, learners should be able to:
Identify agribusiness opportunities based on quantitative data from secondary or primary sources.

Critique recent value chain studies on a variety of aspects from quality of data used to practicality to the target entrepreneurial/industry sector.
Understand supply chains and develop skills and apply methods to account for all logistics costs involved

Formulate and test hypothesis in different scenarios of data availability
Understand and analyze the impact of externalities on growth of the agribusiness firm in Rwanda.

Carry out gender and sex analysis of data and propose gendered scenarios in agribusiness planning

General transferable skills

Having successfully completed the module, learners should be able to, gender sensitively:
Exercise leadership in agribusiness planning with entrepreneurs of different scales
Plan and execute agribusiness case studies around value chain problems
Apply principles of strategic management in applied decision making at the firm level
Excel in making formal presentations of strategic management assessment results
Perform agribusiness strategic management assessments with use of economic theory to understand the behaviour of agribusiness firms and develop recommendations to enhance profits.

Indicative Content

Introduction: What is strategic management?
Competitive and comparative advantages (global and regional focus)
Agribusiness industry analysis: The external environment, the internal environment, cost leadership and client satisfaction via the value chain
Long-range and short-range strategic planning
Strategic Scenario Analysis and SWOC planning to achieve competitiveness
Understanding externalities: economic, technological, government and socio-political influences on the firm
A mini-lecture series covering strategic thinking, competitive advantage, vertical and horizontal integration, and firm horizon planning.
Real-world problems in agribusiness strategic management (applied to Rwanda or the East African Region)
Gender mainstreaming in agribusiness strategic planning

Learning and Teaching Strategy

This is a context-rich course which will imply the use of business case studies, group competitions and key lecture presentations. Through use of case studies learners will be exposed to a number of problem sets which will provide skills in identifying key business issues and problems.

Assessment Strategy

The course has an active learning component through case study research and problem solving. Therefore, attendance and class participation are highly prorated to assess the progress of the learners. Group case study presentation and qualification makes the bulk of the class note as results from case study reports are graded and compared against other groups' results. Debate over case study results will be highly encouraged to build the student's professional presentation skills. A final term-paper focusing on a real agribusiness problem in Rwanda will be required.

Assessment Pattern

Component	Weighting (%)
In-course assessment:	
Off-class reading assignments	20
Class participation in discussions and debates	20
Group exercise assignments	30
Final term-paper writing and presentation	30
Final assessment:	100

Strategy for feedback and student support during module

During the length of the module learners will be encouraged to stay in close contact with the instructor through virtual teaming tools and techniques (e.g., Skype, email, etc.).

Resources
Core Text
Beierlein, James G.; Schneeberger, K.C.; and Osburn D. (2007) Principles of Agribusiness Management. 4th Edition. ISBN-10: 1577665406. ISBN-13: 978-1577665403

Background Texts

Dayton-Johnson, Jeff; Fukasaku, Kiichiro. Policy Brief, suppl. 2008. Making the Most of Aid: Challenges for Africa's Agribusiness 36.

Bonaglia, F. and K. Fukasaku. 2002. Trading Competitively: Trade Capacity Building in Sub-Saharan Africa, Development Centre Studies, OECD, Paris.

Bonaglia, F. and K. Fukasaku. 2003. "Export Diversification in Low-Income Countries: an International Challenge after Doha", Development Centre Working Paper No. 209, OECD, Paris, June.

Chiwele, D. 2006. Aid for Trade and Agro-based Private Sector Development in Zambia, OECD Development Centre, Paris (available at http://www. oecd.org/dac/trade/doha2006/).

Jaffee, S. R. Kopicki, P. Labaste and I. Christie. 2003. Modernising Africa's AgroFood Systems: Analytical Framework and Implications for Operations, Africa Region Working Paper Series No. 44, World Bank, Washington, D.C.

Matsumoto-Izadifar, Y. 2007. Africa's Private Sector: Ready to Seize Business Opportunities? Policy Insight, No. 43, OECD Development Centre, Paris.

Nweke, Felix; Haggblade, Steven. 2010. The Cassava Transformation in West and Southern Africa. 2010. Published for the International Food Policy Research Institute. Baltimore: Johns Hopkins University Press.

Computer requirements

To succeed in this class the following will be required to succeed in this course:
Access to internet to download papers and additional resources and to communicate with the instructor(s).
Microsoft Word
Microsoft Excel
Microsoft Power Point

Module Code: _____ Faculty: Agriculture
Module Title: Agribusiness Value Chain Management
Level: 6 Semester: 3 Credits: ____15
First year of presentation: 2013 Administering Faculty: Agriculture
: Pre-requisite or co-requisite modules, excluded combinations

Allocation of study and teaching hours

Total student hours _____100_____	Student hours
Lectures	30
Seminars/workshops	20
Practical classes/laboratory	10
Structured exercises	10
Set reading etc.	5
Self-directed study	10
Assignments – preparation and writing	5
Examination – revision and attendance	10
Other:	
Total	100

Brief description of aims and content

The central theme of this course is the value chain as a pathway for agribusiness firms to understand and respond to consumer satisfaction. Learners will be presented with case studies from around the world where managing the value chain is the most important aspect of any business focused on improving its competitive position. Learners will learn that intricate interactions between all members of the chain are not always possible and they not always lead to expected outcomes. Learners will critique the value chain concept by evaluating different scenarios of value chain links upstream and downstream and will make recommendations for how to apply the value chain philosophy in the Rwandan context taking into consideration the gender dimension.

Learning Outcomes

Knowledge and Understanding
Having successfully completed the module, learners should be able to demonstrate knowledge and understanding of:
Key elements of the value chain approach
Value chains and Africa's development agenda
Analysing and evaluating value chains
Limitations of the value chain concept in agribusiness

Case studies in agribusiness value chain management
Gender dimension in the value chain approach

Cognitive/Intellectual skills/Application of Knowledge
Having successfully completed the module, learners should be able to:
Critique strengths and weaknesses of value chain and value chain benchmarking studies
Conduct basic value chain studies focused on costs and shifting value across actors
Understand and differentiate management challenges in the value chain
Determine different management intervention points along the value chain
Apply strategic thinking to value chain management challenges
Conduct value chain studies focused on gender issues

Communication/ICT/Numeracy/Analytic Techniques/Practical Skills
Having successfully completed the module, learners should be able to:
Understand issues of governance in the value chain and their relationship to management challenges
Understand gender dimension in the value chain and their relationship to management challenges
Interview agribusiness company representatives about their management challenges
Conduct research relevant to at least one agribusiness company in Rwanda
Present alternatives to one or more agribusiness firms on how to innovate the value chain management system in place, including gender integration, and make informed decisions
Develop a technical report addressing a value chain management bottleneck

General transferable skills
Having successfully completed the module, learners should be able to:
Exercise leadership in innovative thinking concerning gender responsive value chain management
Practice applicable analytical skills in the context of Africa's agricultural value chains
Adapt ideas on trends and competitive forces in value chain management to the national and regional contexts
Master methodological tools to develop gender sensitive value chain studies
Perform agribusiness value chain benchmarking gender sensitive assessments
9. Indicative Content
Introduction: basic issues, advantages and limitations of the value chain philosophy
Analysing the structure and dynamics of value chains
Developing strategies to overcome constraints and increase value chain competitiveness
Agriculture value chain management
Constraints to expanding rural value chains in Africa
Case studies in agribusiness value chain management
Gender inclusive value chain management

Learning and Teaching Strategy

This is a context-rich course which will imply the use of business case studies, group competitions and key lecture presentations. Through use of case studies learners will be exposed to a number of problem sets which will provide skills in identifying key business issues and problems.

Assessment Strategy

Off-class reading assignments will be tested through periodic quizzes throughout the course. Class participation is given important weight. Learners will be required to work in groups and present results in a variety of fashions (panel, lectures, case study writing, etc.). Group notes apply to all members of the group and bonus points will be awarded to the best group works. Only learners meeting expectations concerning class readings, group and individual assignments will pass the class. Instructor expectations will be clearly laid out in the syllabus of the course.

Assessment Pattern

Component	Weighting (%)
In-course assessment:	
Off-class reading assignments	20
Class participation in discussions and debates	20
Group exercise assignments	30
Final term-paper writing and presentation	30
Final assessment:	100

Strategy for feedback and student support during module

During the length of the module learners will be encouraged to stay in close contact with the instructor through virtual teaming tools and techniques (e.g., Skype, email, etc.).

Indicative Resources

Core Text
Kaplinsky, R. and Morris M. 2000. A Handbook for Value Chain Research. http://www.srp-guinee.org/download/valuechain-handbook.pdf

Background Texts
Key, N., and D. Runsten. 1999.”Contract farming, smallholders, and rural development in Latin America: The organization of agroprocessing firms and scale of
outgrower production.” World Development 27: 381-401.

Kirsten, J., and Sartorius, K. 2002. Linking agribusiness and small-scale farmers in developing countries: Is there a new role for contract farming? Development Southern Africa 19(4):503-529.

Kula, Olaf; J. Downing and M. Field. 2007. Globalization and the small firm: An industry value chain approach to economic growth and poverty reduction. Micro Report 42. USAID.

Okello, J.J., and S.M. Swinton. 2007. "Compliance with International Food Safety Standards in Kenya's Green Bean Industry: Comparison of a Small and a Large Scale Farm Producing for Export." Review of Agricultural Economics 29(2): 269-285.

Porter, M. 1985. Competitive Advantage. Creating and Sustaining Superior Performance. New York.

Smallbone, D., and F. Welter. 2001. The distinctiveness of entrepreneurship in transition economies. SmallBusiness Economics, 16(4), 249.

Sykuta, M.E. and Cook, M.L. 2001. A New Institutional Economics Approach to Contracts and Cooperatives. American Journal of Agricultural Economics, 83, N°5: 1273-1279.

Module Code: _____ Faculty: Agriculture
Module Title: Agribusiness Marketing
Level: 6 Semester: 3 Credits: ____10
First year of presentation: 2013 Administering Faculty: Agriculture
: Pre-requisite or co-requisite modules, excluded combinations

Allocation of study and teaching hours

Total student hours _____150_____	Student hours
Lectures	45
Seminars/workshops	30
Practical classes/laboratory	20
Structured exercises	10
Set reading etc.	10
Self-directed study	10
Assignments – preparation and writing	15
Examination – revision and attendance	10
Other:	
Total	150

Brief description of aims and content

This course is designed to introduce learners to agribusiness marketing in a modern context. Departing from consumer theory, consumer preferences will be juxtaposed with firm-level theory concerning marketing strategies. Gender perspectives in consumer preferences will be taken into consideration. This course has several subcomponents that will be interconnected as the course advances. The emphasis is placed on agribusiness marketing trends, partners in marketing along the supply chain, efficiencies of different classic and modern marketing approaches (e.g., the internet) and international marketing techniques. A section will include applied microeconomics demonstrating how decisions in marketing strategies affect firm performance.

This module will equip learners with knowledge and skills to develop efficient and appropriate communication tools disseminating information to various stakeholders taking into account gender differences when purchasing agricultural commodities and agriculture-related services. Consumer debate on new varieties and technologies and their risks should be communicated in a gendered way to expose different needs and perspectives into account. Information to consumers should pay attention to the gender differences associated with traditional taboos on food and nutrition consumed by men and women (and children). Additional considerations will be also taken when generating consumer information on tastes and preferences from the spectrum of women in different socioeconomic strata.

It is expected that a number of learners will address marketing issues in their internship locations; therefore, learners will be exposed to a broad body of marketing theory and analyses so they are able to identify and describe problems including the gender dimension as well as potential methodology choices to address them with gender sensitivity.

Learning Outcomes

Knowledge and Understanding
Having successfully completed the module, learners should be able to demonstrate knowledge and understanding of:
Agribusiness gender sensitive marketing terminology
The major marketing issues for firms of different scales operating in different links of the gender responsive value chain
Describing, taking into account the gender and sex differences, the market structure of major commodities in developed and emerging economies
Formulation of marketing strategies for agribusiness companies addressing the gender differences and striving to bridge the gender gaps

Cognitive/Intellectual skills/Application of Knowledge
Having successfully completed the module, learners should be able to, gender sensitively and responsively:
Provide practical applications for agribusiness marketing strategies
Learn measurements of risks of investments in agribusiness marketing
Understand different marketing techniques for raw materials and value-added products
Acquire a working knowledge of marketing techniques for inputs as well for services in agribusiness

Communication/ICT/Numeracy/Analytic Techniques/Practical Skills
Having successfully completed the module, learners should be able to:
Understand the different qualitative and quantitative components of marketing assessments with a gender lens
Assess the structure of gender responsive budgets for products and services in Excel
Learn from different case studies how cost build-up scenarios are modeled in preparation of marketing programs taking into consideration the gender dimension
Conduct hypothetical and real private sector interviews around the issues of marketing

General transferable skills
Having successfully completed the module, learners should be able to, gender sensitively:
Plan marketing assessments
Develop marketing budgets for products and services
Account for different cost build-up scenarios when introducing change to existing marketing programs
Work with existing companies to identify and diagnose marketing problems

Identify managerial challenges in companies to develop agribusiness marketing strategies

9. Indicative Content
Agribusiness marketing functions
Monopoly and oligopoly pricing
Processor pricing strategies
Retail pricing strategies
Price discrimination (in different formats to different consumer segments)
Agribusiness product differentiation (from commodities to specialties)
Issues with branding, packaging and labelling
Agribusiness companies limitations to investments in marketing
Critiquing agribusiness marketing programs (examples from around the world)
Gender dimension in agricultural economics and business

Learning and Teaching Strategy

This is a dynamic course that will entail readings, in-class studies, outside lecturers, field trips to wholesale and retail locations and a final class term paper.

Assessment Strategy

The class will rely on intensive reading outside of class in order to make lectures and class discussions more vividly. Learners will solve different questions to problem sets after case study reviews and be encouraged to compete for best group grades. A number of local agribusiness will be provided where student groups can plan and carry out interviews. A final class project will apply content learned in class to a real-life case study and be presented to the target company to gather feedback.

Assessment Pattern

Component	Weighting (%)
In-course assessment:	
Off-class reading assignments	20
Class participation in discussions and debates	20
Group exercise assignments	30
Final term-paper writing and presentation	30
Final assessment:	100

Strategy for feedback and student support during module

During the length of the module learners will be encouraged to stay in close contact with the instructor through virtual teaming tools and techniques (e.g., Skype, email, etc.).

Indicative Resources

Core Text
A text book on market and price analysis is being searched and case studies from Harvard Business School and other sources will be provided.

Computer requirements

To succeed in this class the following will be required:
Access to internet to download papers and additional resources and to communicate with the instructor(s).
Microsoft Word
Microsoft Excel
Microsoft Power Point

Module Code: _____ Faculty: Agriculture
Module Title: Internship Program
Level: 6 Semester: 3 Credits: 20
First year of presentation: 2013 Administering Faculty: Agriculture
: Pre-requisite or co-requisite modules, excluded combinations

Allocation of study and teaching hours

Total student hours 240	Student hours	
Lectures		
Seminars/workshops		
Practical classes/laboratory	230	
Structured exercises		
Set reading etc.		
Self-directed study		
Assignments – preparation and writing	10	
Examination – revision and attendance		
Other:		

Brief description of aims and content

The internship program is designed as a 12-week capstone course where the student will put in practice the knowledge acquired during the program's coursework. Graduating from this program involves exposing the student to applied decision making by identifying actual problems relevant to the company or institution where the internship will be developed. Students will be empowered to use agribusiness theory to understand the behavior and challenges of the hosting companies and institutions. Students are expected to contribute to their hosting institution by dedicating their thesis research to understand and address issues limiting the expansion, profit maximization or competitiveness of the firm.

Learning Outcomes (List no more than 5 per category)

Knowledge and Understanding

Having successfully completed the module, students should be able to demonstrate knowledge and understanding of the impact of potential solutions in global, economic, environmental, and cultural/societal contexts. Students are expected to consider the work assignments impact on global, economic, environmental, and cultural/societal contexts.

Cognitive/Intellectual skills/Application of Knowledge

Having successfully completed the module, students should be able to demonstrate Understanding of professional and ethical responsibility. Can clearly frame work task(s) and responsibilities and initiate resolution. Understands who to communicate with to most effectively engage the work task(s) (e.g. stakeholders: workers, administrators, etc.). Can identify related ethical considerations, such as health and safety, fair use of funds, and doing "what is right" for all involved.

Communication/ICT/Numeracy/Analytic Techniques/Practical Skills

Having successfully completed the module, students should be able to communicate effectively. Can work collaboratively and build on other's ideas to accomplish work responsibilities. Invites and encourages participation of all participants. This definition focuses on all forms: written, verbal, digital.

General transferable skills

Having successfully completed the module, students should be able to consider contemporary issues in their discussion and identification of possible approaches to the work assignment. The student will demonstrate the ability to use modern techniques, skills, and knowledge to address real world problems. The activities in this area depend on the nature of the experience, but could include the following: problem/system analysis, design/synthesis of a problem/system/process, testing methods, or implementation of a system (such as cost/benefit studies).

Indicative Content

The content focus of the Internship program will be individualized for each student and industry host. A key component of the success of this program is linking students' thesis to an agreed upon industry need. The internship will then become an opportunity to apply the thesis in a real-world context that meets real business needs for the mentor/host. Prior to beginning the internship, an agreement will be signed between the industry mentor, the student and the university in order to ensure that the content and focus of the internship meets the academic needs of the student as well as filling a valued need for the business.

Learning and Teaching Strategy

The internship program is designed to transition students from school to leadership positions in industry. It is necessarily applied and utilizes talent from the private sector in addition to the student's faculty mentor. Each student will have an internship supervisor identified with the agribusiness theory and industry associated to the student's internship program (e.g., dairy, horticulture, tea, coffee, etc.) where they are expected to make a contribution that fulfills a real-world business need.

Assessment Strategy

Because students will be spending most of their time with a mentor/supervisor outside of the university, it will be necessary for the Career Development Office at NUR to design an assessment rubric that will be manageable for the industry supervisor to complete. Expectations for all parties will be clear through a learning agreement that outlines student intentions and goals for the internship. The faculty supervisor will visit the internship site for a check in three weeks into the internship and for repeated visits if needed. The industry mentor will write an evaluation of the student's performance and the student will write a report on their experience. Student signs a learning agreement outlining their intention and goals for the internship.

Assessment Pattern

Component	Weighting (%)	Learning objectives covered
In-course assessment:		
Statement of intent		Communication
3 week check in		Assess all learning objectives
Experiential report		Assess all learning objectives
Final assessment:		
Supervisor assessment		Mentor survey – assess all learning objectives
Student survey		To assess the quality of the experience and the value of continuing to work with the industry partner

Strategy for feedback and student support during module

Statement of Intent

This Statement of Intent must be submitted and approved prior to the semester of the experience. The student will be dropped from the course if this paper is not completed before the internship start date.
It should demonstrate:
an understanding of professional and ethical responsibility;
an ability to communicate effectively;
the broad education necessary to understand the impact of agricultural, human, and natural resource solutions in global, economic, environmental, and societal contexts;
a knowledge of current issues;
an ability to use appropriate techniques, skills, and knowledge to address real world problems.

This statement should include your position title, the name of the organization, its main activities, its location, and its website, as well as your mentor's name, title, and contact information. This statement should not exceed 2 pages in length.
Week 3 check-in and update
By the end of week 3 of your experiential experience, submit a 1-2 page written report to your internship coordinator via email addressing the following for each of the six topic areas listed above:
What is working well as far as achieving this goal?
What is not working well?
What adjustments will I make to improve my ability to achieve this goal between now and the time my internship ends?

Final Report

The final report includes a summary and assessment of the internship experience. This report should describe the internship activities, and explain how the experience improved your skills, knowledge, and abilities in science or science-related areas. The report should be 3 - 4 pages in length and must be submitted by the student to your internship coordinator within 1 to 2 weeks upon completion of the experience.
Student submits a statement of intention that is signed by the student, faculty mentor and industry supervisor

Indicative Resources

Core Text (include number in library or URL) (inc ISBN)

Background Texts (include number in library or URL) (inc ISBN

Journals

Key websites and on-line resources

Teaching/Technical Assistance

Laboratory space and equipment

Computer requirements

Others

Internship Handbook

The coordinators of internship and career development will develop an internship handbook that will
Manage expectations for interns, NUR and industry partners
Include all forms, contracts and documentation needed to manage the program
Include a rubric for assessment that industry partners can easily use to rate the effectiveness of interns.
Include a checklist for students

Gender Considerations:

Family responsibilities often place geographic constraints on female students which may limit internship placement options. The female students who are already employed in key industries, their research and internship will be tied with their current employer. Alternatively, every effort will be made to place women students with industries/institutes close to their current residence.

During the beginning of academic year, the students will be advised on how to select place of internship, write letter of intent. Where, both men and women are employed by the same, employer, or select the same industry, the priority will be given to women.

Module Code: _____ Faculty: Agriculture
Module Title: M.Sc. research project
Level: 6 Semester: 4 Credits: 60
First year of presentation: 2013 Administering Faculty: Agriculture
: Pre-requisite or co-requisite modules, excluded combinations

Allocation of study and teaching hours

Total student hours 600	Student hours
Lectures/research	
Seminars/workshops	
Practical classes/laboratory/institution	
Structured exercises	
Set reading etc.	
Self-directed study	
Assignments – preparation and writing	
Examination – revision and attendance	
Other:	
Total	600

Brief description of aims and content

The thesis research is designed as a 15-weeks capstone research where the student will put in practice the knowledge acquired during the program's coursework. Graduating from this program involves exposing the student to applied research by identifying actual problems relevant to the company, institution or community where the research will be conducted. Learners will be empowered to use agribusiness theory to understand the behaviour and challenges of the hosting companies, institutions or community. Also learners will ensure gender inclusive content and gender balance in researchers and research subjects. Learners are expected to contribute to their hosting institution by dedicating their thesis research to understand and address issues limiting the expansion, profit maximization or competitiveness of the firm.

Learning Outcomes

Knowledge and Understanding
Having successfully completed the module, learners should be able to demonstrate knowledge and understanding of the impact of potential solutions in global, economic, environmental, and cultural/societal contexts. Learners are expected to consider the research work impact on global, economic, environmental, and cultural/societal contexts.

Cognitive/Intellectual skills/Application of Knowledge
Having successfully completed the module, learners should be able to demonstrate understanding of professional and ethical responsibility. Can clearly frame work task(s) and responsibilities and initiate resolution. Understands who to communicate with to most effectively engage the work task(s) (e.g. stakeholders: workers, administrators, etc.). Can identify related ethical considerations, such as health and safety, fair use of funds, and doing "what is right" for all involved.

Communication/ICT/Numeracy/Analytic Techniques/Practical Skills
Having successfully completed the module, learners should be able to communicate effectively. Can work collaboratively and build on other's ideas to accomplish work responsibilities. Invites and encourages participation of all participants. This definition focuses on all forms: written, verbal, digital.

General transferable skills
Having successfully completed the module, learners should be able to consider contemporary issues in their discussion and identification of possible approaches to the work assignment. The student will demonstrate the ability to use modern techniques, skills, and knowledge to address real world problems through research. The activities in this area depend on the nature of the research, but could include the following: problem/system analysis, design/synthesis of a problem/system/process, testing methods, or implementation of a system (such as cost/benefit studies).

Indicative Content

The content focus of the thesis research will be individualized for each student and industry/community/institution host. A key component of the success of this program is linking learners' thesis to an agreed upon industry need. The thesis will then become an opportunity to apply the research in a real-world context that meets real business needs for the host. Prior to beginning the research, an agreement will be signed between the industry, the student and the university in order to ensure that the content and focus of the research meets the academic needs of the student as well as filling a valued need for the business.

Learning and Teaching Strategy

The thesis research program is designed to transition learners from school to leadership positions in industry. It is necessarily applied and utilizes talent from the private sector in addition to the student's faculty skills. Each student will have a research supervisor identified with the agribusiness theory and industry associated to the student's research program (e.g., dairy, horticulture, tea, coffee, etc.) where they are expected to make a contribution that fulfills a real-world business need.

Assessment Strategy

Because learners will be spending most of their time with a supervisor in the field inside or outside of the university, it will be necessary for the student makes presentation of proposal for approval before starting research work, outlines student intentions and goals for the research and make at least one seminar on progress. The faculty supervisor will visit the field research site regularly starting first four weeks and for repeated visits if needed

Assessment Pattern

Component	Weighting (%)	Learning objectives covered
In-course assessment:		
Statement of intent		Communication
3 week check in		Assess all learning objectives
Experiential report		Assess all learning objectives
Final assessment:		
Supervisor assessment		Mentor survey – assess all learning objectives
Student survey		To assess the quality of the experience and the value of continuing to work with the industry partner

Strategy for feedback and student support during module

Statement of Intent
This Statement of Intent must be submitted and approved prior to the semester of the experience. The student will be dropped from the course if this paper is not completed before the research start date. It should demonstrate:
an understanding of professional and ethical responsibility;
an ability to communicate effectively;
the broad education necessary to understand the impact of agricultural, human, and natural resource solutions in global, economic, environmental, and societal contexts;
a knowledge of current issues;
an ability to use appropriate techniques, skills, and knowledge to address real world problems.
Ability to conduct research

This statement should include the name of site where to conduct research, organization/community/institution , its main activities, and its location This statement should not exceed 2 pages in length.

Week 4 check-in and update
By the end of week 4 of your research, submit a 1-2 page written report to your research to the supervisor via email addressing the following for each of the six topic areas listed above:
What is working well as far as achieving the research objectives/goal?

What is not working well?
What adjustments will I make to improve my ability to achieve this goal between now and the time my internship ends?

Final Report
The final report is a thesis according to University guideline. Special attention will be given on how gender is integrated (or not) in the organization and student assessment of the extent to which the organization is gender sensitive. The thesis should have pages as indicated in academic regulation of NUR, and must be submitted by the student to the program leader according to the established deadline.

4. UNIT APPROVAL

Deans and Heads of all Departments contributing to the programme to confirm agreement.

Department	Dean/Head of Department	Date
1.Dean	Signature Print Name: Dr Solange Uwituze	22/6/2013
2 HOD	Signature Print Name: Dr Ngabitsinze Jean Chrysostome	22/06/2013
3	Signature Print Name	
4	Signature Print Name	

Seen and agreed

Library	Signature Print Name	
ICT	Signature Print Name	
Quality Office	Signature	
	Print Name	

PROGRAMME SPECIFICATION FORM

1. PROGRAMME DETAILS

1 Programme Title	Master of science in Agribusiness			
2 Exit Awards	Postgraduate certificate (PgCert) Postgraduate Diploma (PgDip) Master of Science (M.Sc. AgBus.)			
3 Modes of Attendance *(please tick)*	Part-time	x	Full-time	x
	Distance Learning		Work-based Learning	
	Other (please specify)		Short course	
	1 Part-time (evening)			
	2 Part –time			
	3 Combined		Other (write in)	
4 Resource group: (See Notes of Guidance)	The teaching staff will include : UR staff, visiting from: (a)MSU&WSU) RUFORUM universities, CMAA			
5 First year of presentation	January 2014		It is the 1st M.Sc. agribusiness in Rwanda	

2. PROGRAMME FUNDING AND NEED FOR RESOURCES (changes since Programme Proposal Form)

Student numbers: Intake per year ___30__ into Level _6__
Eventual population, all years: _____

PROGRAMME AIMS AND RATIONALE (See Notes of Guidance)

Agriculture is the backbone of the economy in Rwanda, and it remains the main employer, especially of the poorer, smallholding farmers, and less educated segments of the population. The 2011 sensa estimations showed that the rural population relying on agriculture was79% of the total population, while the sector provides employment to 88% of the active population and contributes to 71% of export earnings. The role of agriculture in growth of the economy can be seen as having a number of aspects or dimensions. It goes beyond the fundamental one of food and fiber provision to the growing population and the complexity of contribution increases with economic growth. The contributions are made to the growth process by increasing production above subsistence level to facilitate the non farm economy growth, stimulating industries for both agricultural inputs and production processing, providing labor to other sectors, a resource of investment or government activity , and by providing increased income to the population. The recent literature recognized agriculture as an engine for growth and noted the special role of agricultural growth in poverty reduction through direct impacts on farm incomes and employment and indirect impact through growth linkages as well as its impact on food prices (Derek et.al, 2005). According the World Development Report (World Bank, 2008),. Agriculture contributes to development as an economic activity, as a livelihood, and as a provider of environment services and can be a main source of growth for the agriculture based countries through improving access to assets, income sources diversification, and facilitating migration out of agriculture.

The vision of Rwanda is to transform itself from subsistence agricultural to a knowledge-based economy by 2020 (Vision 2020). The achievement of this vision will require an intensification and market-orientation of agriculture on the one hand and a diversification of the economy through a proliferation of non-agricultural sectors on the other hand (World Bank, 2011). This also asks to change 50% of farms into modern type farms, to increase three times the soil productivity and to increase 4 to 5 times the work productivity (MINAGRI, 2005). There is a need for an empirical approach to apprehend the sources and determinants of agricultural growth, especially for smallholder farmers who constitute a large segment of the population, and for whom agriculture has been, for centuries, considered as the main source of household's income and a way to get out of poverty.

Masters of Science in Agribusiness is very relevant to the context of Rwanda, since it will play a key role in achieving objectives of Vision 2020. Agriculture is among the major sectors set to boost the development of the country.. The M.Sc. program in Agribusiness will provide professionals who can help to raise the quality, productivity and production of agriculture and strengthen its contribution to the development of Rwanda. Agribusiness has played a big role in the development of many countries hence there is no doubt that Agribusiness can also make a significant impact in Rwanda. It will have impact on Rwandan society since graduates will acquire the skills to use and make a significant impact on society".

The transformation of Agriculture sector to a knowledge-based economy require skilled persons in Applied Economics and Agriculture, the number of persons with advanced degrees in this field still very low in Rwanda, hence M.Sc. in agribusiness..Currently, there no single institution offering postgraduate program in agribusiness or agricultural economics. This is a great risk for

an agricultural based economy country where trade in agriculture in critical and planning is essential. Therefore, it is important to develop the M.Sc. in agribusiness as initial step for further postgraduate programs in related fields.

The program will offer two years gender sensitive training master of science in agribusiness to young men and women holding a Bachelor of Science Degree in Agricultural sciences, Economics and related fields. The training will cover courses of farm management and production economics, value chain management, natural resources and environment economics and related courses.

The teaching the program will be through collaborative effort. The program is being developed in collaboration with Michigan State University (MSU) and Washington State University (WSU) and RUFORUM Universities. The teaching of modules will be also done in collaboration. In country, we shall use local staff from

Running program and sharing module: How many taught by FACAGRI, NUR, Rwandan HEI, MSU, WSU, RUFORUM/ CMAAE etc.

Staff from FACAGRI/NUR will teach 6 modules, staff MSU will teach 6 modules, staff from RUFORUM/CMAA will teach 1 module.

External accreditation, external funding, and collaboration
The program is being developed in collaboration with Michigan State University (MSU) and Washington State University (WSU). The development of modules was jointly done by NUR, MSU, WSU and Regional staff from Bunda College of Agriculture, (RUFORUM and CMAA University member). Likewise, the teaching of modules will be shared under collaboration of the three Universities and network. The program will be validated according to HEC procedures.

The funding of the program was provided by USAID through High Education for Development (HED) as women leader development program. At the end the project, NUR/UR will run it as other University programs using national and regional collaboration network such as RUFORUM and CMAAE.

PROGRAMME STRUCTURE (include modules not bearing credit)
(please also give the same information in the table on the next page)

Add rows to either table as required. Module	Level	Semester	Achievement of Level/Programme Outcomes*
Microeconomics	6	1	*Knowledge and Understanding* Having successfully completed the module, learners should be able to demonstrate knowledge and understanding of:

			Advanced theories in microeconomics such consumer and producer behavior, market analysis, welfare economics, game theory and economics of information. *Cognitive/Intellectual skills/Application of Knowledge* Having successfully completed the module, learners should be able to: analyze agricultural scenarios modern economic models. *Communication/ICT/Numeracy/Analytic Techniques/Practical Skills* Having successfully completed the course, learners should be able to: analyze and make a good interpretation of past, current and future economic scenarios in agriculture. *General transferable skills* Having successfully completed the module, learners should be able to: advanced mathematical tools, empirical understanding of agricultural and economic situations.
Macroeconomics	6	1	*Knowledge and Understanding* Having successfully completed the module, learners should be able to demonstrate knowledge and understanding of: Basic macroeconomics principles Money markets and market equilibrium Nature of forces that affect internal and external deficits Inflation and growth of per-capita income Critical thinking applied to macroeconomics problems *Cognitive/Intellectual skills/Application of Knowledge* Having successfully completed the module, learners should be able to: Apply critical thinking to problems in macroeconomics Recognize patters across countries concerning macroeconomic problems Understand arguments used by experts in justifying macroeconomic measures Have a global awareness about macroeconomics

			Communication/ICT/Numeracy/Analytic Techniques/Practical Skills Having successfully completed the module, learners should be able to: Learn the principles of the scientific method to solving problem sets in macroeconomics Understand academic papers on macroeconomic issues based on quantitative data Acquire skills to debate the reasoning behind macroeconomic measures *General transferable skills* Having successfully completed the module, learners should be able to: Apply scientific method to solving problem sets Synthesize complex information into coherent briefs Critique local and regional macroeconomic measures with arguments based on macroeconomic theory
Econometrics	6	1	*Knowledge and Understanding* Having successfully completed the module, students should be able to demonstrate knowledge and understanding of: Fundamentals of Econometrics Regression analysis Regression analysis and Hypothesis testing How to solve problems related to the violation of the OLS regression Links between econometric results and policy formulation. *Cognitive/Intellectual skills/Application of Knowledge* Having successfully completed the module, students should be able to: Analyse agricultural scenarios using econometrics Estimate the regression models and interpret the results Students will be able to understand the tools of Econometrics and apply them *Communication/ICT/Numeracy/Analytic Techniques/Practical Skills* Having successfully completed the module, students should be able to: communicate the results obtained using computer programmes through practical sessions. *General transferable skills*

			Having successfully completed the module, students should be able to: advanced statistical analyses, empirical understanding of agricultural /economic situations.
Economics and Institutions Analysis	6	1	*Knowledge and Understanding* Having successfully completed the module, learners should be able to demonstrate knowledge and understanding, of: Causality and gender and sex sensitive research design Observable design choices for thesis research Propensity scores and dimensionality reduction Unobservable design selection Case studies with synthetic gender sensitive controls and instrumental variables Problems with statistical inference with different types of gender and sex disaggregate data *Cognitive/Intellectual skills/Application of Knowledge* Having successfully completed the module, learners should be able, in a gender perspective, to: Prepare the research design to be used in his thesis Choose a research design that best fits the research questions and study hypothesis *Communication/ICT/Numeracy/Analytic Techniques/Practical Skills* Having successfully completed the module, learners should be able to: Increase the comfort level using SPSS for data analysis Adopt best practices for high quality empirical research Practice with estimates of causal effects of a variety of explanatory variables for his problem of choice to be pursued in the masters' thesis *General transferable skills* Having successfully completed the module, learners should be able to: Be prepared to pursue gender responsive research objectives necessary for graduation Present a first version of their thesis proposal (with gender appropriate terminology and content) to the student committee members

.Global food Systems Analysis	6	1	*Knowledge and Understanding* Having successfully completed the module, learners should be able to demonstrate knowledge and understanding of: The fundamental characteristics of food systems Food systems theories, frameworks and models Paradigms in food systems gendered food systems *Cognitive/Intellectual skills/Application of Knowledge* Having successfully completed the module, learners should be able to: Explain the fundamentals of food systems Apply systems' thinking to selected food system challenges Describe the elements of sustainability of food systems Explain why food systems is necessary when drafting policy Understand resilience and vulnerability of food systems in different agro ecologies (including aspects related to foodprints and climate change) Explain and unpack gender issues in food systems *Communication/ICT/Numeracy/Analytic Techniques/Practical Skills* Having successfully completed the module, learners should be able, in a gender perspective, to: Integrate food systems theory to critiques to the public food systems policy in Rwanda Compare the national food systems with its neighbours Identify complementarities of the food system at a regional level Develop essays describing food systems from community level to regional level *General transferable skills* Having successfully completed the module, learners should be able, in a gender perspective, to: Discuss issues in food systems with a contemporary focus Define food prints in scientific and lay terminology Summarize and interpret academic and non-academic literature on food systems and what it means to agribusiness Describe the importance of food systems for the sustained food security of a country, a region and the globe Explain global dynamics in food systems for specific commodities traded worldwide (maize, wheat, rice, others).

Applied Econometrics	6	2	*Knowledge and Understanding* Having successfully completed the module, learners should be able to demonstrate knowledge and understanding, of: Causality and gender and sex sensitive research design Observable design choices for thesis research Propensity scores and dimensionality reduction Unobservable design selection Case studies with synthetic gender sensitive controls and instrumental variables Problems with statistical inference with different types of gender and sex disaggregate data *Cognitive/Intellectual skills/Application of Knowledge* Having successfully completed the module, learners should be able, in a gender perspective, to: Prepare the research design to be used in his thesis Choose a research design that best fits the research questions and study hypothesis *Communication/ICT/Numeracy/Analytic Techniques/Practical Skills* Having successfully completed the module, learners should be able to: Increase the comfort level using SPSS for data analysis Adopt best practices for high quality empirical research Practice with estimates of causal effects of a variety of explanatory variables for his problem of choice to be pursued in the masters' thesis *General transferable skills* Having successfully completed the module, learners should be able to: Be prepared to pursue gender responsive research objectives necessary for graduation Present a first version of their thesis proposal (with gender appropriate terminology and content) to the student committee members
Research Techniques	6	2	*Knowledge and Understanding* Having successfully completed the module, students should be able to demonstrate knowledge and understanding, with gender sensitivity, of: the basis of scientific research

			the sources of research ideas and research problems, problem identification and hypothesis formation relating to the research question Conducting a literature search on a given topic, ethics in research Research approaches and methods of data collection the research variables measurement, sampling techniques and research validity Quantitative, qualitative and mixed Methods Research using descriptive and inferential statistics in research Writing a professional, informative and accurate research report. *Cognitive/Intellectual skills/Application of Knowledge* Having successfully completed the module, students should be able, in a gender perspective, to: Explain what knowledge is and how it is obtained Describe and explain the characteristics of the scientific research Explain how to specify a research problem and how to formulate a hypothesis relating to the research question Describe the different types of variables used in research and their measurement Describe and explain the threats to construct validity research Describe the sampling methods and explain how to select a survey sample, discuss survey data collection methods, describe how to prepare survey data for analysis Compare and contrast quantitative, qualitative, and mixed research methods Explain the ethical issues faced by researchers when designing and conducting research Explain the descriptive and inferential statistics use in data analysis and presentation Describe how to present research results at professional conferences and other oral results presentations. *Communication/ICT/Numeracy/Analytic Techniques/Practical Skills* Having successfully completed the module, students should be able, with a gender sensitive and responsive approach, to: identify and define scientifically a research problem apply data collection techniques for data collection use quantitative, qualitative and mixed research methods take into consideration the ethical issues in a research use descriptive and inferential statistics in data analysis and presentation write and present professionally a research report *General transferable skills* Having successfully completed the module, students should be able to:

			explain knowledge and the sources of research ideas and research problems explain quantitative, qualitative and mixed research methods for conducting research Explain how to write and present professionally a research report
Agriculture research methodology	6	2	*Knowledge and Understanding* At the conclusion of the course the student will be able to understand the proper application of various experimental and be capable of analysing various types of agriculture data from a gender perspective. *Cognitive/Intellectual skills/Application of Knowledge* Each student will develop skills necessary to be actively involved in the research process and will develop skills in statistics and gender analysis *Communication/ICT/Numeracy/Analytic Techniques/Practical Skills* Having successfully completed the module, learners should be able to: Apply gender sensitive data sampling methods for data collection in agriculture Use quantitative, qualitative and mixed research methods in agriculture with a gender lens Use sex and gender disaggregated descriptive and inferential statistics in data analysis and presentation *General transferable skills* Having successfully completed the module, learners should be able, gender responsively, to: Explain knowledge and the sources of research ideas and research problems in agriculture Explain quantitative, qualitative and mixed research methods for conducting research in agriculture Explain how to analyse and present statistically gender and sex sensitive agriculture data Write research reports whose language is gender sensitive
Agribusiness	6	2	*Knowledge and Understanding* Having successfully completed the module, learners should be able to demonstrate knowledge and understanding, with a gender perspective, of: Agribusiness terminology in the global economy The role of national and international institutions in agribusiness

			National and regional policies (including gender responsive policies) in support of agribusiness expansion The market structure of the major agribusiness subsectors in Rwanda and the East African Community Challenges to agribusiness of all scales in Rwanda and the East African Community gendering market structures of agribusiness subsectors *Cognitive/Intellectual skills/Application of Knowledge* Having successfully completed the module, learners should be able, in a gender perspective, to: Understand the global forces shaping the present and future of agribusiness in Rwanda Acquire a working knowledge of supply-side and demand-side oriented agribusiness operations Analyze the incentives to foreign companies to invest in Rwanda and the East African Region *Communication/ICT/Numeracy/Analytic Techniques/Practical Skills* Having successfully completed the module, learners should be able to: Identify sources of updated information on agribusiness development Relate to and analyze (in a gender perspective) complex topics in agribusiness management, marketing and finance Become familiar with a body of literature on agribusiness globally, including literature on gender issues in agribusiness. *General transferable skills* Having successfully completed the module, learners should be able to: Compare and contrast agribusiness development schemes in Africa and around the world Be able to explain to academic and lay audiences the structure of the food and non-food agribusiness sector in Transfer this knowledge to the field when analyzing alternatives for agribusiness growth in Rwanda and the East African Region be able to do gender analysis of the agribusiness sectors and plan interventions to reduce the gender gaps

Operation management and Agriculture finance	6	2	*Knowledge and Understanding* Having successfully completed the module, learners should be able to demonstrate knowledge and understanding, with a gender lens, of: Understanding operations in agricultural production, processing and marketing Procurement of financial support for different value chain functions from input sourcing to marketing Basic issues, capabilities and limitations typical of agribusiness operations Management of production- and processing oriented agribusiness firms Management and finance applications of mainstream software (e.g., Excel) *Cognitive/Intellectual skills/Application of Knowledge* Having successfully completed the module, learners should be able to: Enhance their skills to describe, explain and interpret solutions to typical and gender responsive management and finance issues in agriculture Conceptualize, gender sensitively, specific farming and processing systems flowing along the value chain Understand complex interrelated organizational structures necessary for effective agriculture production and processing operations with a gender dimension Generate operations and gender disaggregated financial data to make informed decisions and recommendations to existing operations Apply basic steps in drafting gender sensitive projects to request gender responsive financial support from banks and other financial institutions Apply gender analytical tools to analyse management and finance issues in agriculture, operations, projects and budgets for gender sensitivity and gender responsiveness. *Communication/ICT/Numeracy/Analytic Techniques/Practical Skills* Having successfully completed the module, learners should be able to, gender responsively: Engage with existing agribusiness firms in identifying operations and financial challenges Build conceptual frameworks around firm operations and finance challenges to be addressed through applied research

			Understand operations, supply chain and finance theory Apply newly-acquired analytical skills to address every-day problems faced by Rwandan agribusiness Develop working knowledge of computer business applications (E.g., Excel) *General transferable skills* Having successfully completed the module, learners should be able to, gender sensitively: Understand complex agribusiness operations and financial statements Analyse supply chain challenges in production and processing operations Develop business plans and financial projections to request loans Master project presentation skills Develop comprehensive operations and financial written assessments
Strategic Management in Agribusiness	6	3	*Knowledge and Understanding* Having successfully completed the module, learners should be able to demonstrate knowledge and understanding of: Economic and business theory with a gender perspective Agribusiness firm behaviour in a cross-cultural and gender friendly environment Challenges and opportunities for gendered agribusiness firms in domestic and regional emerging markets. Skills to direct, engage and conduct gender responsive strategic planning in agribusiness firms Government and NGO-led efforts to facilitate private sector gender responsive investments in agribusiness *Cognitive/Intellectual skills/Application of Knowledge* Having successfully completed the module, learners should be able to: Become familiar with the latest academic and industry-led research defining strategic management for firms working in complex and competitive environments. Develop analytical skills to discern between winners and losers in a market-led agribusiness environment Assess and understand the classic economic constraints for agribusiness growth and specific cases applied to Rwanda and the East African Region. Discuss and explain with business theory and examples transaction costs economics in agribusiness

			Engage in short-term and long-term assessments of value chains in Rwanda and present results in an academic environment as well as to lay audiences in the entrepreneurial world. Integrate gender in strategic management for firms working in complex and competitive environment *Communication/ICT/Numeracy/Analytic Techniques/Practical Skills* Having successfully completed the module, learners should be able to: Identify agribusiness opportunities based on quantitative data from secondary or primary sources. Critique recent value chain studies on a variety of aspects from quality of data used to practicality to the target entrepreneurial/industry sector. Understand supply chains and develop skills and apply methods to account for all logistics costs involved Formulate and test hypothesis in different scenarios of data availability Understand and analyze the impact of externalities on growth of the agribusiness firm in Rwanda. Carry out gender and sex analysis of data and propose gendered scenarios in agribusiness planning *General transferable skills* Having successfully completed the module, learners should be able to, gender sensitively: Exercise leadership in agribusiness planning with entrepreneurs of different scales Plan and execute agribusiness case studies around value chain problems Apply principles of strategic management in applied decision making at the firm level Excel in making formal presentations of strategic management assessment results Perform agribusiness strategic management assessments with use of economic theory to understand the behaviour of agribusiness firms and develop recommendations to enhance profits.
Agribusiness Value-Chain Management	6	3	*Knowledge and Understanding* Having successfully completed the module, learners should be able to demonstrate knowledge and understanding of: Key elements of the value chain approach Value chains and Africa's development agenda

			Analysing and evaluating value chains Limitations of the value chain concept in agribusiness Case studies in agribusiness value chain management Gender dimension in the value chain approach *Cognitive/Intellectual skills/Application of Knowledge* Having successfully completed the module, learners should be able to: Critique strengths and weaknesses of value chain and value chain benchmarking studies Conduct basic value chain studies focused on costs and shifting value across actors Understand and differentiate management challenges in the value chain Determine different management intervention points along the value chain Apply strategic thinking to value chain management challenges Conduct value chain studies focused on gender issues *Communication/ICT/Numeracy/Analytic Techniques/Practical Skills* Having successfully completed the module, learners should be able to: Understand issues of governance in the value chain and their relationship to management challenges Understand gender dimension in the value chain and their relationship to management challenges Interview agribusiness company representatives about their management challenges Conduct research relevant to at least one agribusiness company in Rwanda Present alternatives to one or more agribusiness firms on how to innovate the value chain management system in place, including gender integration, and make informed decisions Develop a technical report addressing a value chain management bottleneck *General transferable skills* Having successfully completed the module, learners should be able to: Exercise leadership in innovative thinking concerning gender responsive value chain management

			Practice applicable analytical skills in the context of Africa's agricultural value chains Adapt ideas on trends and competitive forces in value chain management to the national and regional contexts Master methodological tools to develop gender sensitive value chain studies Perform agribusiness value chain benchmarking gender sensitive assessments
Agribusiness Marketing	6	3	*Knowledge and Understanding* Having successfully completed the module, learners should be able to demonstrate knowledge and understanding of: Agribusiness gender sensitive marketing terminology The major marketing issues for firms of different scales operating in different links of the gender responsive value chain Describing, taking into account the gender and sex differences, the market structure of major commodities in developed and emerging economies Formulation of marketing strategies for agribusiness companies addressing the gender differences and striving to bridge the gender gaps *Cognitive/Intellectual skills/Application of Knowledge* Having successfully completed the module, learners should be able to, gender sensitively and responsively: Provide practical applications for agribusiness marketing strategies Learn measurements of risks of investments in agribusiness marketing Understand different marketing techniques for raw materials and value-added products Acquire a working knowledge of marketing techniques for inputs as well for services in agribusiness *Communication/ICT/Numeracy/Analytic Techniques/Practical Skills* Having successfully completed the module, learners should be able to: Understand the different qualitative and quantitative components of marketing assessments with a gender lens Assess the structure of gender responsive budgets for products and services in Excel

			Learn from different case studies how cost build-up scenarios are modeled in preparation of marketing programs taking into consideration the gender dimension Conduct hypothetical and real private sector interviews around the issues of marketing *General transferable skills* Having successfully completed the module, learners should be able to, gender sensitively: Plan marketing assessments Develop marketing budgets for products and services Account for different cost build-up scenarios when introducing change to existing marketing programs Work with existing companies to identify and diagnose marketing problems Identify managerial challenges in companies to develop agribusiness marketing strategies
Internship	6	3	*Knowledge and Understanding* Having successfully completed the module, learners should be able to demonstrate knowledge and understanding of the impact of potential solutions in global, economic, environmental, and cultural/societal contexts. Learners are expected to consider the work assignments impact on global, economic, environmental, and cultural/societal contexts. *Cognitive/Intellectual skills/Application of Knowledge* Having successfully completed the module, learners should be able to demonstrate Understanding of professional and ethical responsibility. Can clearly frame work task(s) and responsibilities and initiate resolution. Understands who to communicate with to most effectively engage the work task(s) (e.g. stakeholders: workers, administrators, etc.). Can identify related ethical considerations, such as health and safety, fair use of funds, and doing "what is right" for all involved. *Communication/ICT/Numeracy/Analytic Techniques/Practical Skills* Having successfully completed the module, learners should be able to communicate effectively. Can work collaboratively and build on other's ideas to accomplish work responsibilities. Invites and encourages participation

			of all participants. This definition focuses on all forms: written, verbal, digital. *General transferable skills* Having successfully completed the module, learners should be able to consider contemporary issues in their discussion and identification of possible approaches to the work assignment. The student will demonstrate the ability to use modern techniques, skills, and knowledge to address real world problems. The activities in this area depend on the nature of the experience, but could include the following: problem/system analysis, design/synthesis of a problem/system/process, testing methods, or implementation of a system (such as cost/benefit studies).
Thesis	6	4	

Note: Programme outcomes are to be shown in bold. Most outcomes will be achieved, finally, at Level 5, but some may be achieved earlier in the programme.

CURRICULUM MAP for programme outcomes (add rows or columns as required) – tick where outcome is achieved

Learning outcome □□□□□□																													
Level/Module □																													

5. LEARNING AND TEACHING STRATEGY

This masters, is a course work programme, students will sit in class (Part-time or full time) but with more practical cases studies.

ASSESSMENT STRATEGY

The programme will emphasize on continuous assessment (assignment, papers writing, essays...) and a final written exam will be given.

STUDENT PROFILE

This program will aim at enrolling at least 50% female students in the agribusiness master's program. From course planning to special seminars, the adoption of a gender-inclusive strategy in higher education and across agricultural value chains will be promoted.It is expected that, with increased gender-awareness, improved human resources, government, NGO and private sector ventures will be more effective in building human resource capacities in a rapidly changing agribusiness environment

SPECIFIC ADMISSION CRITERIA

Regarding the admission of students, the admissions criteria will be carefully developed with emphasis on recruiting women. Additionally, because of the emphasis to build strong analytical skills throughout the two years of the program, NUR and MSU are considering the use of standardized tests (such as the Graduate Records Examination-GRE) to applicants. This will be an impartial way assessing the applicants' eligibility to the program and the first indicator that he/she will perform as expected in the course program.

STRATEGY FOR STUDENT SUPPORT

The establishment of an integrated research agenda will contribute to improving the connection between education and research. Integrating graduate students into NUR research and outreach activities will also lead to high quality research while promoting gender equality and women's leadership. MSU faculty will be encouraged to co-supervise graduate students research or to be a member of their advisory committee. This method will help students to acquire practical skills. In addition students will be facilitate to do internships in international or regional enterprises of institutions.

PROGRAMME-SPECIFIC NEED FOR RESOURCES AND UNUSUAL DEMANDS ON INSTITUTIONAL RESOURCES

n.a

STRATEGIES FOR CONTINUOUS ENHANCEMENT AND FUTURE DEVELOPMENT

The key to success on future development of this programme, NUR, MSU and WSU, will continue to look for further funds and income generation activities.

STAFF DEVELOPMENT PRIORITIES

In partnership with Michigan State University and Washington State University, the academic staff from NUR faculty of Agriculture and others will receive pedagogical skills to teach gender sensitive agricultural sciences and supervise agricultural research. The administrative staff will receive short courses focused on working with diverse learning groups, including women.

ANY OTHER ESSENTIAL INFORMATION

PROVISIONAL APPROVAL

Members of Approval Panel

Role/location		Date
1 Chair (VRAC)	Signature	
	Print Name	
2	Signature	
	Print Name	
3	Signature	
	Print Name	
4	Signature	
	Print Name	
5	Signature	
	Print Name	
6	Signature	
	Print Name	
7	Signature	
	Print Name	
8	Signature	
	Print Name	

Seen and noted

Library	Signature	
	Print Name	
ICT	Signature	
	Print Name	
Quality Office	Signature	
	Print Name	
VRAF	Signature	
	Print Name	

Appendix C: Research Reports from Seed Grant Recipients

Understanding best management adoption and markets risks
with an emphasis on Gender roles.

Research Project Progress Report Report

Dr Jean Chrysostome NGABITSINZE
Principal Investigator (UR Side)
Prof T Randall Fortenbery (WSU Side)

Project summary

Project Summary: Coffee exports from Rwanda date to colonial times with the first exports occurring in 1907. Today Rwanda enjoys a booming coffee sector. Even though only a small minority of Rwanda's 400,000 coffee growing households are involved in the specialty coffee sector, the turnaround is widely perceived as a success story, receiving positive coverage in popular media[8] and even from the most notorious aid skeptics. While the industry is experiencing renewed growth, various challenges must be addressed to ensure its success and sustainability. Among those challenges is the lack of adoption of various inputs as well as diminished participation of women in critical areas of the coffee sector. The goal of this project is to assess the willingness of producers to adopt best practices and evaluate the role of gender in the input use decision-making process. An in-depth economic study will be conducted in two coffee regions in Southwest Rwanda. This study will rely on the use of discrete choice modeling methods to estimate producers' willingness to adopt best practices. Results will inform policy in the Rwandan coffee sector with respect to input use and availability and will provide information regarding the role of women in this critical industry.

Background of coffee sector in Rwanda

Coffee in Rwanda dates from its introduction in 1904 with its first export occurring in 1907. It was imposed by the colonialists on agriculturists beginning in 1927, and after the independence the coffee culture continued to benefit from the support of the authorities. Upon its introduction, coffee became the major source of income in rural Rwanda and benefited from strong political support from colonial and post-colonial authorities. Its cultivation was made compulsory in 1933 and legislation passed at Independence in 1963 prohibits uprooting of coffee trees. Historically, the colonial authorities essentially forced farmers to grow coffee.

The ministry of Agriculture and Animal resources (MINAGRI) established a parastatal agency, "OCIR-Café"(*Office des Cultures Industrielles du Rwanda-Café*) with monopolistic powers to organize the smallholder planters, purchase their crops in the form of *café parche*, contract with private factories, facilitate the processing of the *parche* into green coffee (*café marchand*), and sell the final product on the international market. OCIR was created in 1964, with a mandate of

[8] Just to give one of many examples: FRASER, L. "Coffee, and Hope, Grow in Rwanda", published: August 6, 2006. Taken from
http://www.nytimes.com/2006/08/06/business/yourmoney/06coffee.html?_r=1

searching for marketing outlets for the coffee produced in Rwanda. Tea production had not yet begun and was included later. From that time until 1988 two exporting companies, Rwandex and Etiru, had marketing monopolies. Rwandex had by far the greater share of the exports.

Market research was commenced in 1991 to introduce liberalization. However, liberalization started only after the 1994 genocide with the licensing of several private coffee exporters and the installation of several parchment mills by companies Rwandex, Rwacof, Coffex, Caferwa, etc. As a result the coffee marketing chain has now changed from a central monopsony to a free market. The mandate of OCIR-Café has changed and is now focused on promotion, regulation and as the monitoring agency in the sub-sector. In his study, Loveridge (2003) found that the decline in coffee production is primarily due to reduced numbers of growers, and that production is more geographically concentrated than in pre-war years. A diagnostic analysis of the Rwandan coffee supply chain carried out by a coffee expert on the account of SNV (*the Netherlands development organization)* mentioned three main reasons of decline next to the decreasing of world coffee prices: the old age of the coffee-trees (a large number of trees exceed 20-25 years, the limiting age of an economically optimal exploitation); the low remunerative price of green coffee which encourages the growers to divert towards the cultivation of food crops; and the abandonment of good cultivation methods (cut backs, pruning, mulching, etc). In response to the steady decline in production, quality and export earnings also fell. In view of the recognized potential contribution that the sector could make to increasing economic growth, the Government of Rwanda adopted the 1999-2003 Coffee and Action Plan. In 2004, an exploratory study carried out by the American consultancy firm 'On the Frontier (OTC)', assisted the Government of Rwanda in redefining policies and strategies according to the previous 1999-2003 action plan and set the "Horizon 2010 Coffee Action Plan".

Following these measures, coffee washing stations were built, new trees were planted and an international demand for fully washed Rwandan specialty coffee was created. According to Anno (2012), even though only a small minority of Rwanda's 400,000 coffee growing households are involved in the specialty coffee sector, the turnaround is widely perceived as a success story, receiving positive coverage in popular media[9] and even from the most notorious aid skeptics[10]. In an attempt to duplicate the success story, both government agencies and donor institutions take the turnaround program for the coffee sector as a model for the development of other high-value agricultural supply chains in Rwanda. However, because of the abandonment of good cultivation methods in the previous decade, more research is needed regarding farmer adoption of good agricultural practices and relevant technologies. Additionally, there is a lack of information regarding women coffee farmers and how they approach coffee farming.

[9] Just to give one of many examples: FRASER, L. "Coffee, and Hope, Grow in Rwanda", published: August 6, 2006. Taken from
http://www.nytimes.com/2006/08/06/business/yourmoney/06coffee.html?_r=1

[10] EASTERLY, W. and FRESCHI, L. "Rwanda's coffee success story", published May 12, 2010, on the aid watcher's blog: http://aidwatchers.com/2010/05/rwanda%E2%80%99s-coffee-success-story/

Project Problem and Outputs: The goal of this project is to identify constraints associated with the adoption of best management practices in the face market risks with an emphasis on Gender roles.

Main objectives of this proposal are:

To analyze farmers' best management practices adoption on coffee production, and the impact of market risks on adoption.
Determine whether adoption rates differ by Gender.
Quantify the role of international coffee trade on export prices and price volatility in the Rwandan coffee sector.

The results from the implementation of this project will:
Inform Coffee industry stakeholders of the benefits from adoption of best management;
Inform policy makers on how international prices impact the current trade situation of the Rwandan coffee sector;
Provide useful information on gender roles and decision making on the application of best management adoption on coffee production.

Project Methodology: As data on individual coffee farmer behavior is not readily available, this project will rely on primary data to meet its objectives. A survey questionnaire will be developed to obtain information on farmers' best management and coffee prices. In addition, international data on prices will be used at least for last 10 years.

Our sample will be comprised of around 300 farmers from Southern/Central-South plateau, (Maraba/Huye Coffee), and Eastern sites (Masaka/Kicukiro coffee); approximately 150 from each location. The choice of the aforementioned provinces is important to this study because each of these locations has various levels of application of best management practices such as time and rate of fertilization, use of pesticides, tree management (pruning, etc.), as well as unique challenges getting the product to the initial market. Key variables to be extracted from each producer include: household characteristics, number of trees, time and rate of fertilization, use of pesticides, tree management (pruning, mulching and weeding, re-planting), yields, prices received, and post-harvest activities (transportation, washing).

An important component in understanding challenges and opportunities in adopting best management practices is appreciating the market risks faced by market participants. This component of the research will rely on both survey data (prices) and secondary data on international prices, including futures prices for coffee traded at the ICE futures exchange in New York.

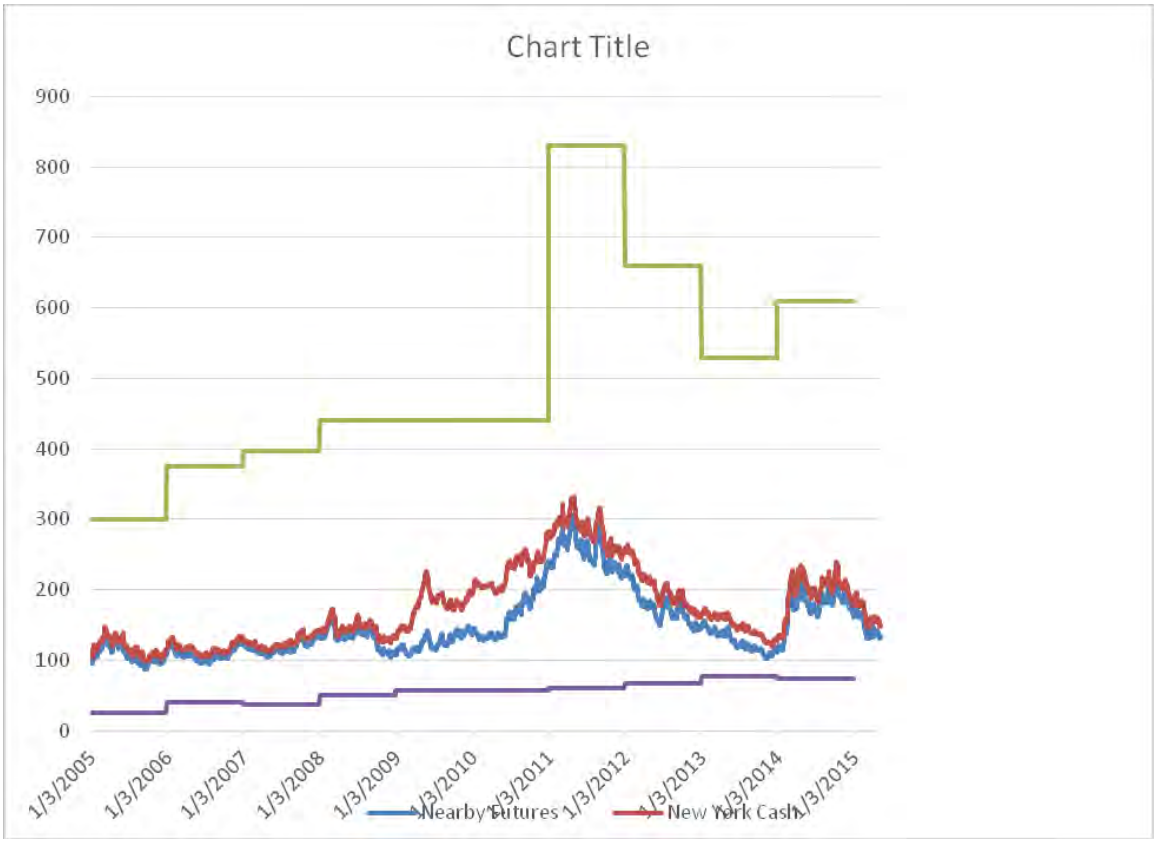
Assuming non-stationarity in prices (this will be empirically tested, but has been shown in other coffee markets by Fortenbery and Zapata (Review of Agricultural Economics 2004)), cointegration analysis will be employed to determine causality in prices (unidirectional and bi-

directional) between international and Rwandan markets, and the time associated with returning to equilibrium when a shock occurs in either market. This will provide insight as to how sensitive Rwandan prices are to outside influence, and the time it takes for the market to adjust to changes in international markets. Based on these results, we can then test for causality in variance – or measure how international coffee events impact on price volatility in Rwanda. Together these provide a measure of price risks faced by Rwandan producers. While beyond the scope of this initial project, the empirical results employing ICE futures can be used to develop actuarial risk measures based on futures options, and aid in development of price insurance policies that can be offered to farmers. Once prices are insured, producers face reduced risk in adopting best management practices,

The results of this research will allow us to 1) understand the impediments associated with more comprehensive adoption of best management practices, 2) identify the role of price risk in curtailing adoption, 3) develop baseline research needed to develop a price insurance program to address market risk issues, and 4) examine the extent to which Gender impacts on management practices and risk attitudes.

LOCAL PRICE ANALYSIS VS INTERNATIONAL PRICE BY PROF T. RANDALL FORTENBERY

A comparison among local prices and international price were conducted to test if there is a positive influence from international price fluctuation and local prices. The following are some figures but we still working on this part because we are constructing a time series data base to be able to run a cointregration.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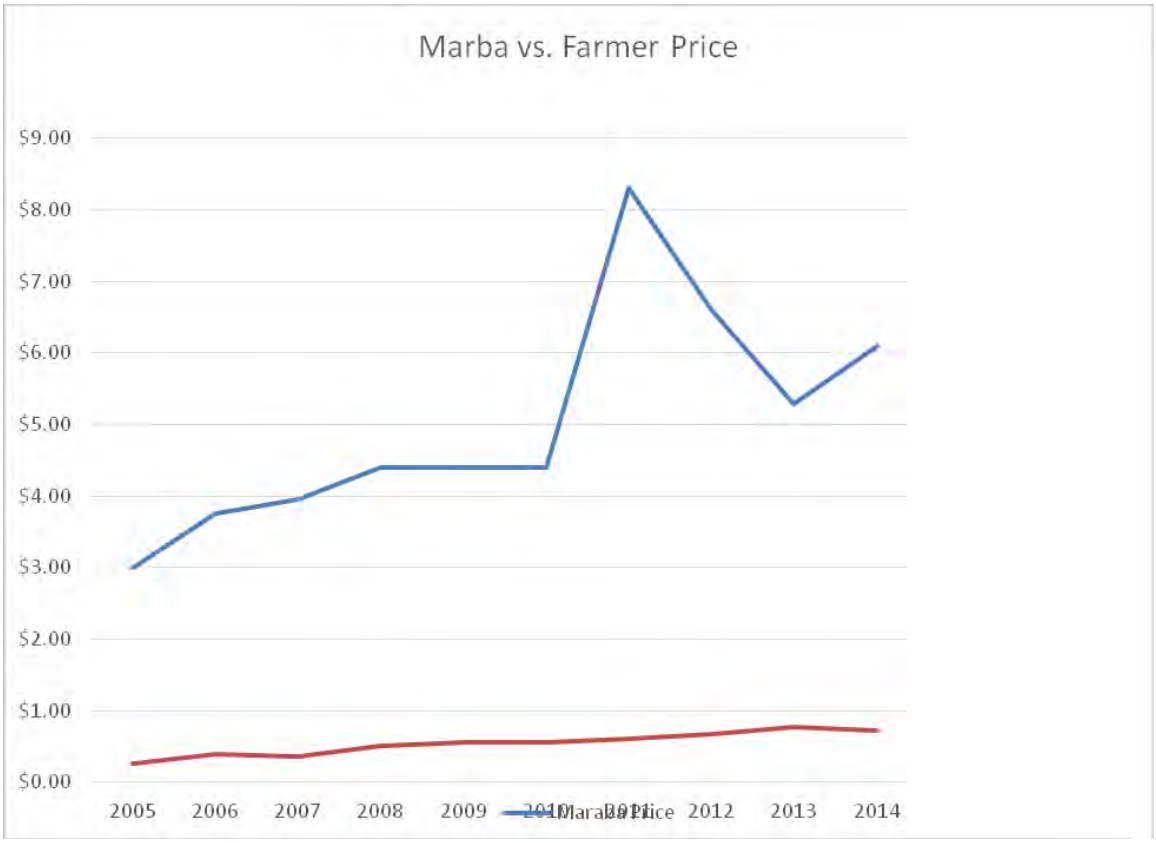
1/3/2014
1/3/2015
Nearby Futures
New York Cash


Marba vs. Farmer Price
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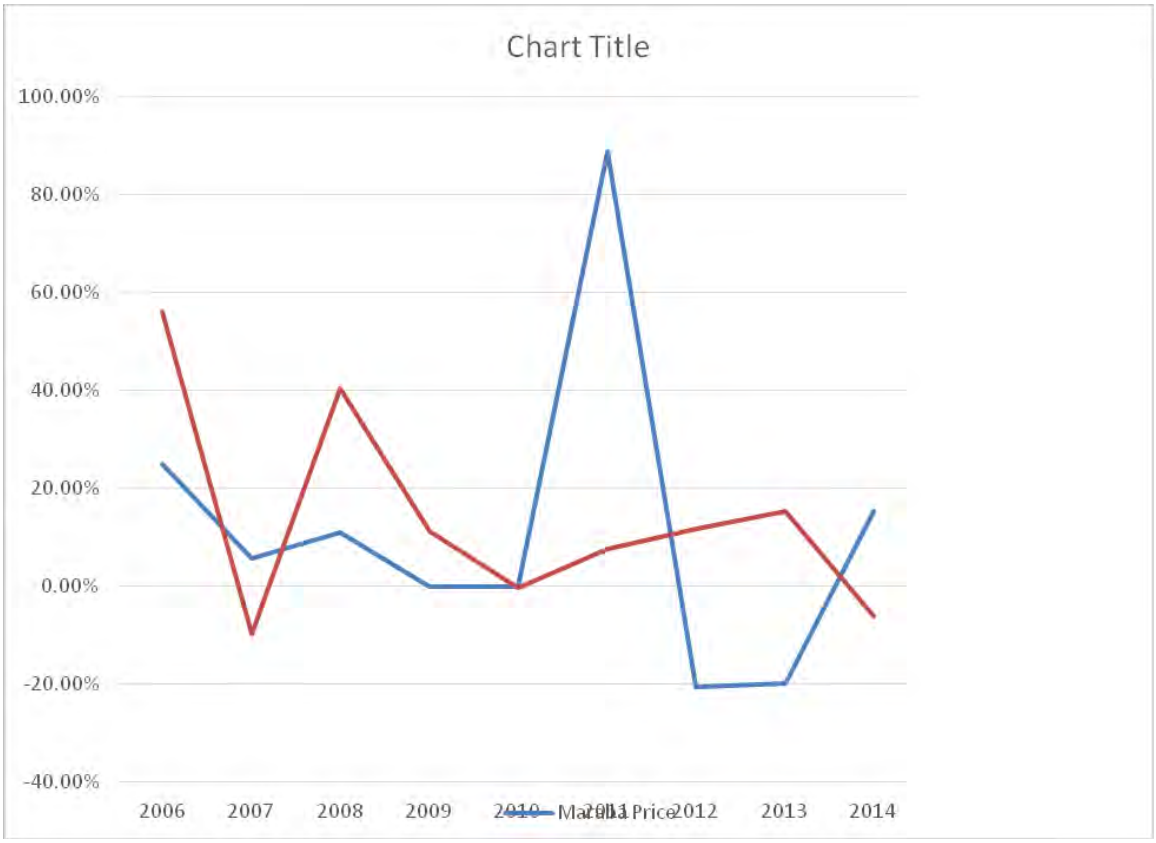
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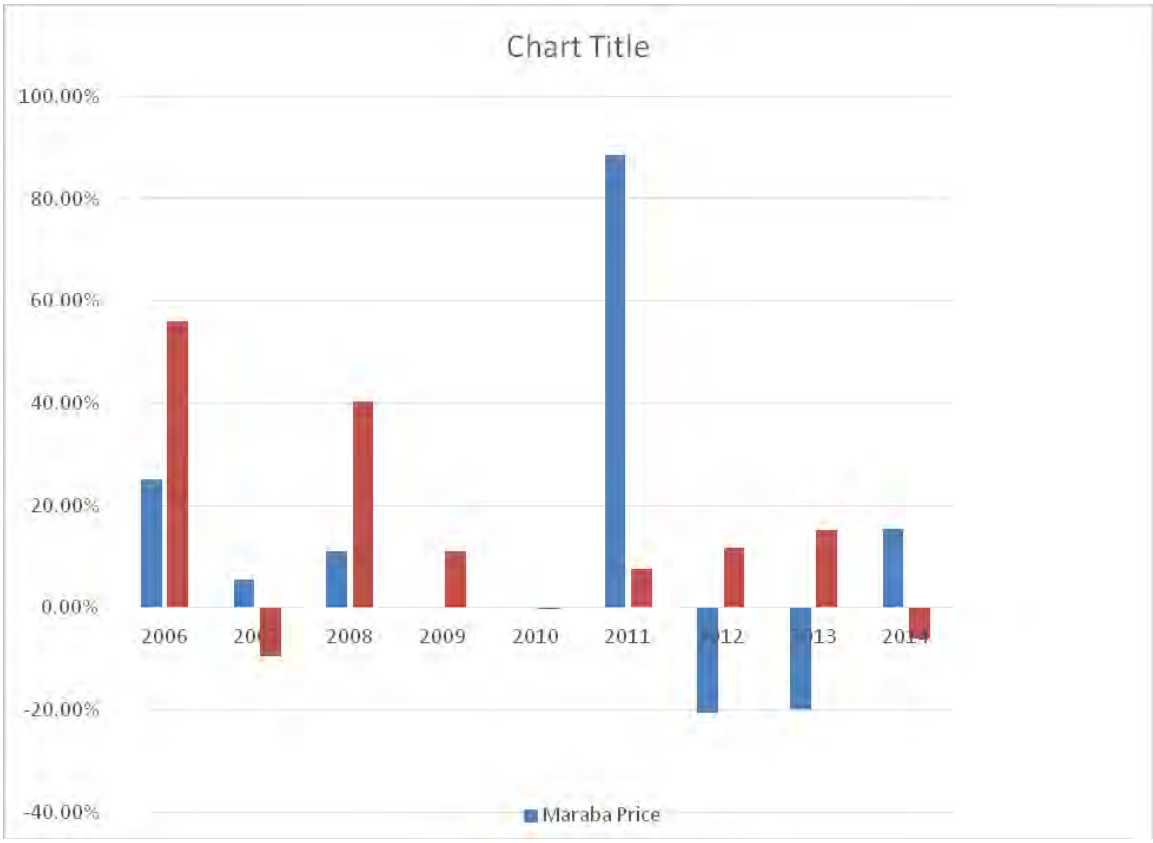

PRIMARY DATA COLLECTION AND SURVEY FINDINGS: BY DR JEAN CHRYSOSTOME NGABITSINZE

Data Description

The survey was done in two Districts Huye and Kicukiro, we survey 114 households in Huye and 116 in Kicukiro. The respondednt were distributed Maraba sector in Huye and Masaka sector in Kicukiro. We have 127 males and 102 females. Other variables are below and we still interpreting them and doing further analysis to meet the research scope.

District

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Huye	114	49.6	49.6	49.6
	Kicukiro	116	50.4	50.4	100.0
	Total	230	100.0	100.0	

Sectors

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MARABA	114	49.6	49.6	49.6
	Masaka	116	50.4	50.4	100.0
	Total	230	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-30	54	23.5	23.5	23.5
	31-40	42	18.3	18.3	41.7
	41-50	35	15.2	15.2	57.0
	51-60	62	27.0	27.0	83.9
	above 60	36	15.7	15.7	99.6
	14	1	.4	.4	100.0
	Total	230	100.0	100.0	

Education level of farmers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not attended school	59	25.7	25.7	25.7
	primary	155	67.4	67.4	93.0
	secondary	16	7.0	7.0	100.0
	Total	230	100.0	100.0	

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	127	55.2	55.2	55.2
	2	102	44.3	44.3	99.6
	3	1	.4	.4	100.0
	Total	230	100.0	100.0	

Main occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Farming	214	93.0	93.0	93.0
	Commerce	4	1.7	1.7	94.8
	Paying job	11	4.8	4.8	99.6
	Craftman	1	.4	.4	100.0
	Total	230	100.0	100.0	

Family size of the farmers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	1.7	1.7	1.7
	2	11	4.8	4.8	6.5
	3	23	10.0	10.0	16.5
	4	39	17.0	17.0	33.5
	5	45	19.6	19.6	53.0
	6	41	17.8	17.8	70.9
	7	33	14.3	14.3	85.2
	8	18	7.8	7.8	93.0
	9	8	3.5	3.5	96.5
	10	4	1.7	1.7	98.3
	11	1	.4	.4	98.7
	12	3	1.3	1.3	100.0
	Total	230	100.0	100.0	

Farm size

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<1 ha	138	60.0	60.0	60.0
	1-2 ha	89	38.7	38.7	98.7
	2-5 ha	3	1.3	1.3	100.0
	Total	230	100.0	100.0	

Family size of the farmers<18 years

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	45	19.6	19.6	19.6
	1	41	17.8	17.8	37.4
	2	50	21.7	21.7	59.1
	3	36	15.7	15.7	74.8
	4	28	12.2	12.2	87.0
	5	21	9.1	9.1	96.1
	6	9	3.9	3.9	100.0
	Total	230	100.0	100.0	

source of the farm

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	brought	27	11.7	11.7	11.7
	inheritance	152	66.1	66.1	77.8
	rented	1	.4	.4	78.3
	gift	4	1.7	1.7	80.0
	Bought,inheritance	46	20.0	20.0	100.0
	Total	230	100.0	100.0	

reasons to join cooperative

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Job	20	8.7	11.6	11.6
	Loan,fertilizer	14	6.1	8.1	19.8
	technical assistance,training	9	3.9	5.2	25.0
	Market, good price	44	19.1	25.6	50.6
	Facilities	38	16.5	22.1	72.7
	Rise the yield	15	6.5	8.7	81.4
	Bonus	12	5.2	7.0	88.4
	Health insurance,good price	20	8.7	11.6	100.0
	Total	172	74.8	100.0	
Missing	System	58	25.2		
Total		230	100.0		

Were you growing coffee before joing the cooperative

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	169	73.5	98.8	98.8
	No	2	.9	1.2	100.0
	Total	171	74.3	100.0	
Missing	System	59	25.7		
Total		230	100.0		

Cooperative assistance to the farmers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Access to credit	54	23.5	31.4	31.4
	Extension services	33	14.3	19.2	50.6
	Provision of farm input	32	13.9	18.6	69.2
	Building collection centre	50	21.7	29.1	98.3
	None	3	1.3	1.7	100.0
	Total	172	74.8	100.0	
Missing	System	58	25.2		
Total		230	100.0		

Which constraints were faced before joining this coopeartive

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Technical assistance	5	2.2	3.0	3.0
	Lack of fertilizer,pesticides	35	15.2	20.7	23.7
	lack of facilities,low yield	67	29.1	39.6	63.3
	low price,robbery of coffee	51	22.2	30.2	93.5
	Lack of dry space,mulching	4	1.7	2.4	95.9
	Lack of credit	7	3.0	4.1	100.0
	Total	169	73.5	100.0	
Missing	System	61	26.5		
Total		230	100.0		

Do you get any support from outside

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	58	25.2	25.3	25.3
	No	171	74.3	74.7	100.0
	Total	229	99.6	100.0	
Missing	System	1	.4		
Total		230	100.0		

If yes, who provide you support

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Government	45	19.6	75.0	75.0
	NGO'	11	4.8	18.3	93.3
	SPREAD	2	.9	3.3	96.7
	SACC0	2	.9	3.3	100.0
	Total	60	26.1	100.0	
Missing	System	170	73.9		
Total		230	100.0		

what is the distance within trees

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1m	45	19.6	19.6	19.6
	2m	183	79.6	79.6	99.1
	2.5m	1	.4	.4	99.6
	4	1	.4	.4	100.0
	Total	230	100.0	100.0	

which year did you plant coffee trees

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<5 years	34	14.8	14.8	14.8
	5-15 years	43	18.7	18.7	33.5
	16-30 years	46	20.0	20.0	53.5
	>31 years	107	46.5	46.5	100.0
	Total	230	100.0	100.0	

what type of cropping do you practice

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	mixed	16	7.0	7.0	7.0
	Mono cropping	213	92.6	92.6	99.6
	other	1	.4	.4	100.0
	Total	230	100.0	100.0	

what are activities you normally do

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	All Pre-harvesting activities+sorting+grading+transport	111	48.3	48.3	48.3
	pre-harvesting activities except mulching+sorting+transport	68	29.6	29.6	77.8
	pre-harvesting activities except applying fertilizers+sorting+transport	49	21.3	21.3	99.1
	4	2	.9	.9	100.0
	Total	230	100.0	100.0	

where do you sell your cherries

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Cooperative	126	54.8	54.8	54.8
	Private processor	28	12.2	12.2	67.0
	Middlemen	7	3.0	3.0	70.0
	cooperative,Private	50	21.7	21.7	91.7
	cooperative,middlemen	19	8.3	8.3	100.0
	Total	230	100.0	100.0	

how do you transport your cherries to coffee washing station

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	By head	149	64.8	64.8	64.8
	Bike	81	35.2	35.2	100.0
	Total	230	100.0	100.0	

what are the benefit of growing coffee

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Gaining enough income	60	26.1	26.1	26.1
	Saving	65	28.3	28.3	54.3
	Acccess to credit	12	5.2	5.2	59.6
	Saving,access to credit	55	23.9	23.9	83.5
	able to buy livestock,build house	33	14.3	14.3	97.8
	None	5	2.2	2.2	100.0
	Total	230	100.0	100.0	

Off farm income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	92	40.0	40.0	40.0
	No	137	59.6	59.6	99.6
	2	1	.4	.4	100.0
	Total	230	100.0	100.0	

Have you borrowed money for different purposes last year

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	114	49.6	49.6	49.6
	No	115	50.0	50.0	99.6
	4	1	.4	.4	100.0
	Total	230	100.0	100.0	

Source of money

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Relative	19	8.3	16.5	16.5
	Friend	11	4.8	9.6	26.1
	Other farmers	13	5.7	11.3	37.4
	Credit from Micro-finance	43	18.7	37.4	74.8
	Cooperative	27	11.7	23.5	98.3
	SACCO,Cooperative	2	.9	1.7	100.0
	Total	115	50.0	100.0	
Missing	System	115	50.0		
Total		230	100.0		

Use of borrowed money

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Buying fertilizer	3	1.3	2.6	2.6
	Buying other farm input	17	7.4	14.8	17.4
	Non-farm business or trade	23	10.0	20.0	37.4
	Buying food	15	6.5	13.0	50.4
	Chrildren's education	27	11.7	23.5	73.9
	coffee production	2	.9	1.7	75.7
	Buying livestock	19	8.3	16.5	92.2
	Building house	9	3.9	7.8	100.0
	Total	115	50.0	100.0	
Missing	System	115	50.0		
Total		230	100.0		

sources of money for coffee production

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Savings from salary	7	3.0	3.0	3.0
	Profit from other farming activities	82	35.7	35.7	38.7
	Profit from coffee farming	64	27.8	27.8	66.5
	Remittances and profit from coffee	20	8.7	8.7	75.2
	Profit from other farming activities and minimum wage	57	24.8	24.8	100.0
	Total	230	100.0	100.0	

what are the requirements for you to get loan from your financier

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	collateral	53	23.0	45.3	45.3
	Business plan	4	1.7	3.4	48.7
	Deposit of percentage of loan	2	.9	1.7	50.4
	references from freinds	7	3.0	6.0	56.4
	Membership to a cooperative	45	19.6	38.5	94.9
	membership,collateral	6	2.6	5.1	100.0
	Total	117	50.9	100.0	
Missing	System	113	49.1		
Total		230	100.0		

Questionnaires

Name of Enumerator……
A. Identification
1. Name of respondent……
District: ----------
Sector: ----------
Cell: ----------
Date of interview: Day: ---------- Month: ---------year--------

B. Household characteristic

1. Gender of respondent
Female=0, Male=1,
2. Age of respondent
……..years.
3. Education level of respondent
No formal education =1, Primary school education =2, secondary school Education =3, University=4
Other, specify…….
4. Number of members in the HH: .....
How many children are aged less than 18 years? .....
How many adults (More than 18 years) are in your family? .....
What is your main occupation: 1= farming, 2= commerce, 3= paying job, 4= craftman

C. Farm characteristics of the household head

5. What is the size of your farm? ……. Hectares (ha)
6. Do you own it?
Yes=1, No=0
7. If the answer is yes, how did you acquire it?
Bought=1, Inheritance=2, leased=3
Other, specify ……
8. Are you member of any group (cooperative or association)?
Yes=1, No=0
9. If the answer is No, why?
High membership fees=1, I'm not interested=2,
Other, specify……
10. If your answer above is yes, indicate year of joining, the membership and annual fees?
Membership fees……RwF, Annual fees …….....RwF, Year of joining…….
11. What is the name of your cooperative? .....
12. How does membership to the cooperative benefit your coffee farming? Rank in order of importance:

Bargaining higher prices……., Ensuring compliance of quality standards……, Opening new market outlets …... Training on business management……,
Other, specify…….
13. How does the cooperative assist to improve coffee productivity? (Rank in order of importance starting with most important)
Extension of credit....., offering farm extension services....., Provision of market information ....., Offering transport services to the markets ....., Offering coffee storage and processing facilities.....
13.1. At what extend you trust your cooperative?
1= not, 2= low trust, 3= middle trust, 4= high trust
14. What are five most important crops that you grow?

crop	Size of land in hectuare
1.	
2.	
3.	
4.	
5.	

15. What is the estimated size of your land under coffee cultivation?
<1 acre= 1, 1-2acres= 2, 2-5acres=3, above 5acres=4
17. How long have you been a smallholder coffee farmer?
Less than 5yrs = 1, 6-10 yrs=2, 11-15 yrs =3, 16-20 yrs = 4, Over 20 yrs =5
18. How many trees do you have in your coffee farm? .....
What is the spacing of the coffee trees? .....
Which year did you plant coffee? …….
19. What kind of cropping do you practice?
Mixed cropping=1, Mono cropping (coffee) =2

20. What are the types of activities you normally do?

Farm activity codes	Type o fertilizer:	Agrochemicals	Labour types
1= Land preparation 2= Manure application 3= Mulching 4= Fertilizer application 5= Pesticide application 6= Weeding 7= Harvesting 8= Transport to market 9=others (specify)	1=Planting (basal) 2=Topdressing 3=Manure 4=others (specify)	1= Pesticides 2=Herbicides 3=Fungicides 4=others (specify)	1=Casual 2=permanent 3= family

21. What yield of coffee cherries harvested in Kgs Last season? ……..
22. When through with cherry picking what you do you do?

Sorting=1, Floating= 2, Grading=3, De- pulping=4, Milling=5
Other, specify ……..

23. Where do you sell your produce for processing?
None=1, Farmers' cooperative=2, private processor=3, Middlemen=4
Other, specify…….

25. How do you transport cherries to the coffee factory?
By head=1, Bike=2, Pick up=3
Others specify……..

D. Trading

Coffee crop	Harvest (Cherries)		Sales	Quantity sold		
	Unit	Quantity	1=None 2= farmers' cooperative 2= Middlemen 3=private processor 4=Others	unit	Quantity	price

25. a. Do your buyers pay you on time
Yes=0, No=1

25.b.What are the benefits of growing coffee?
Gain enough income=1, Be able to save=2, Facility of getting credit=3
Other, specify……..

E: Financial information

26. Do you do any off- farm jobs for income?
Yes =1, No=0

26 (a) if yes how much money have earned last year?,,,,,,,,,,,,,,,,,,,,,,,,,,,rwf

27. Do you have access to credit that you use in coffee production?
Yes=1, No=0

28. If yes, indicate the sources:
Loan from Commercial bank = 1, loan from microfinance institution =2,
Loan from cooperative =3, Credit from farmers' cooperative =4, loan from Neighbours =5, loan from Relatives/friends = 6
Others, specify……..

29. If no, can you give reasons?
No collateral=1, Expensive to pay=2, not available=3,
Other, specify……..

30. What are other sources of finance for coffee production expansion?

Savings from salary income=1, Profit from other farming activities =2, Profit from coffee farming =, Remittances by employed family members=4

31. What are the requirements for you to get credit from your financier?

Collateral = 1, Business plan =2, Deposit of percentage of loan = 3, References from friends =4, Membership to a group = 5

32. Are you given the loan equal to amount applied?

Yes =1, No =2

33. If the answer is no, indicate the most appropriate reason?

Collateral not adequate = 1, Collateral adequate but denied amount =2, Cash flow okay but denied amount =3, Membership to a group but denied amount = 4, Unable to pay cost of processing loan =5

34. What is other kind of credit do you get?

Name of other credit	source
1.	
2.	
3.	

F. Source of market information

35. From what source do you receive information about consumer demand for coffee products?

OCIR-Café =1, Informal milk traders =2, Radio =3, Bulletins =4, Newspapers and magazines =5, other farmers=6, none=8

Other, specify…….

36. How do you receive information on the market prices for coffee products?

Farmers' cooperative=1, Radio =2, T.V =3, Public meeting =4, other farmers =5, Informal coffee traders= 6, Bulletins=7, none=8

Other, specify……

37. Would you be interested in getting information on market prices and consumer demand?

Yes=1, No=0

38. Does access to market information assist in increasing quantity and quality of cherries delivered to your cooperative?

Yes=1, No=0

39. If the answer is No, explain your answer…….
…….

40. If the answer is yes, would you be willing to pay for the information?

Yes =1, No=0

41. If yes indicate how much you pay per week per lot of information on market prices and demand.

>2500 RwF=1, 5000 RwF =2, 7500 RwF =3, 10000 RwF =4, above 10000 RwF=6

H. Coffee processing and value addition of coffee

42. Do you participate in coffee processing and value addition of coffee?

Yes=1, No=0

43. If No what are the reasons? .....
……
……

44. If yes what coffee products do you make?

1.
2.

45. Who are the other key players involved in coffee processing and value addition?

1.
2.
3.
4.

I. Please list in order of priority, the most important challenges as far as coffee production is concerned: Problem analysis

Do you have any specific problems/challenges related to coffee production that hinders you from undertaking your activities efficiently? List them	What are the causes of the problems you have listed in column 1?	What are the effects of the problems on your coffee production?	What do you think are the possible solutions to these challenges?
1.			
2.			
3.			
4.			

I kindly thank you for your time.

Understanding Wheat Production Constraints in Rwanda

Research Project Report

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Abstract

Wheat is an important food security crop that is used as a raw material to manufacture several wheat based products such as leavened bread, biscuits, cake, porridge, donuts to mention a few. Due to rapid urbanization associated with adoption of western-diets, the demand for wheat-based products has increased tremendously. Although the Government of Rwanda has substantially invested in wheat crop, wheat that is currently produced in Rwanda does not meet local demand for the milling companies. The objectives of the present study were to: 1) assess the contribution of wheat farming to rural farmers' livelihoods, especially those of women, and gender roles, 2) investigate the constraints that hinder wheat farmers from improving the quality and increasing the quantity of their produce, 3) assess the role of post-harvest strategies that can lead to reduction of wheat loss, and 4) identify factors that have been leading to increasing rates of wheat importation into Rwanda.

The study was conducted in Burera and Nyamagabe Districts in the Nothern and Southern Provinces of Rwanda respectively due to their differences in Agro-ecological conditions. Survey questionnaires were administered to 100 wheat farmers in Burera District and 101 wheat farmers in Nyamagabe District whereas one representative from Bakhresa Grain Milling and one from PEMBE Flour Mills were interviewed to understand why they prefer imported wheat.

The results of the study indicate that the contribution of wheat farming to men and women farmers' livelihood in Burera and Nyamagabe Districts is still low. Also, the results show that men are more interested in land preparation, harvesting and threshing whereas women are involved in every step of production. Poor agronomic practices and lack of appropriate agricultural inputs contribute to lower wheat productivity. Lack of proper storage facilities and little use of pesticides were found to be the major causes of postharvest losses. Poor grain quality, insufficient grain produced, and high cost have forced milling companies to import wheat from abroad.

Background and problem statement

The Government of Rwanda considers wheat as a food security crop because it is a source of important nutrients and can be used as a raw material to manufacture a number of wheat-based products such as bread, biscuits, cake, porridge and other local products. The demand for wheat and wheat-based products in Rwanda has been increasing faster than that for any other staple crop, likely because of urbanization that is associated with adoption of western-style diets. The increase in demand for wheat-based products has attracted foreign and local investors to set up commercial wheat flourmills that can mill up to 13,000 metric tons per month (MINICOM[11], 2013). Despite the Government's policies and programs that aim at improving, increasing, and transforming the production of wheat by rural farmers into a high income-generating activity, wheat produced locally still does not meet the local standards for the two commercial wheat milling companies in Rwanda. Therefore, all wheat used by these milling companies is imported from other countries, such as Australia, Brazil, Canada, and Russia, leaving both male and female Rwandan wheat farmers unable to sell their wheat to the commercial mills. Rejection of Rwandan wheat is due to a number of reasons, including high moisture content, high foreign material contamination (impurities), and lack of quality parameter information. Currently, there is no quality data available on wheat production constraints in Rwanda.

Objectives

The objectives of the study were to:

- assess the contribution of wheat farming to rural farmers' livelihoods, especially those of women, and gender roles;
- investigate the constraints that hinder wheat farmers from improving the quality and increasing the quantity of their produce;
- assess the role of post-harvest strategies that can lead to reduction of wheat loss;
- identify factors that have been leading to increasing rates of wheat importation into Rwanda.

Research methodology

This study was conducted in Burera and Nyamagabe districts in the Northern and Southern Provinces of Rwanda, respectively (Fig.1). The districts are located in distinct agro-ecological zones, namely Buberuka Highlands and the Congo-Nile Crest as they are defined by Delepierre (1974). The study also include two commercial wheat-milling companies, namely, Bakhresa Grain Milling Rwanda and Pembe Flour Mills Rwanda. The research used formal survey questionnaires that were administered to 100 wheat farmers in Burera District and 101 farmers in the Nyamagabe District to make a total population sample (N) of 201 individuals and gather both qualitative and quantitative data from that population. Respondents were randomly

[11] MINICOM: Ministry of Trade and Industry

selected from wheat farmers. All four categories of wealth status (*Ubudehe*) were considered during the study. The four categories are defined by the Government of Rwanda as families who do not own a house and can hardly afford basic needs (category 1); those who have a dwelling of their own or are able to rent one but rarely get full time jobs (category 2); those who have a job and farmers who go beyond subsistence farming to produce a surplus which can be sold. The latter also includes those with small and medium enterprises who can provide employment to dozens of people (category 3); and those who own large-scale business, individuals working with international organizations and industries as well as public servants (category 4).

Two representatives of one from Bakhresa Grain Milling Rwanda and another one from Pembe Flour Mills were interviewed to understand the rationale for why they prefer wheat imported from abroad to wheat grown in Rwanda. Collected data were analysed using SPSS[12] software package (SPSS, 2006).

Figure 17. Map of Rwanda showing the surveyed areas

4. Results and Discussions

4.1 *Socio-demographic characteristics*

Socio-demographic data analysed include cooperative membership, gender, age, marital status, education level, occupation and wealth status.

[12] SPSS: Statistical Package for the Social Sciences

4.1.1 Cooperative membership and responsibilities in the cooperatives

From the survey, 65% of the respondents operate within cooperatives, such that 58.4% of them are men and 41.6% are women Female farmers interviewed in the study area are less than men involved in wheat growing cooperatives, while the Rwandan population is reported to be composed of 51.8% women vs. 48.2% men (NISR[13], 2012). Moreover, the study revealed that 7.5% of female and male respondents play important roles in the cooperatives. They are either facilitators, president, secretary, team leader or monitor in the cooperatives. The study also shows that cooperatives are older in Nyamagabe than in Burera, based on the number of experienced members in cooperatives. This may be explained by a long-time support provided by UNICOOPAGI[14], CARITAS GIKONGORO and other partners to farmers cooperatives in Nyamagabe district.

4.1.2 Gender

Men are more involved in wheat production than women in both districts. Male respondents are 60.0% vs. 40.0% female in Burera, whereas men represent 58.4% vs. 41.6% women in Nyamagabe. On average, over both districts there are 59.2% men vs. 40.8% women involved in wheat production This explains the importance of gender role in wheat production in Rwanda.

4.1.3 Age

The study shows that more than 55 years old respondents represent 81.6% in Nyamagabe and 18.4% in Burera. This proportion of aged wheat farmers in Nyamagabe negatively impacts on wheat production in that area. The most active wheat growers aged between 26 and 55 years represent 88.1% in both Burera and Nyamagabe districts.

4.1.4 Marital status

The majority of wheat growers in both districts are married and they represent 88.6%. This is an indicator that wheat production is an agricultural activity undertaken mostly by mature people in both districts.

4.1.5 Education level

The percentage of 71.6% comprising 63.2% who have a primary education level and 18.4% illiterate among respondents indicates that the education level of wheat farmers in both districts is low. This implies a lower level of utilization of recommended crop and postharvest

[13] NISR: National Institute of Statistics of Rwanda
[14] UNICOOPAGI: Union des Coopératives de Gikongoro

management practices, due to lack of comprehension of printed materials, and subsequently poses and subsequently a challenge to wheat productivity increase in those areas.

4.1.6 Wealth status

The majority of respondents in both districts are those ones classified in category 2 of wealth status. They represent 52.2% in Nyamagabe against 47.8% in Burera. This category is formed of households' families that have a dwelling of their own or are able to rent one but rarely get full time jobs. This implies that more effort from researchers, policy-makers and other wheat stakeholders should focus on this particular group of population in a bid to increase wheat production in Rwanda.

4.2 Wheat production systems

Various parameters involved in wheat production in the targeted areas include among others mass mobilization, status of wheat farming before joining the cooperative, change from cooperative membership, wheat farming experience, dependence of wheat production on precipitation, fertilizer use and types, source of seed, pesticide use, importance of using agro-inputs, grain yield, uses of wheat produce, grain quality testing, marketing and constraints to wheat farming.

4.2.1 Mass mobilization

The study revealed that high sensitization by cooperative leaders was found in Nyamagabe (63%) vs. 37% in Burera. Other sensitization mechanisms through friends, mass media and cooperative members were also used but at lower levels. This indicates that extension services are still much more needed in the target areas through different extension materials such as radios, televisions, pamphlets, open and field days and workshops.

4.2.2 Status of wheat farming before joining the cooperative

Over the two districts, a high percentage (92.3%) of respondents confirmed that they had grown wheat even before they became cooperative members, indicating that wheat has been grow in both district by individual farmers.

4.2.3 Change from cooperative membership

A total of 86.7% respondents from both districts realized that there was a positive in wheat production since they have worked together as cooperatives. This portion of respondents represents 42.3% in Burera and 57.7% in Nyamagabe. This shows the role played by wheat cooperatives in increasing yield and generating more income from wheat.

4.2.4 Wheat farming experience

60% of Nyamagabe wheat farmers are more experienced in wheat production than in Burera (40%). This shows that wheat has been adopted for a long time in Nyamagabe.

4.2.5 Dependence on precipitation/rainfall

Wheat varieties currently grown in Rwanda are rain-fed varieties. This was confirmed by 91% of respondents from both districts. There are no irrigated wheat varieties in Rwanda's wheat farming.

4.2.6 Fertilizer use and types

The majority (96%) of respondents confirmed to have applied fertilizers in their wheat fields, implying the awareness on the importance of using fertilizers in improving wheat production.
The organic (farmyard) manure is the most applied by the wheat farmers (Table1). Unfortunately, less than a half of respondents apply organic manure, DAP[3] and urea in their farms. Otherwise, a good number of wheat farmers do not apply fertilizers and therefore do not expect to obtain good grain yields. More awareness on fertilizer use is needed in the target areas.

Table 2. Types of fertilizers

Different types of fertilisers	Responses
Farm yard	38.0%
NPK[15]	3.4%
DAP[3]	31.0%
Urea	27.6%

4.2.7 Source of seed

The majority (64.3%) of wheat farmers in Burera get seed from local markets, while the majority (59.4%) of wheat farmers in Nyamagabe get seed from RAB[16]. In the average and over the two districts, most of the farmers (53.7%) use farmer-saved seed or seed from previous harvest. This suggests that wheat farmers really need quality seed from specialized seed producers or seed companies, at affordable prices.

4.2.8 Pesticide use

Results from the study show that 57.2% of respondents in both districts utilize pesticides. Among them, 67.3% apply supermethrin (insecticide) in the fields to control pest insects (Table 2), while 26.5% utilize other chemicals than dithane or ridomil.

[15] NPK: Nitrogen, Phosphate, Potassium
[16] RAB: Rwanda Agriculture Board

Table 3. Types of pesticides sprayed

Types of pesticides used	Responses
Dithane	4.4%
Ridomil	1.8%
Supermethrin	67.3%
Other	26.5%
Total	100.0%

4.2.9 Importance of agro-inputs

The study showed that 98.9% of respondents realize the changes caused by the use of agricultural inputs such as quality seed, fertilizers and pesticides. Many of the respondents (79.6%) revealed that the use of improved inputs contribute to the grain yield increase in both districts.

4.2.10 Grain yield

Data revealed that yield obtained in the previous season varies from 0.12 to 8 tons/ha. Moreover, a set of 79.5% of respondents produced three and less than three tonnes per hectare (≤ 3.0 t/ha) last season. This implies how much wheat farmers are small scale in the target areas of Rwanda.

4.2.11 Uses of wheat produce

The major uses of wheat are for human household consumption (porridge, ugali and boiled grain) and for selling in the local market to generate household income (Table 3). Rwanda wheat is thus grown for home food and/or for income generation.

Table 4. Uses of wheat

Use of wheat by producers	Responses
Human consumption	46.0%
Animal feeding	1.5%
Market	44.5%
Other	8.0%

4.2.12 Grain quality tests

A good number of respondents representing 57.5% do quality testing, namely, grain hardness. They use a fingernail or teeth to check if the grain is adequately dry or gets a desirable moisture content. This indicates that many farmers need more education of practical technology on how to test wheat quality.

Marketing

Generally, a bigger number of farmers (82.6%) do not sell the production to the market because low yields. The grain produced is either consumed at home or used for gifts to friends, relatives and neighbours during special events or as a social assistance. This is the real case of subsistence agriculture. That is emphasized that 93.5% of respondents do not know the millers.

4.2.14 Constraints to wheat farming systems

Two major challenges revealed by the majority of respondents include unavailability of fertilizers and improved seeds (Table 4).

Table 5. Challenges to wheat production

Wheat farming constraints	Responses
Land ownership	6.7%
Availability of pesticides	12.4%
Poor agricultural tools & equipment	2.0%
Soil fertility	11.2%
Availability of improved seeds	19.2%
Availability of fertilizers	25.9%
High input price	10.7%
Availability of credit services	2.7%
Crop storage and preservation	1.7%
Market information	6.7%
High transport costs	0.7%
Total	100.0%

4.3 Postharvest handling practices

Parameters studied during the survey include source of motivation, farming diversification, harvesting techniques, storage facilities, marketing strategies and incentives from the Government of Rwanda.

4.3.1 Source of motivation

In both districts, the majority of farmers (43.2%) showed that they are motivated by high grain yields (Table 5).

Table 6. Source of motivation for wheat production

Motivation for wheat production	Responses
High yield	43.2%
High demand for wheat	17.0%
Wheat quality	19.0%

Location of land	13.0%
Other	7.8%
Total	100.0%

4.3.2 Farming diversification

The study indicates that 99% of respondents do not grow wheat only. They rotate it with other crops or mix wheat with other crops in the same field (intercropping system), targeting all the chances of harvesting something in case one or another crop gets spoiled by natural hazards (risk reduction).

4.3.3 Harvesting techniques

Over both districts, wheat harvesting is done by hand for 98.0% of respondents. There is no harvesting machinery to reduce the drudgery. Subsequently, damages caused in grain sorting are reported by 95.5% respondents. Therefore, grain quality will be affected, which is reducing the price and income from wheat.

4.3.4 Storage facilities

The overall, 75.1% of respondents over the two districts say they do not have collection centres. This is a challenge for threshing, winnowing, drying and grain packaging. Grain storage in plastic bags is a technology widely adopted by 91.5% of respondents (Table 6).

Table 7. Storage facility of wheat grain

Storage of wheat grain Nyamagabe and Burera	Responses
Plastic bags	91.5%
Free air room	0.5%
Baskets	4.7%
Other	3.3%
Total	100.0%

Moreover, appropriate storage conditions (light, moisture, temperature,..) are taken into consideration by 93.5% of the farmers interviewed. Additionally, 87.0% of farmers reported to not have storehouses in their respective regions.

4.3.5 Marketing strategies

The majority of respondents representing 59.8% takes the production to the market

(Table 7).

Table 8. Wheat marketing strategies

Strategies for marking wheat	Responses
Phone calls	10.2%
Inform regular customers	25.4%
Take it to the market	59.8%
Other	4.5%
Total	100.0%

The local market is usually supplied by between 73.3% and 77.8% of respondents. Many farmers representing 97.5% do not have collaboration with millers to purchase their wheat grain.

4.3.6 Incentives to the farmers

The 62.2% of farmers have been receiving incentives vs. 37.8% who have been growing wheat with no incentive. The incentive provided is composed of seed for 17.8% and fertilizers for 19.9% of farmers interviewed.

4.4 Wheat milling companies operating in Rwanda

Bahkresa Grain Milling Rwanda (BGM) is located in Kigali City, Gasabo District in Rusororo Sector, at 1,511 meter above sea level (masl); $01^{0}37$'South Latitude and $030^{0}56$'East Longitude. The company has been running for about 4 years. The factory can process 300 metric tons of grain per day and by 2030 it will be able to process 500 metric tons of grain per day. Pembe Flour Mills Rwanda is located in Northern Province, Gicumbi District, Byumba Sector, at 2,189 masl; $01^{0}59$'South Latitude and $030^{0}04$'East Longitude. The milling factory has operated since January 2006. Pembe factory can now process up to 200 metric tons of grain per day. Both milling companies import hard and soft wheat grains from Russia, Brazil, Canada and elsewhere. The factories do not mill Rwandan wheat because the wheat quality locally-produced is lower, and therefore does not fulfil the factories' requirements. Therefore, local wheat is rather used for making porridge, chapattis, mandazi, biscuits, cakes, doughnuts, or for blending with higher quality wheat (Figure 2). As a results, the two large commercial wheat mills in Rwanda cannot use domestic production, and thus they are obliged to import grain from abroad (USAID[17], 2013).

[17] USAID: United States Agency for International Development

Figure 18. Porridge preparation (left), cooking mandazi (middle) and mandazi ready for consumption (right)

In 2013, the two companies in collaboration with many other wheat stakeholders including the Ministry of Trade and Industry (MINICOM) initiated the campaign to strengthening the networking for improving wheat value chains in Rwanda. The campaign aimed at helping farmers improve crop management and postharvest handling practices, increase productivity and income of poor households' families.

Unfortunately, the campaign has been challenged by insufficient amounts of improved varieties' seeds, lack of threshing and winnowing machines for wheat during harvest, insufficient or inadequate storage facilities, drought in some areas which has reduced significant expected production, and sales of all wheat to the local market at higher prices than millers can afford given short supply and high demand.

Conclusion and recommendations

Results from the study allow to conclude that:

The contribution of wheat farming to rural farmers' livelihoods is still little, because wheat farming is only a means of subsistence for both women and men. Women are a little bit more involved in wheat production because statistically they are many more than men in the country. In terms of gender roles, men are more interested in land preparation, harvesting and hand-threshing using sticks, whereas women are involved in every step of wheat production;

The constraints that hinder wheat farmers from improving the quality and increasing the quantity of their produce include lower education level, lack of appropriate varieties and fertilizer types at the right planting time, manual labour, high input prices, lack of pesticides, soil infertility and absence of or weak linkages among all wheat stakeholders, among others;

Poor post-harvest strategies significantly contribute to the increase of wheat loss in the fields or in the stores, because of the inexistence of machinery in wheat production, lack of appropriate storage facilities and little use of pesticides;

The factors that lead to increasing rates of wheat importation into Rwanda include among others poor grain quality, little amount of grains produced, competition with local markets which pay more than the millers do, etc.

From this study, it is recommended that

Education level for wheat farmers should be increased through formal education and trainings in agricultural production;

Appropriate agricultural inputs including machinery, seed, fertilizers, pesticides, should be availed at affordable prices; and

Strong linkages should be sustainably established among wheat stakeholders, as the role played by each actor well defined. The innovation platforms would be a better option to strengthen the linkages.

POSSIBLE FUNDERS FOR FUTURE RESEARCH

Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA)
Forum for Agricultural Research in Africa (FARA)
United States Agency for International Development (USAID)
Ministry of Agriculture and Animal Resources-Rwanda
Ministry of Trade and Industry- Rwanda

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NISR.2012. **2012 Population and Housing Census. National Institute of Statistics of Rwanda, Kigali, Rwanda**

USAID. 2013**. Rwanda cross-border agricultural trade analysis. United Nations Agency for International Development. Enabling Agricultural Trade (EAT) project, Kigali, Rwanda.**

Appendices
Letter requesting to conduct research in Burera District
Letter requesting to conduct research in Nyamagabe District
Questionnaires for cooperative members and wheat milling factories

Appendix 1. Letter requesting to conduct research in Burera District

REPUBLIC OF RWANDA

NATIONAL INDUSTRIAL RESEARCH AND DEVELOPMENT AGENCY (NIRDA)
P.O.BOX 273 KIGALI

The Mayor of Burera District
Northern Province

January 26th 2015

Dear Mayor,

Re: Request to conduct survey on wheat crop

Wheat is one of the eight main crops under Crop Intensification program (CIP) in Burera District, Northern Province. Burera District is also one of the eleven Districts in Rwanda where wheat is grown on a large scale.

A team of scientists from University of Rwanda, National Industrial Research and development Agency, Rwanda Agriculture Board wants to conduct survey on wheat crop in Burera District. I am therefore writing to kindly request for an authorization to carry out the survey on wheat agricultural practices in Burera District, especially in Bungwe, Butaro, Cyanika, Gahunga, Gatebe, Kagogo, Kinyababa, Kivuye, Nemba, Rugarama, Ruhunde, Rusarabuye and Rwerere. The survey will be conducted from February 16th to 20th 2015. Data collected will be analyzed and results will be shared with all stakeholders and will be solely used to make decisions on how to improve wheat productivity.

Yours Sincerely,

George Nyombaire, Ph.D.
Principal Investigator

Appendix 2. Letter requesting to conduct research in Nyamagabe District

REPUBLIC OF RWANDA

RWANDA AGRICULTURE BOARD (RAB)
Southern Agriculture Zone Division

The Mayor of Nyamagabe District
Southern Province

February 12th, 2015

Dear Mayor

RE: Request to conduct survey on wheat crop

Wheat is one of the main crops under Crop Intensification Program (CIP) in Nyamagabe District, Southern Province. Nyamagabe District is also one of the eleven Districts in Rwanda where wheat is grown.

A team of scientists from Rwanda Agriculture Board (RAB), University of Rwanda (UR) and National Industrial Research and Development Agency wants to conduct survey on wheat crop in Nyamagabe District. I am therefore writing to kindly request for an authorization to carry out the survey on wheat agricultural practices in Nyamagabe District, especially in Buruhukiro, Gasaka, Gatare, Kaduha, Kibirizi, Kitabi, Musebeya, Mushubi, Tare and Uwinkingi. The survey will be conducted from February 16th to 20th 2015. Data collected will be analyzed and results will be shared with all stakeholders and will be solely used to make decisions on how to improve wheat productivity.

Yours sincerely,

UWIMANA Gaspard
Head of Southern Agriculture Zone Division

Appendix 3. Questionnaires for cooperative members and wheat milling factories

QUESTIONNAIRE FOR COOPERATIVE MEMBER

Title of the study: Understanding Wheat Production Constraints in Rwanda
District: ……
Sector: ……..……..
Cell: ……..…….
Village: …….
Name of cooperative: ……
Name of respondent: ……
Position of the respondent: …….
Geographical coordinates:

Latitude (decimal degrees): **N S**
Longitude (decimal degrees): **E W**

			.						
			.						

Elevation: _____meters

Introduction: To be read to the potential respondent by enumerator
Hello,
My name is…… I am …… (job) from ……. We are conducting a survey on **Understanding Wheat Production Constraints in Rwanda**. In this context, your cooperative has been selected to take part in this exercise and we really need your participation. Your name will not be shared with anyone in association with the responses you provide. This means that your responses will be totally confidential.

Name of the Enumerator: …….

Signature of the Enumerator…….

Date: _____/_____/_____
Day/ Month/ Year

SECTION 1: SOCIO-DEMOGRAPHIC QUESTIONS			
No.	**Questions**	**Coding Categories**	**Code**
Q101	Respondent's gender	Male Female	| _|
Q102	What is your age?	Less than 25 years 26-35	| _|

		36-55 years More than 55 years	
Q103	What is your marital status?	Single Married Widowed Divorced Other_____	| _|
Q104	What is your education level?	No formal education Primary Secondary University Other (specify)_____ `	| _|
Q105	What is your occupation in your cooperative?	Member only Member and worker Other (specify)_____	| _|
Q106	How many years have you been a member in the cooperative?	Number:…….	| _|
Q107	[18]In what *Ubudehe* category is your household?	Category 1 Category 2 Category 3 Category 4	| _|

SECTION 2: QUESTIONS RELATED TO WHEAT PRODUCTION IN RWANDA			
Q201	How did you become a member of your wheat-farming cooperative?	1. Sensitized by my friend 2. Sensitized by mass media 3. Sensitized by a cooperative member 4. Sensitized by a cooperative leader	| _|

- [18] **Category 1:** Families who do not own a house and can hardly afford basic needs.
- **Category 2:** Those who have a dwelling of their own or are able to rent one but rarely get full time jobs.
- **Category 3:** Those who have a job and farmers who go beyond subsistence farming to produce a surplus which can be sold. The latter also includes those with small and medium enterprises who can provide employment to dozens of people.
- **Category 4:** Those who own large-scale business, individuals working with international organizations and industrie as well as public servants.

		5. Other (specify)……	
Q202	Did you have any wheat farm(s) before joining the cooperative?	1. Yes 2. No	| _|
Q203	Since joining the cooperative, what has happened to your farm production?	1. Increased 2. Decreased 3. No change 4. Do not know	| _|
Q204	How many years of experience do you have in wheat farming?	Less than one year 1-5 years 6-10 years 11-15 years 16-20 years More than 20 years	| _|
Q205	Does your production process entirely depend on precipitation?	Yes No	| _|
Q206	Do you add any fertilizers to your wheat field?	Yes No	| _|
Q207	Which ones?	Farmyard NPK DAP Urea	| _|
Q208	Where do you get seeds for sowing?	1. Previous harvest 2. RAB representatives 3. Local markets 4. Other (specify)……	| _|
Q209	After harvesting mature wheat grains, do you reserve seeds for sowing the following season?	Yes No	| _|
Q210	Do you use pesticides to control diseases and pests on your wheat farm(s)?	1. Yes 2. No	| _|
Q211	If yes, which ones?	Dithane Ridomil Supermethrin Others	| _|
Q212	Can you say that the application of fertilizers, pesticides and use of improved seeds (if you ever used any of these things) brought any change to your production?	Yes (specify)…….. No Not sure	| _|

Q213	What quantity (kg) of wheat did you harvest last year?	Number……..	| _|
Q214	What do you do with the wheat harvested?	Human consumption Animal feeding Marketing Others	
Q215	What kind of test or tests of wheat quality do you run before marketing your produce?	1. Wheat hardness 2. Protein content 3. Protein quality 4. Mold, damaged grain, and odour 5. Moisture content 6. Specific weight of grain 7. Falling number 8. All of the above 9. None of the above 10. Other (specify)……..	| _|
Q216	Do you sell all your output on the market?	1. Yes 2. No 3. Not sure	| _|
Q217	Have you ever sold your produce to any commercial wheat milling company in Rwanda?	1. Yes 2. No 3. Not sure	| _|
Q218	If yes, does the price offered by the company in question #217 differ from that offered by other individuals in the wheat milling business?	1. Yes 2. No 3. Not sure	| _|
Q219	Who pays more?	Commercial milling company Individuals in the milling business	| _|
Q220	Does the income you get from wheat production contribute to cover your basic home needs?	1. Yes 2. No 3. Not sure	| _|
Q221	Did you receive any training related to wheat production?	1. Yes 2. No 3. Not sure	| _|
Q222	Among the following wheat farming problems, state which is/are of more concern to you (maximum 3)?	Land ownership Availability of pesticides Poor agricultural tools & equipment Soil fertility Availability of improved seeds Availability of fertilizers High input price	| _|

		Availability of credit services Crop storage and preservation Market information High transport costs Pests and diseases Land availability Lack of non-agricultural income Lack of training	
SECTION 3: QUESTIONS RELATED TO POST-HARVEST			
Q301	What motivated you to practice wheat farming?	1. High yield 2. High demand for wheat 3. Wheat quality 4. Location of land 5. All of the above 6. Other (specify)……	| _|
Q302	Have you diversified your farming activities or do you produce only wheat?	1. Diversified 2. Only wheat 3. Not sure	| _|
Q303	How do you know when wheat has reached the stage of maturity for harvesting?	1. Time passed after sowing 2. Specific moisture content 3. Panicles are bent with their weight 4. Golden yellow hulls 5. All of the above 6. Other (specify)…….	| _|
Q304	What methods do you use for harvesting?	1. Hand 2. Machine 3. Both 4. None 5. Other (specify)…….	| _|
Q305	How do you sort damaged wheat kernels from undamaged ones?	1. By hand 2. Using an animal 3. Using a vehicle 4. Using motorized equipment 5. All of the above 6. None of the above 7. Other (specify)…….	| _|
Q306	Do you have wheat collection centers?	1. Yes 2. No 3. Not sure	| _|
Q307	How do you store your wheat harvest?	1. Common cooperative storage 2. Home storage 3. Local storage 4. Farm storage	| _|

		5. All of the above 6. None of the above 7. Other (specify)…….	
Q308	Do you consider the conditions at which wheat has to be stored?	1. Yes 2. No 3. Not sure	| _|
Q309	What materials do you use in storing the produce wheat?	1. Plastic bags 2. Free air room 3. Baskets 4. All of the above 5. None of the above 6. Other (specify)…….	| _|
Q310	Are there any storehouses in which you store your produce?	1. Yes 2. No 3. Not sure	| _|
Q311	What strategies do you use for marketing your harvest?	1. Mass media 2. Phone calls 3. Inform regular customers 4. Take it to the market 5. All of the above 6. Other (specify)	| _|
Q312	Who buys your harvest?	1. Local markets 2. Industry 3. Cooperative 4. None of these 5. Others (specify)……..	| _|
Q313	Do you have any kind of sound collaboration with wheat milling companies found in Rwanda? If yes, which ones?	1. Yes (specify)…… 2. No 3. Not sure	| _|
Q314	Are there any incentives that you get from the government to grow wheat?	1. Yes (specify)…… 2. No 3. Not sure	| _|

End the interview and thank respondent for his/her time.

QUESTIONAIRE FOR WHEAT MILLING FACTORIES

Title of the study: ***Understanding Wheat Production Constraints in Rwanda***

District: ……

Sector: ……..……..

Cell: ……..…….

Village: …….

Name of cooperative: ……

Name of respondent: ……
Position of the respondent: …….
Geographical coordinates:

Latitude (decimal degrees): **N S**
Longitude (decimal degrees): **E W**

			.						
			.						

Elevation: _____meters

Introduction: To be read to the potential respondent by enumerator

Hello,
My name is…… I am …… (job) from ……. We are conducting a survey on **Understanding Wheat Production Constraints in Rwanda**. In this context, your milling factory has been selected to take part in this exercise and we really need your participation. Your name will not be shared with anyone, meaning that your responses will be totally confidential.
Name of the Enumerator: …….
Signature of the Enumerator……..
Date: _____/_____/_____
Day/ Month/ Year

SECTION 1: SOCIO-DEMOGRAPHIC QUESTIONS			
No.	**Questions**	**Coding Categories**	**Code**
Q101	Respondent's gender	1. Male 2. Female	| _|
Q102	What is your age?	1. Less than 25 years 2. 26-35 3. 36-55 years 4. More than 55 years	| _|
Q103	What is your marital status?	1. Single 2. Married 3. Widowed 4. Divorced 5. Other_____	| _|
Q104	What is your education level?	1. No formal education 2. Primary 3. Secondary 4. University 5. Other (specify)_____	| _|
Q105	What is your occupation in your industry?	1. Manager 2. Technician 3. Director 4. Other (specify)_____	| _|
Q106	How many years of milling experience do you have?	Number:…….	| _|
SECTION 2: QUESTIONS RELATED TO MILLING FACTORIES			
Q201	How many tons of wheat grain do you process per day?	1. Less than 1 ton 2. Between 1 and 5 tons 3. Between 6 and 10 tons 4. More than 10 tons 5. Not sure	| _|
Q202	What type of wheat do you process?	Hard Soft Durum Other (Specify)	| _|
Q203	Where do you buy wheat for processing?	1. In Rwanda 2. Outside Rwanda (specify) …….	| _|

Q204	Do you mill Rwandan wheat?	1. Yes 2. No 3. Not sure	| _|
Q205	Is there any difference between Rwandan wheat and wheat from outside the country in terms of quality?	1. Yes (specify)…….. 2. No 3. Not sure	| _|
Q206	Do you help Rwandan farmers to practice postharvest strategies aimed at maintaining harvested grain quality?	1. Yes (specify)…… 2. No	| _|

End the interview and thank respondent for his/her time.

COLLEGE OF AGRICULTURE, ANIMAL SCIENCES AND VETERINARY MEDICINE

Project Title: Assessing livestock feeds and feeding systems in Rwanda.

Research Team:
University of Rwanda:
Dr. Karege CALLIXTE, Dept. of Animal Production
Dr Solange UWITUZE, Dept. of Animal Production
Mr. Eric HATUNGIMANA, Dept. of Animal Production
Dr. John NGABITSINZE, Dept. of Agricultural Economics
Issa NKURUNZIZA, Dept. of Agricultural Economics
Sandrine URUJENI, Dept. of Agricultural Economics

Michigan State University:
Prof. Joshi Nanda, Animal Science

Project Summary

According to the Rwandan Vision 2020, the livestock sub-sector, will plays a key role in the socio-economic development of the country, as a provider of food, employment; possible to be a major contributor to the government's strategy for poverty eradication and improving peoples; welfare. However, there are constraints limiting livestock production, especially dairy production.

Government reports have highlighted feeding and nutrition as the major constraint in animal production systems in Rwanda. Poor animal nutrition, both in quantity and quality, is due to shortage of farming land, lack of commercial feeds, limited use of agricultural by-products and seasonal water availability.

It was projected to undertake a research study to assess livestock feeds and feeding systems and pathways to improve dairy production and dairy farmers' income in Rwanda. This research study was to be conducted in five phases. The present report is concerned with *phase one;* which was a survey study on feed availability and feeding practices. Complementary phases will be developed later.

The main objective of the study was to assess dairy feeds availability. Knowing the availability of feeds could help not only to lower the cost of feeds, but also to increase milk production, lessen the seasonal fluctuation of production, help dairy farmers to increase their productivity and hence, their income.

I. Introduction

Rwanda's Vision 2020 envisages the country as a middle-income economy with a per capita income of US$ 900 by 2020. Agriculture is the key sectors of the economy. It is the backbone and a major component of the economy, employing about 80% of the working population, contributing over 32% of the national GDP, generating about 80% of total export revenues and providing 90 percent of the country‘s food needs.

The Strategic Plan for Agricultural Transformation in Rwanda –Phase II (PSTA II) which covers the four year period 2009-2012, has an overall objective to rapidly increase agricultural output and incomes under sustainable production systems and for all groups of farmers, and ensure food security for all the population. One of the main programmes of this plan is the improvement of dairy production. The Government of Rwanda has adopted a national dairy development policy of income generation and food security for poor families, especially through the program Girinka (One cow per poor family). As a result, the population of animals has greatly increased as did milk production.

However, Rwanda is still among the developing countries with the lowest per capita consumption of milk. It is reported that in 2009, 23% of children in the country were underweight; 45% of them suffered from moderate malnutrition; and 19% were severely malnourished. At the same time Trade Indicators from the Global Trade Map showed that the value of imports of livestock and animal products has been increasing consistently for more than a decade. Although current official projection affirms the contrary, Trends analysis of trade strongly suggests that the value of Rwanda’s imports of dairy products alone is likely to outpace timelines stipulated in Vision 2020; unless production of milk from local resources increased sufficiently fast to offset the apparent demand-supply gaps.[19]

According to Rwanda Agricultural Board (RAB), the major constraints to livestock production in Rwanda are associated with low producing breeds; limited land for quality feed production; limited capacity for rational utilization of crop residues and agro-industrial by-products; and limited capacity of poor farmers to access cost effective disease control practices.

II. Project Problem and Outputs:

Feeding and nutrition are considered to be the major constraint in animal production systems. This is the case in Rwanda, where dairy production is constrained by poor animal nutrition, both in quantity and quality, as a result of shortage of farming land, insufficient and non controlled commercial feeds, limited use of agricultural by-products and unreliable water availability (MINAGRI-**National Dairy Strategy**[20]).

Comparing the genetic potential and feeds availability impact on the level of dairy cattle production; it has been reported that the contribution in milk production due to genetic factors of animal is only about 25%, a greater sustainability of production being related to better feeding.

[19] Rwanda Agricultural Board: Overview of research (http://www.rab.gov.rw/spip.php?article8)

[20] Ministry of Agriculture and Animal Husbandry (MINAGRI-April 2013): **National Dairy Strategy**.

In intensive production systems, the cost of feeding dairy cattle accounts up to 60% of the total cost of milk production. When raising highly producing dairy cattle, as it is the trend in Rwanda, feeds rich in energy and protein are the most essential components of their ration. These components are often the critical limiting factors to animal production when pasture is the major source of feed, and particularly during the long dry season, when feeds that are available at this time are of poor quality. In Rwanda, it is estimated that milk production falls by as much as 60% during the dry season.

Research leading to the adoption of improved feeding technologies to ensure the availability of sufficient amounts of feeds both in quantity and quality, with an approach which link crops, livestock and agro-processing industries, will help to lower the cost of feeds, while at the same time increase production of milk, lessen the seasonal fluctuation of production, leading to increased productivity and income of the dairy farmers.

The following output was expected from this research project.

At the end of the research project, the availability of feeds (forages, crop residues, agro-industrial by-products and non-conventional feed resources) throughout the year has been identified, the extent of surpluses or feed deficit were determined, related to the requirements of the animal across the year;

once the available resources well documented, strategies to cope with feed shortage will be proposed:

Increased feed production (multipurpose pastures, tree legumes, development of new feeding systems using agro-processing industries, industrial by-products…);

Feed conservation technologies will be identified (silage, hay making, concentrated feeds preparation using mostly available products…)

Strategic supplementation for milk production (especially during critical periods) will be proposed, and farmers will be trained in methods to balance rations using mostly locally available feeds.

III. Description of the Project Research Methodology

The whole study is projected to have five phases. However, the first phase including a survey study on feed availability and feeding practices at the farm level was executed.

Study Area.

The survey study has been conducted in the four main basins of milk production in Rwanda (Umutara, Gishwati, Kigali and Nyanza).

Methodology

2.1. Feed Resources and Feeding Systems.

Data on the availability of feeds (forages, crop residues, agro-industrial by-products and non-conventional feed resources…) and how those feeds are used by dairy farmers

throughout the year were not available before the study. Therefore, a survey on the current feeding practices in dairy farming has been conducted in the four main basin of milk production in Rwanda (Umutara, Gishwati, Kigali, and Nyanza), using a survey questionnaire.

Based on the distribution of cattle in the milk production zone, a sample size of at least 100 households per zone with five or more cattle has been selected for the study, except in Nyanza zone whereby most of dairy farmers have less than five cattle. Purposive and systematic sampling has been used to select the sample size in the whole zone. Before starting collecting data from the field, enumerators had to meet the district livestock officers and were provided with list of dairy farmers. A structured questionnaire was used to elicit data, dealing with general information on the farm in first section and, in the second one, on the feeding system, the type and quantity of feeds available and used on the farm. The information from the survey was an attempt to establish a "Year-round fodder calendar" for each of the four regions.

Collected general information on farm: The study was interested on the following variables; farm sizes, herd sizes, gender (male and female-managed farms), animal genetics, animal health, dairy farming experience, average milk production per cow per day, school education of farmers, dairy farming as main activity or other activity, prices of milk and milk products etc ...

Feeds and Feeding practices section was designed to inform on feeds availability and feeding systems, forages production (cultivated surface…), forage conservation (if the technology is known, and if used…), use of industrial by-products, use of crop residues, use of domestic wastes, the use of concentrates …

"Year round Fodder Calendar": One of the outcomes of the survey could be to record "**Fodder calendar**" for each of the surveyed regions that could include what are the forages, fodder, concentrates, byproducts available in the region that farmers give to their dairy cows in each of the months. This would add to understand the variability in the feeding practices based on availability in wet and dry season.

Data Analysis

Data collected from the survey studies were analyzed with SPSS. Tabulation, correlation techniques were used to relate the major features of livestock feeding systems and milk production levels in the targeted areas.

IV. Results and Discussions

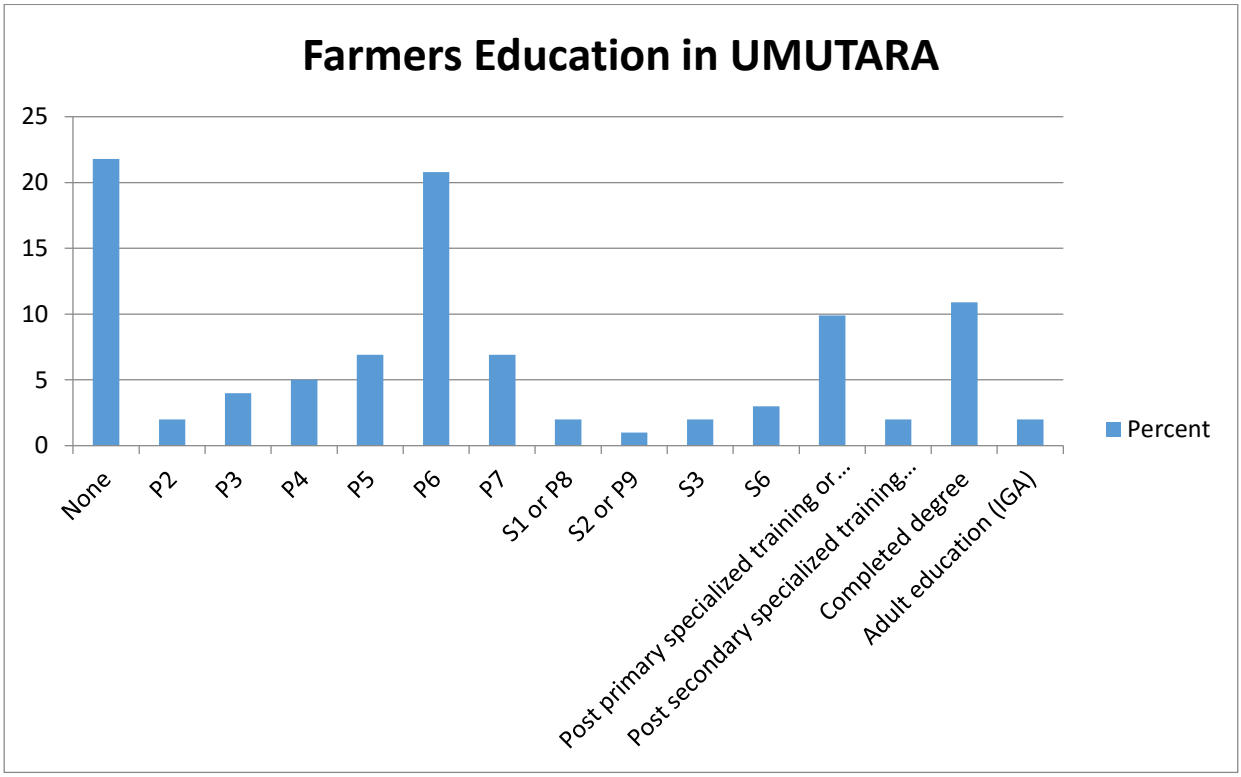
The results presented below are just a preliminary look at the major findings of the study. Deeper report will be presented later.

4.1. Identification of Dairy Farmers

Considering gender classification, the majority of dairy farmers in the different zones are males. It was observed as an example that in Umutara zone, 72.3% of respondents were males and 27.7% females. Their level of education is low, since in the same zone, 21.8% of respondents were illiterate whereas 45.6% attended primary school. This result is in accordance with the social habit of the population in Umutara; since they value livestock keeping compared

to going to school. However, the trend in kigali zone is slightly different since relatively important number of farmers attended secondary school.

Farmers Education Level Information in Umutara Zone



Source: Primary source, 2015

4.2. Dairy Cattle Population

The survey indicated that, considering cattle repartition according to breed and sexual type in the different zone, cross breeds are predominant than other breeds. This is in contradiction with results which indicated that many farmers in Rwanda keep predominantly Ankole cattle. This contradiction is an indication of a shift in farmers mentality who are now convinced that crossbreed have a higher milk production compared to local breed.

4.3. Feeds and Feeding Systems

4.3.1. Grazing

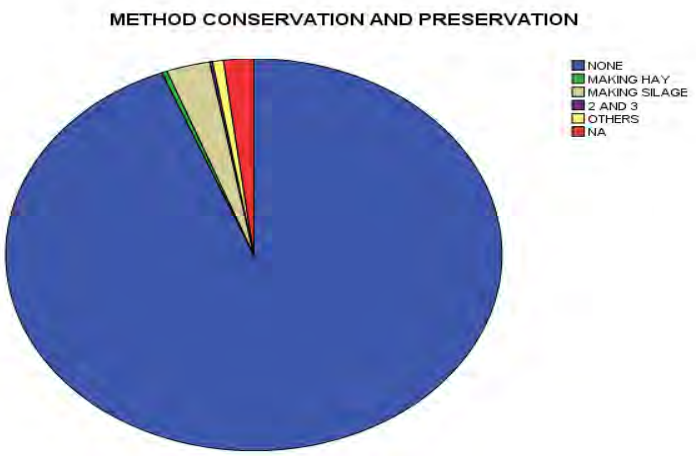
Although grazing represents almost the unique way of feeding dairy cattle, it has been noticed that the hard months to pass over are July and August, in which farmers continue to graze their animals despite the very low availability of forage and their low nutritive value due to the dry season. In Gishwati and Umutara zones, some farmers move their animals to the natural

forest (Kugishisha) to search for forage for their cattle. Due to this harsh condition, farmers reported a decrease in the level of milk production, an increase of abortion and death for vulnerable animals such as born calves, diseased cattle.

4.3.2. Forage Conservation and Preservation

Despite the difficulties of feeding their animals especially during the dry season, the vast majority of farmers interviewed in the four zones do not practice forage conservation. The graphic below represent the methods of conservation and preservation of forage used in Umutara zone.

Method of conservation and preservation used by farmers in Umutara Zone



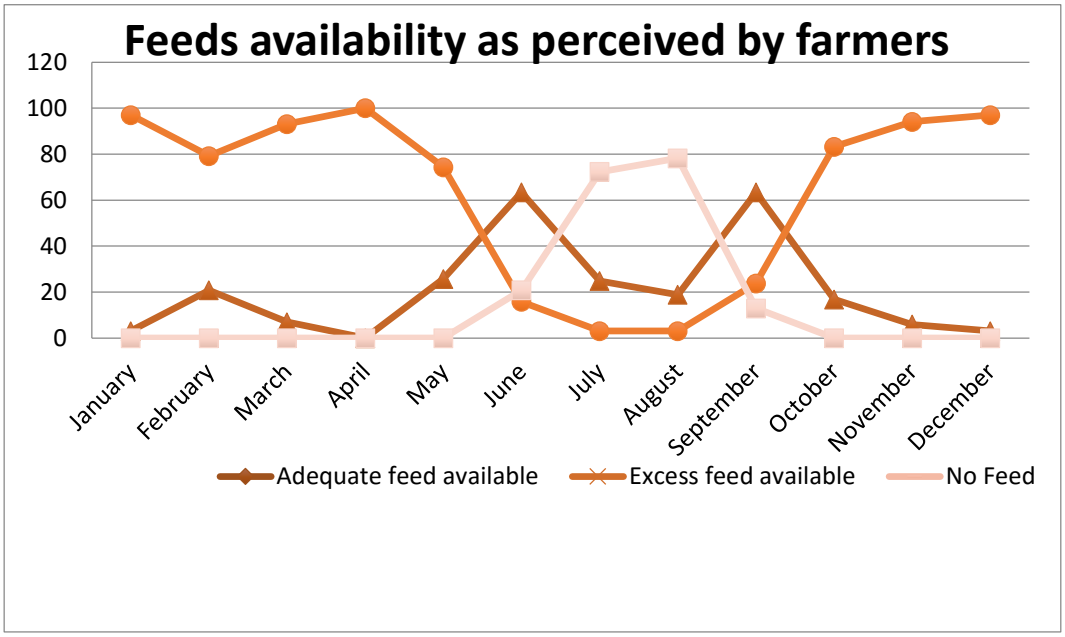
Source: Primary source, 2015

However, it was observed that silage making is being introduced slowly since a relatively important minority of farmers has introduced silage making on their farms.
This observation agrees with findings in the different zones of the country, where conserved feeds (silage and hay) had the lowest ranking within the common feed resource inventory in smallholder dairy households.

This is a big issue, considering the shift in mentality noticed in the study and the policy of the government encouraging farmers to raise highly milk producing animals (crossbreeds or pure breeds). Indeed, those animals have a high feeds requirement to be able to express their genetic potential, and can hardly sustain those hard feeding conditions.

4.3.3. Feeds Availability

Perception of Farmers on Feeds Availability over the year.

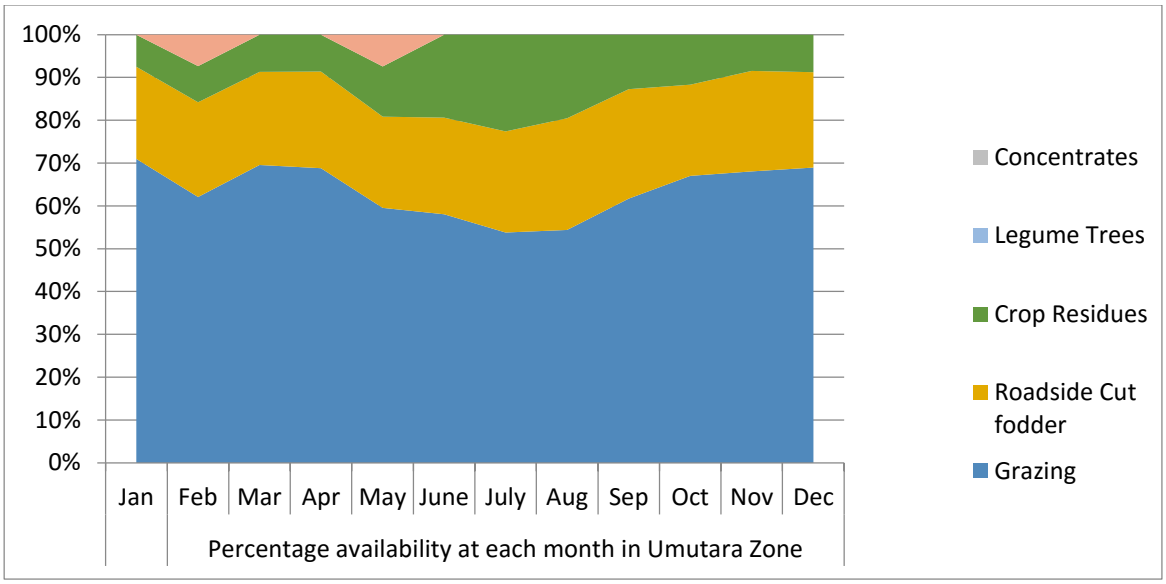


Source: Primary source, 2015

Figure above indicates the farmer's perception of the feeds availability over a year, classified in three categories: excess feed, adequate feed and no feed available. From January to May, farmers are almost entirely satisfied with the feed availability. This has to be correlated to the fact that it is in rainy period and the natural pasture is sufficient for cattle grazing.

4.3.4. Feeds Availability Over a Year

Fodder calendars have been established for the different zones and showed that grazing is the major source of feeds. Figure below indicates one of the fodder year-round calendars established during the study. It can be seen that grazing major source of feeds, followed by roadside cut fodder feed such as Napier Grass and Crop Residues. It has to be noticed that in the dry season farmers have no other choice than to increase the part of crop residues in their animals' feeds even though they declared they did not like to feed their animal by this means. Example of Year-round Fodder Calendar Established for Umutara Zone



Source: Primary source, 2015

4.4. Feeds Supplements

4.4.1. Purchased Feeds

It has been noticed that the most supplement used in all zones is essentially minerals as it is illustrated by the case of Gishwati in the table below.

Use of supplements in feeding dairy cattle in Gishwati Zone

Supplements purchased	Number of farmers purchasing	Percentage
Cereal bran	1	0.97
Mineral supplements(Salts)	101	98
Brewery by products	2	1.9%

Source: Primary source, 2015

The results presented in this table show that 98% interviewed farmers purchase salts to supplement their cows, but a few farmers use supplementation when feeding their animals. Indeed, as an example, less than 2% of the farmers purchase and supplement brewery by-products and less than 1% purchase cereal bran.

4.5. Available Forage Feeds Utilized on the Farms

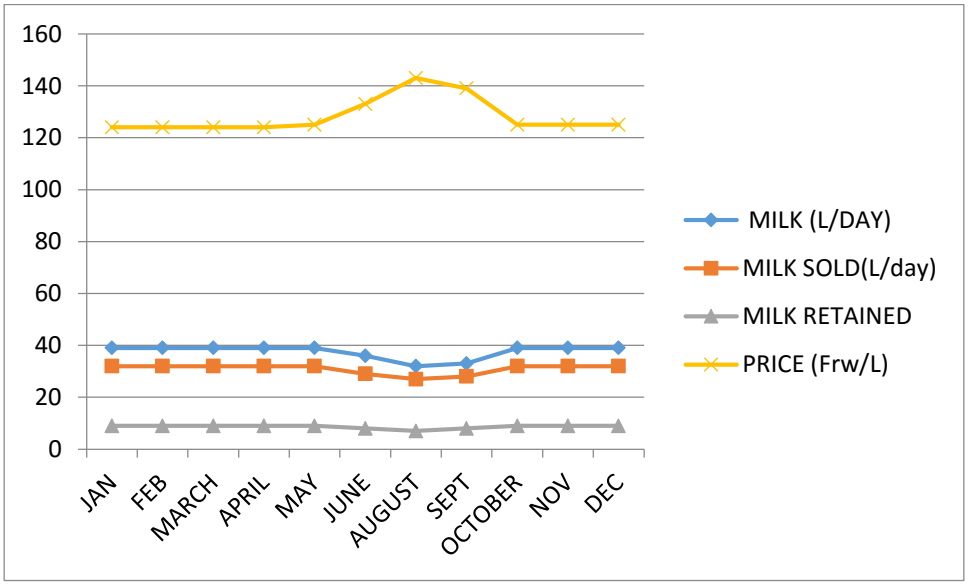
Aside from grazing, the most cultivated cut and carry forage used to feed dairy cattle is Napier grass especially in Umutara zone, whereas in Gishwati it is mostly Kikuyu grass.

However it has been observed that some farmers cultivated maize to feed their animals. This confirms results from Lukuyu et al. (2009) where farmers reported a seasonal fluctuation in livestock feed availability with the greatest feed scarcity being felt during the dry season. Napier grass and natural pastures formed the bulk of feed resources during both the wet and dry seasons. Napier grass is the most preferred cut and carries available forage because many farmers cultivated it at the surrounding of their farms, although the main purpose is to avoid erosion but not for feeding animals.

4.6. Milk Production and Sale Price

The figure below is presented to illustrate the trend of milk production and milk price throughout the year and shows seasonal production and price fluctuation in one of the zones in Gishwati. This case of Gishwati is replicable all over the country.

Trend of annual Milk production and price



Source: primary data, 2015

4.7. Major Constraints of Livestock in Marketing

When farmers were asked to rank their major constraints, it was surprising that they did not mention lack of livestock feeds as a constraint. However, they cited seasonal variation (climate) as the most predominant constraint, which can be correlated with feeding.
Indeed, in Eastern province as an example, seasonal variation was cited as the biggest challenge for all farmers surveyed in that zone. The majority do not think any solution can be found and says that only God can answer this problem by bringing to them a better climate.

V. Conclusion and Recommendations

5.1. Conclusion

This study was conducted to assess feed and feeding system in different zone of Rwanda. However, the results presented in this report are a quick glance on the study. It will be completed by a more detailed and complete report.

The most common picture is that grazing represents the most used feeding system in Rwanda. Feeds availability (forages, crop residues, agro-industrial by-products and non-conventional feed resources) throughout the year has been assessed. The study revealed that they are poorly used by farmers. In general the study showed that all over the country, farmers need training on how to feed their animals and how to make use of different feed resources available by adopting feed conservation technologies (silage, hay making, concentrated feeds preparation using mostly available products…) to cope with feeds shortage at critical periods.

5.2. Policy Recommendations

This pilot study was aimed at advocating for larger study encompassing whole dairy value chain and assist in the development of an Animal Feeds Policy by the Government to give a formal framework upon which the Animal Feeds industry will develop.

The Policy should allow development of the local capacity of stakeholders to optimally utilize the feed resources in order to increase the supply. Specifically, it should aim at: Stimulating increased feed production,

Ensuring quality animal feeds on the market. For this, the Policy should set up strategies which include:

- Formulation of standards,
- Rules and regulations to govern the feed industry.
- Reducing production costs and building capacity by promoting all technically feasible options and removing the major barriers,
- Strengthening research in order to stimulate more innovative approaches,
- Promoting transfer of appropriate technologies,
- Encouraging increased production of raw materials for feeds production,
- Encouraging formation of farmers and manufacturers associations,
- Developing rural infrastructure to increase access to raw materials….

This Policy to be effective and successful, the Government should provide a conducive environment for good manufacturing practice and quality control, promote and stimulate a competitive animal feeds industry, provide a conducive fiscal and regulatory basis for the growth of the industry and put in place suitable institutional framework and infrastructure for delivery of support services.

Finally, the policy should encourage participation of the private sector by availing credit to the animal feed industries, taking into consideration the gender issues and the protection of the environment.

VI. On-going researches

The projected whole study is to undertake a research project to assess livestock feeds and feeding systems and pathways to improve dairy production and dairy farmers' income in Rwanda. This research study was supposed to be executed in phases: ***(i)*** a survey study on feed availability and feeding practices. As this phase is coming to the end, we expect to undertake a study of the chemical analysis of most available feedstuff and propose a library of most common and available feeds in the country. This will be followed by ***(iii)*** a trial to determine the feeding quality of the most predominant feedstuffs, locally available; ***(iv)*** analysis of milk quality and milk safety at the farm level; ***(iv)*** completed by a milk value chain analysis to understand the huge differences (3 to 5 time) of milk price between the production and the consumer levels. Finally, the aim of the whole study is to propose dairy feeds which are cost-effective, easily adaptable, and sustainable for the dairy farmers. It is hoped that attaining the objectives of the study will help not only to lower the cost of feeds, but also to increase milk production, lessen the seasonal fluctuation of production, help farmers to provide high quality and safe milk…, all this leading to increased productivity and income of the dairy farmers.

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Project Title: Food Safety Skill Development in Horticulture Sector of the Rwandan SMEs January1-June 30, 2015

Project Team:
PIs : Dr. Deepa Thiagarajan, Dr. Les Bourquin and Dr. Hilda Vasanthakaalam
Research Members: Mr. Fabien Matsiko and Mr. Ernest Murindwa

Introduction

The principal source of employment in the rural areas of Rwanda is agriculture. It is believed that the development of the Rwandan horticulture sector can have a significant impact on poverty reduction. Horticulture is one of the targeted sectors by National Export Strategy (NES) in Rwanda and by 2015 the projected revenue from horticulture exports are anticipated to triple 2009 revenues from this sector. Though the food processing industry in Rwanda is in developmental stage, the adoption of modern food safety and quality systems is currently limited. One of the priority issues and key challenges to be addressed is to enhance the quality of exports of horticulture products. This skills development training program addressed the ability of the SMEs to meet food safety requirements in international markets. In order to ensure the production of safe food and more effectively engage with higher-value markets, Rwandan food processors, including women agro-processing cooperatives, must improve their capacity to meet exacting international food safety requirements.

The overall goal of this project was to improve the knowledge and skills of food safety managers and trainers in Rwanda, and ultimately, improve the capacity of Rwandan food companies to meet international food safety standards. The specific aims of this research were to assess food safety knowledge, basic skills, self-efficacy to implement correct food safety practices, and self-reported attitudes and behaviors of managerial-level personnel in the Rwandan food manufacturing sector before and after participating in standardized, competency-based training programs on food safety. Food safety behaviors and practices by participating companies were assessed using standardized tools before and after training of their food safety managers and mentoring on recommended food safety practices.

Methodology:

Thirty SME food industries in and around Kigali were considered for the training. They were contacted via phone and invitations were personally distributed. A three-day training program was held for food safety managers from selected companies as well as trainers from the University of Rwanda and Rwandan government agencies.

The training program was designed to convey food safety knowledge and basic skills in thirteen areas comprising the Basic Level Requirements for Food Manufacturers under the Global Markets Program of the Global Food Safety Initiative (http://www.mygfsi.com/market-

access/global-markets-programme/overview.html). Specifically, the training focused on content areas such as worker health and hygiene, cleaning and disinfection procedures, pest control, control of food safety hazards including food allergens, traceability, facilities requirements, water quality, and food safety incident management. A pre-assessment test on food safety was initially conducted. At the end of the training a post assessment was also conducted. These assessments each was comprised by 30 questions covering knowledge and basic skills associated with the 13 training topics. A checklist to assess company food safety practices was also developed and translated into the local language. The team assessed twelve companies and conducted the assessment using the developed checklist. The companies and their food safety personnel were advised to apply and follow the food safety training they received in a disciplined manner. In between, the companies were contacted and followed up by telephone calls to encourage compliance. At the end of four weeks a post assessment using the same checklist was conducted to assess the effect of training on food safety compliance in these companies.

Results:

Translation of documents:

The following documents were translated into local language (Kinyarwanda):

- The company practices check list
- User guidance for the checklist
- Training materials: presentations
- Protocol

Demography of the SME's:

The demographic status of 13 companies was obtained. They were all SME's in and around Kigali involved in the processing of fruit juices, jams, wine, composite flours, bread and pastries, flours, dried products such as cassava leaves, mineral water and similar products. There were older companies that existed since 1987 while there were new companies that stated only in 2013. The number of employees ranged from 4 to 300 apart from the casual laborers employed. These companies had markets locally regionally and internationally. S mark certification from the Rwandan Standards Board (RSB) was available in some companies while it was not there for majority of them. Appropriate documentation of food safety practices was lacking in majority of the companies but they were encouraged to improve their documentation practices.

Results of pre and post assessment of participant knowledge

Twenty-seven participants in the training program completed all portions of the program including the pre- and post-assessments of knowledge and basic skills. The results of these assessments are presented below:

Parameter	Pre-Assessment (% correct)	Post-Assessment (% correct)
Mean Score	64.0	76.2
Maximum Score	83.3	90.0
Minimum Score	36.7	56.7

In addition to these 27 participants, an additional 5 participants completed some portion of the training program and completed the post-assessment. These 5 participants scored an average of 58.0% with a range of 26.7% to 83.3%.

Results of conformity assessment in the companies

The companies were trying to put systems in place. All participating companies have tried to set right several things critical food safety aspects except for one company that did not take any efforts during the course of the follow-up period. These assessments indicate that the SME's need regular follow-up for technical support and monitoring that would enable them to enhance their food safety and quality programs. The participating SMEs still need to enhance their food safety practices and quality of their products.

Conclusion:

The study proved that it was possible to enhance the quality of the products processed by SME's in Kigali Ngali area. It is recommended that the participating companies complete follow up plan to encourage their continued improvement and help support their successful entry into higher value markets for their food products.

Appendix A – List of companies

S. No	Food Company
1	Biohub
2	COCOF
3	COTRAF
4	COVAFGA
5	PABEC
6	Shekina
7	Urwibutso
8	Unite de Transformation Semi Industrielle (UTSI) Muhanga
9	ALFA FOOD
10	E-and Food Direct
11	Jumble company

	Indakemwa
12	MINIMEX

Appendix B – Checklist used for assessment of food safety practices

Appendix C – List of participants in two-day food safety workshop

Last Name	First Name	Organization
Bahati	Jean Claude	Inyange
Bitwayiri	Gregoire	COCOF
Habimana	Védaste	Shekina Enterprise
Hakuzimana	Théomestine	COVAFGA
Hategekimana	Jean Paul	UR
Jematuro	Lionel	Inyange
Kamanzi	Celestin	Jumble
Mugabushaka	J. Norbert	NAEB
Mukamana	Denyse	MINAGRI
Mukandayisenga	Béatrice	Urwibutso
Mushimiyimana	Annonciata	NAEB
Mutoni	Teddy	MINAGRI
Mwizerwa	Hervé	NAEB
Ndayisenga	Belise	Bio-Hap Ltd
Ndayisenga	Moses	Minimex
Ngezahayo	Diogene	Urwibuto
Nishimwe	Roger	Shekina Enterprise
Niwemugeni	Thérèsie	COTRAF-GF
Ntwaza	Gamariel	Minimex
Nyamvumba	Jane	RSB
Nzamwita	Madjaliwa	RAB
Tuyisenge	Maurice	Bio-Hap Ltd
Umutoni	Clémentine	Jumble Company Ltd
Uwabanyiginya	Clésence	Lamane Bakery
Uwizeye	Immaculée	UTSI Ltd / Shyogwe Diocese
Vasanthakaalam	Hilda	UR
Vuningoma	Petit	Indakemwa

Appendix D: Final Pedagogical Evaluation

Pedagogy Survey - June 30, 2015

1. The pedagogical workshops have helped me improve my teaching:

Strongly disagree:	
Disagree:	
Neither agree nor disagree:	2
Agree:	12
Strongly agree:	23

2. Because of the pedagogical workshops, I have made changes in the way I teach:

Strongly disagree:	
Disagree:	
Neither agree nor disagree:	1
Agree:	18
Strongly agree:	18

3. Please describe some changes you have made in your teaching as a result of the pedagogical workshops:

To know how I can integrate gender in my modules, then to use e-learning that I have been
taught in my ways of teaching
The main changes which were incoporated in my teahcing were students participation in teaching and learning process to great extent. Encouraging week stduents, including gender, to participate and assure confidence for skill development
Participation of the students

After introducing a chapter, I let students think critically on what I am teaching. I ask them questions that require students to think deeply and they also participate in sharing ideas on what I teach them
I prepare the course session and make it more participative. I try to be a facilitator rather than a teacher. I let students discover, apply, and demosntrate the application or theory into the real world
How to manage big classes. How to increase student participation. How to improve my presentation and incorporate e-resources
E-learning is very attracting
I have gained the knowledge of entertaining both males and females combining all together toward economic development - but still workshops are needed
Designing a course/modules following three important learning outcomes (knowledge, skills, and attitude) and use experiencial learning in teaching and in assessing
I have learned that gender must be included in every module and should be considered while teaching
I am administrative staff, I could not get the opportunities to apply what I have learned
Experiencial learning, collaborative teaching, creation of e-course
How to youtube
Integrate gender in classroom. Integrate gender in development. Integrate gender in teaching participation
Changed from teacher-based learning to learners-centered learning where students participation is more focused
Involving more of students - starting from the purportion of course materials through discussions and interventions
Currently, the teaching will be improved since all tools have been given and it will be incorporated in the future teaching process
To keep the students on board by allowing them all time to share their experiences and ask questions
Most times when I thought it was more teacher centered learning, but after the workshop, I have learned the include more ways of student participation
I have included some gender lessons in my courses, videos, for more explanation and soon I will include/upload my courses online for students
How to access the course online, to make a setting, to be able to have visuals when you have a speech

As a result of the pedagogical workshops, I improved my teaching by matching the learning objectives, outcomes and activities
Course design - taking into account gender issues. Mentorship, evaluations, and course assessments.
Motivating students for learning.
Classroom management
Improvement in preparation of teaching materials, evaluation of students, making teaching material available for students on e-learning and all in these considering gender role in teaching methods
Considering students as construtivist learners. Maintaining gender balance and perceptions while handling students. I have created an online course which I hope to use for teaching next academic year
I have changed the way I used to lecture - now I have included different activities during lecturing hours and my students are more comfortable and interested
Try to include student in dicussions to draw conclusions on the learning material
I intend to produce e-material for learning this year 2015-2016
I started using case studies in my teaching (problem based learning)
More emphasis on skill transfer rather than knowledge transfer, through case studies, practice in experiemental teaching.
Gender mainstreaing in course, e-learning skill

4. The pedagogical workshops have helped me understand the role of gender in the classroom:

Strongly disagree:	
Disagree:	
Neither agree nor disagree:	1
Agree:	13
Strongly agree:	21

5. Because of the pedagogical workshops, I have included gender more in my teaching:

Strongly disagree:
Disagree:

Neither agree nor disagree:	3
Agree:	20
Strongly agree:	12

6. Please, desribe some ways in which you have included gender in your teaching:

Inclusion of girls students in a group learning presentation. Encouraging girls for taking leadership roles in class and field activities

Basing on what I saw myself where the girls or female students are being descriminated. In being recruited to new jobs I will argue my students to fight that I dialogue of descrimination when they complete and happen to have a voice anywhere

For each unit I teach I am able to relate it to gender

I have formulated working groups which include both female and male. I also tried to include one chapter on improvement of gender for example in marketing agricultrual products.

Gender has been included during group work where responsibilities (group leaers, presentation) have been assigned to both male and female and it has been included in case studies

I try to use language which is gender sensitive. I check if both boys and girls are participating. I give materials that are related to gender issues

Equal accessing e-learning on both students (girls and boys)

Actually, I used to teach without taking into account gender issues in my program. I have created methodology of looking how my course will be helpful for both males and females

In my class session, I should be gender sensitive in handouts and in assessment and group work

I have encouraged more women students to study hard and be confident because they are able. No segregation in class - all students are equal

As I am not a lecturer, I didn't include gender in teaching but I used it in other ways

Added a chapter on gender issues. I now know how to link any topic to gender using activity profile and other gender analysis tools

Gender equality. Gender bias and gender strategic and practical

Mostly in methodology (asking questions). The participation of both female and male is assured for practical parts also gender has been strengthened

Taking account females and males during group presentation and leadership in class. Taking account voice, big classes, social case studies during my teaching
In teaching methodology of including gender will be focused on. Encouraging girls to be more active and confident and lead others in groups.
Taking care and making sure that all examples and demonstrations are gender sensitive (men and women are included)
Giving examples by using both genders. Make sure boys and girls actively participate
In the topics of discussion I have included gender discussion on various topics of discussion for particular module courses. Looking at the end users for various discussions, issues. Developing case studies and try to include gender as part of it.
By forming groups of three students and encourage each to participate through answering questions and also giving quiz/assignments to present genderly
I now prepare my courses and integrate the gender component and make sure that the gender issues are tackled
Listen carefully to female students with specific concerns (i.e. childre, pregnancy). Making sure that both males and femalres actively participate in class discussions and assignments
I now know how to introduce gener concepts in my module
Sensibility in teaching and examples as case studies and evaluation process by considering challenges associated with gender
I have encouraged female student group reporters. I have thought carefully about the examples of role modules that I have used while teaching
Find examples which are gender sensitive, make involvement in the activities with emphasis on gender aspect
I am more gender sensitive when I form work groups in my class for assignments
Be sensible with gender issues and case
Gender is necessary in our teaching activies and that is why equality is a crucial issue in our daily life at University of Rwanda

7. The pedagogical workshops have helped me understand e-learning better:

Strongly disagree:
Disagree:

Neither agree nor disagree:	
Agree:	16
Strongly agree:	21

8. Because of the pedagogical workshops, I will use e-learning more in the future:

Strongly disagree:	
Disagree:	
Neither agree nor disagree:	
Agree:	12
Strongly agree:	27

9. Please, describe some ways in which you will incorporate e-learning into your teaching:

E-learning is a way that can faciliate our teaching activities. We shall reduce contact hours efficiently because all students will be in touch with lecturers virtually

Create all my course online. Provide different evaluations online.

By using the blended learning (face-to-face learning and e-learning) ex: E-learning will be used to upload resources, to assess… etc…

All my presentations related to later courses will be prepared in a way to serve anybody at a distance

By making learning material available for students and also make them access more references and more learning material - exchange with them more easily

Now as I understand the concept of e-learning, I plan to give assignments, quizzes, and other activities to my students online. I shall also provide lecture notes and small videos explaining the course online. I shall do self evaluation online as well.

I hope to enroll studnets to my course and encourage them to do assignments, quizes, etc.. Evaluation, feedback online - it saves time

Making teaching materials available for students. Exchanging and sharing feedback to improve in the future. Teaching online (e-learning) and share with future students.

Will help studnets to get the syllabus sent by lectures, will assist lecturer who will attend the workshop in e-learning
My course is now in e-learning of the UR and I know how to use all tools
E-learning will be incorporated by having presentation, assignment and quizzes online where students will be able to access it
Creating and uploading my courses online. Encourage my students to take online course. I will invite students to go and consult my online resources
E-learning working help me to upload any course online, how I can put teaching video online, how I can access online course for example
E-learning will help to reduce contact hours by using video and records
I will make a platform where I will include the syllabus, notes, videos, pictures, and invite students to learn, then chat and then evaluation
Presentation video in powerpoint. Uploading courses online with UR and platforms and video conferencing for distance learning
Design and learning online course. Add video, powerpoint to online course. The number of students should increase
The e-learning will be incorporated into my teaching where I will prepare online courses an duse a blended teaching method
I am very interested in this course. I will use this new system of e-learning
I will try to prepare my courses well and upload them online for students through enrolling them as a to have access to my courses
Would use e-learning in developing course assessments like multiple choice questions and sending course notes
Invite my studnets on my e-course. Keep exchanging online for more effectiveness
In using e-learning, we can teach how by incorporating video pictures, assignment forums for discussion with students
Searchign online materials, posting mine and hopefully I shall be able to ineract with my studnets online
To speed up courses and give more explanation. I shall use e-learning on some steps of teaching
Uploading course materials on UR platform where studnets will access them quickly. Make an evaluation (quiz, assignment) online

Putting courses in platforms. E-learning distance and making up video. E-questions and e-assessments.
Assessment tools will be created in my courses. Video classes will be created.
All of my courses will be put on UR - e-learning platform and I will teach my students on how to consult them and will assist them accordingly
I have already started creating e-course and I shall complete it in coming weeks
E-learning will help to share with colleagues knowledge and skills but also will help me to update my capabilities in pedagogy
I will make/upload a more attractive youtube video on youtube
Creating and uploading my online courses, assessment tools, and conference and students guiding

10. Overall, I feel that I am a better teacher because of the pedagogy workshops:

Strongly disagree:	
Disagree:	
Neither agree nor disagree:	1
Agree:	15
Strongly agree:	22

Please, add any comments you would like to:

These workshops have really improved my way of perceiving the teaching profession. I am ready to pursue my career (otherwise I was about to leave it). It is worth to all staff for improvement.
All the staff should attend these workshops
We/I feel as if I am not fully equipped as expected due to the time allocated to the trainings. Several duties did not allow for attending all of the trainings. Duration of training was quite long an dcould better be split into short parts of 3 days each to allow good attendance.
The workshops have been of great interest to me, I believe that I will improve much better my teaching strategies.
E-learning was the most interesting.
Highly appreciated for the thoughfulness to get us trained and better teachers at UR. Thank you for the commitment for all!

I suggest to organize or plan for next project an evaluation on feedback assessment on usage of knowledge on trained subject in the future - just to evaluate the sustainability of training

Thank you for the workshop. As I received more knowledge which will help me in my work

I reallly appreciate the pedagogy workshop because now I know how to prepare well for my courses, how to make my class more participative. I know the good way to access and to educate my studnets and I know that the evaluation of the couse by students is very helpful in improving my course and way of teaching. I can know how to include gender into my course while I was thinking that it was not possible. I can create a course online and assess students. The pedagogy workshop has made me a good teacher.

I really agree that the workshops have helped us lots in our teaching career. I thank you for your contribution. God bless you.

I thank you very much for this opportunity. May god bless Rda and bless USA

I would like to thank all the popel eand the university of Rwanda at large for organizing such a wonderful workshop as it really helped us as a university. Lecturers: thanks once again and may God bless you so much.

I would like to thank the organization e.g. Michigan State University, Washington State University, UR, of collaboration during this workshopp. Also want to thank trainers. Special thanks to John (USA) who coordinated this project

This course was interesting for not only academic staff (teachers) but also administrative staff because I got the skills and knowledge about how I can use the e-learning courses. These programs will help to learn online courses. And I will help students to use this system.

I thank the workshop leaders or founders especially Mr. John and UR to help us know more than we know earlier. From Anlog migrants to digital natives. Thank you very much.

Please make a follow up and continue the networking. Great thanks to MSU!

I thank everybody who participated in making this workshop and I would like to request the Ur-CAVM to facilitate the e-learning process by providing better internet connection

More follow up sessions are highly recommended. Thank you very much.

Please send us addressees of teachers during traning for future networking.

Internet access is the only challenging problem for teachers and students

Such workshops are very important, please hink always refreshment in the future

This program was very important and we would like to suggest that this approach should occur every 5 years

Many thanks to MSU and UR admin. I wish more refresher courses be prepared to see how far the teaching and learning has improved with UR

I have done the workshop of e-learning but am not a lecturer, I am administrative staff but it is helpful, it will enable me to help some lecturers who will not be able to use it and I really take this opportunity to thank you all very much

My appreciation to the coordinator of the program, to all trainers in different workshops already attended, E-learning, gender, students peer coaching. It was really worth good to be with them. Thank you!
I would like to suggestion a creation of working group to monitor and evaluate the changes or coach/help the trained people without preparing another workshop for the same matter.
I would also like to suggest the integrate of abroad trainings to share lessons learned in pedagogy - gender and e-learning
Thank for the opportunities. Thanks for the collaboration between Rwanda and Michigan State. Thanks for URCAVM and Michigan State University authorities
We need more materials and stable internet for increasing e-learning
For this e-learning workshop, I appreciate it because it has helped me to understand how I can use e-learning platforms and resrouces for my teaching activities.
This will help/enable me to improve my teaching methodology: moving from traditional to modern (e-learning) system
I really thank all the involved partners who have made this training happen.

Appendix E: Internship Handbook

University of Rwanda College of Agriculture
HED Women's Leadership Program MSc Agribusiness
Office of Career Development
Internship Handbook 2014

Opening Letter

Dear Students and Internship Mentors,

Thank you for being a part of our internship program! We are excited about he professional growth our students will gain through having a direct connection to real-world experiences with the support and guidance of a mentor. We also are hopeful that mentors will benefit from contributing to the development of the next generation of experts in their industries. This program is designed to be mutually beneficial. Student interns will spend twelve weeks with a mentor to acquire meaningful hands-on experience that expands their understanding of how the industry works, exposes them to essential skills they must acquire or develop to be successful in the field, and allow them to gain insight into the mentor's business. In return, mentors will have access to an energetic, enthusiastic, and creative worker who may be come a future employee or colleague.

This is more than a task-oriented job a student executes for a wage. It is intended to be a professional development opportunity in which the intern learns how to execute these duties, while expanding their understanding of the purpose of these tasks in the overall scheme of success for the company. In addition, it is our expectation that the student will make a significant and meaningful contribution to the company. To ensure that this happens, students will be matched with a mentor early in the program so that they can focus their thesis research on meeting a real-world business need for the company where they will conduct their internship. In this way, company leaders and students become partners who benefit mutually from the experience.

To facilitate a win-win scenario, we ask that you review these guidelines and communicate with personnel from the University of Rwanda's Career Development Office in the Faculty of Agriculture if you need assistance at any time throughout the process. Please contact Daniel Rukazambuga, dnrukazambuga@gmail.com or by telephone 0788415194

Again, thank you for participating in this program. We look forward to working with you.

Sincerely,

Daniel Rukazambuga,
Coordinator, Career Development Office
Women's Leadership Program MSc in Agribusiness
University of Rwanda College of Agriculture

What You Should Know: Internship Basics

An internship is an on-site, pre-professional experience designed to provide students with exposure to skills, duties, and responsibilities associated with a job opportunity in their intended career path. Students enrolled in the MSc in Agribusiness within the College of Agriculture at the University of Rwanda are required to complete an internship with a company that is linked with their thesis proposal. The internship program is designed as a 12-week capstone course where the student will put in practice the knowledge acquired during the program's coursework. Graduating from this program involves exposing the student to applied decision making by identifying actual problems relevant to the company or institution where the internship will be developed. Students will be empowered to use agribusiness theory to understand the behavior and challenges of the hosting companies and institutions. Students are expected to contribute to their hosting institution by dedicating their thesis research to understand and address issues limiting the expansion, profit maximization or competitiveness of the firm.

The internship will consist of a minimum of 230 contact hours with the company and 10 hours of outside preparation. Contact hours include work time as well as meetings, seminars, conferences etc. associated with the internship.

Seven mandatory assignments must be completed at various times throughout the internship process. Five of these must be completed by the student intern and two are completed by the Internship Mentor. Further information, including website links and guidelines, is provided in the "documentation" section of this handbook.

Student Intern: A graduate student pursuing an MSc in Agri-Business at UR who is participating in an internship experience for course credit that will fulfill the requirements of their degree program.

Industry Partner: The Industry Partner is the organization, company or affiliate that the Student Intern will be working for during the internship experience.

Internship mentor: Industry Partners are required to assign an Internship Mentor to the Student Intern to support and guide them through the internship experience. The Internship Mentor is normally the individual that directly oversees the student's work on projects, or is paired with the student based on common career goals or interests.

Internship Coordinator: The Internship Coordinator serves as the main point of contact for the Student Intern, the Industry Partner and the Internship Mentor before, during and after the internship process. This person also should be contacted by the Industry Partner and the Internship Mentor to address concerns, questions, or comments about the process or the Student intern. All internship documents, both mandatory and optional, will be submitted by the Student Intern and Internship Mentor to the Internship Coordinator. The Internship Coordinator is Daniel Rukazambuga, dnrukazambuga@gmail.com or by telephone 0788415194

Internship Guidelines for Student Interns

Student Interns: Internship opportunities provide you with a practical application of what you are learning in an academic setting to real world scenarios. Internships take you beyond the realm of what someone is exposed to in a job where you simply execute tasks. You are challenged to expand your learning beyond the mechanics of the responsibilities in order to gain an understanding of the goals, objectives and operations of the business or organization you are interning with. It is vital that you prepare well for this internship in order to gain the maximum value from the experience. The following list describes what you are required to do to prepare for and complete your internship.

Finding an Internship

Coordinate with the CDO and your advisor – start the relationship early – it is required that your internship is linked with your thesis research – meet a real business need
Lecture series is a good place to connect with companies that interest you, meet with business leaders and identify areas where your research can make a contribution
Network with faculty, friends and family members about opportunities in organizations that they are associated with that interest you.

Applying for an Internship

Create a current resume and cover letter. For assistance, visit the Career Development Office in the Faculty of Agriculture (where is it located physically?)

An interview will most likely be required for the internship. Dress professionally in business attire and be prepared to answer questions about your experience level, what you are looking for in an internship, your work ethic, why you are well suited for the position, and so forth. For interview tips, please visit the Career Development Office in the Faculty of Agriculture.

Complete the appropriate paperwork to apply for the internship.

Check your email, and phone messages for communication from potential employers and respond in a timely manner.

We need a step in here where we get some coordination between students, their academic advisors and Daniel (who will be coordinating with the industry partners) to make sure that they are placed in the right company – their work will be tied with their thesis and vice versa

Preparing for the Internship

Confirm your plans with your Academic Advisor and with the Internship Coordinator

Register for the appropriate Internship course and the appropriate number of credits

Review the Student Internship Requirements at a Glance (Attachment A)

Complete the Statement of Intent using the description outlined in the "Documentation" section.

Include the cover page (Attachment B) and obtain the appropriate signatures. Submit the completed, signed statement to your Internship Coordinator.

If your Industry Partner or Internship Mentor has not already completed the UR Student Affiliation Agreement (Attachment C), please send a copy for them to sign and submit to your Internship Coordinator.

During the Internship

Meet with your Internship mentor regularly to become familiar with the day-to-day responsibilities and duties associated with their position and to discuss your progress in fulfilling their expectations of you during the internship experience.

Keep a journal to document your experiences, including descriptions of what projects you are working on, what appeals to you about the work, what you find challenging and what you are learning about the duties and responsibilities associated with this position. Note specific, essential skills you feel like you must acquire while you are still enrolled in the MSc program to be successful in this field.

Complete the Mid-Way Check-In at the halfway point of your internship, and submit the completed paper to your Internship Coordinator. Guidelines can be found in the "Documentation" section on page ?

Remind your Internship Mentor to complete and submit the Mid-Way Evaluation

Check in with your Academic Advisor - link thesis research and internship

Completing the Internship

The Final Report is to be submitted to your Internship Coordinator upon the completion of your internship. Final Report Guidelines can be found in the "Documentation: section.

Remember that your Internship Mentor must review the report and sign the Final Cover Page prior to submittal (Attachment D).

Complete the Experience and Professionalism survey and the Student's Evaluation of the Internship Experience survey. The survey can be found on page ? of the "Documentation" Section.

Send your Internship Mentor and Industry Partner a thank you letter or card to acknowledge them and show your appreciation for the opportunity as a follow-up to your internship experience.

Internship Guidelines for Mentors

Internship Mentor

An ideal mentor is someone who is a professional in the field who is committed to and capable of providing structure for the internship experience and constructive feedback to the Student Intern. An excellent mentor will take the time to interact with the Student Intern in a meaningful way so that the intern can learn form your wisdom and experience. Part of your responsibility is to convey and role model the core values and goals of your organization to the intern in an impactful way.

Internship Mentor Requirements

Please sign the Statement of Intent cover page for your Student Intern upon request. The Student Intern will submit the signed form to the Internship Coordinator

Complete and sign the UR Student Affiliation Agreement (Attachment F) explained in the "Documentation" section on page 10. Submit to the Internship Coordinator.

Provide the Student Intern with an orientation to the workplace. Explain the activities involved in the experience and define workplace expectations.

Arrange a suitable time for regular meetings with the Student Intern to allow for mentoring and discussion regarding his/her progress throughout the internship.

Please complete the Mid-Way Evaluation at the halfway point of the student's internship experience to document progress, make comments, or identify concerns. Guidelines for completing this evaluation are found in the "Documentation" section.

Sign the Final Report Cover page after reviewing the student's Final Report and complete the Mentor Survey to evaluate the internship experience overall. The survey can be found in the "Documentation" section.

Optional Mentoring Activities

The challenge for the Internship Mentor is to provide a well-rounded, productive experience that supports the student intern with gaining professional competence and confidence in a modern and diverse workplace. Please consider incorporating the following activities into the experience as appropriate:

If the student intern completes the responsibilities of the project in a timely manner, please provide the intern with a wider array of more challenging tasks.

Tour the facilities to explain how the entire operation works

If the organization has multiple locations, allow the student to visit another job site.

Discuss policies and procedures for completing tasks, assessing productivity, quality assurance, etcetera with the Student Intern

Have the Student Intern attend a conference, seminar, or discussion related to the job

Assist the Student Intern with networking with colleagues to learn about other jobs, experiences and perspectives within the industry

Internship Guidelines: Documentation

Achieving Excellence

Specific information and guidelines surrounding the five documents and three surveys that are to be completed by the Student Intern and Internship mentor are found below. The guidelines are provided in the same order that the documents are expected to be completed. For convenience, please use the one page "Student Internship Requirements at a Glance" in Attachment A to monitor progress.

All papers submitted by the student should be free of grammatical errors. The basic guidelines for all papers are:

Font Size: 11-12 pt
Font: Times New Roman or Calibri
Double Spaced
Page requirements are listed in the specific descriptions of each paper

University of Rwanda Student Affiliation Agreement
Due: Before the Start of the Internship

Also known simply as the Affiliation Agreement, the UR Student Affiliation Agreement is a legal document that is filled out by the Industry Partner or the Internship Mentor if appropriate. The Affiliation Agreement is a cooperative agreement stating the duties and responsibilities that the Industry Partner/Internship Mentor and UR, more specifically the Faculty of Agriculture, are going to provide with respect to the internship experience. The Affiliation Agreement can be found in Attachment F and needs to be filled out and signed by the Internship Mentor, Internship Coordinator and the Student's Academic Advisor in the Faculty of Agriculture at UR.

Statement of Intent
Due: Before the Start of the Internship

The Statement of Intent Cover Page can be found in Attachment D and should be filled out in its entirety by the Student Intern. Signatures wil be needed from the Internship Mentor, Academic Advisor, and Internship Coordinator. The Statement of Intent is a one or two page paper that provides a brief description of the internship, including specific job responsibilities with expected timelines for completion and expected outcomes if known. Most importantly, the Statement of Intent will describe the business need that will be addressed through the Student Intern's work at the company and researched through the Student Intern's Masters Thesis. In this document, please address or demonstrate competency in each of the six goal areas listed below (if applicable to your internship)

An understanding of professional ethical responsibility
An ability to communicate effectively
The broad knowledge bas required to understand the impact of agricultural, human and natural resource solutions in global, economic, environmental and societal contexts
A recognition of the need for, and an ability to engage in, life-long learning.
A knowledge of current issues
An ability to use appropriate techniques, skills, and knowledge to address real-world problems
A clear statement of the business need being met through the internship and thesis along with a draft plan to address the need.

Mid-Way Check in and Mid-Way Evaluation
Due: Halfway Point of Internship

Communication between the Student Intern, Internship Mentor and Internship Coordinator is vital to maintaining and completing a meaningful internship. A Check-In and Evaluation is required from both the Student Intern and Internship Mentor mid-way through the internship experience. See below for specific requirements for the Student Intern and Internship Mentor.

STUDENT INTERN: Email a one to two page paper answering the following Questions to your Internship Coordinator. There is no signature requirement on this document.

What is working well for you as far as achieving the goals outlined in your statement of intent?

What is not working well or what obstacles have you encountered that are hindering your success?

What adjustments will you make to improve your ability to achieve these goals between now and the time the internship is completed?

What is your action plan and timeline for implementing these adjustments?

Other comments or concerns?

INTERNSHIP MENTOR: Submit an email to the Internship Coordinator answering the following questions:

What is working well for you when serving as a mentor for this Student Intern?

What is not working well or what obstacles have you encountered that are hindering success?

What adjustments can you make, could the intern make, or can we assist with in order to make this experience more successful?

How will you know the adjustments that you make or request from the Student Intern improved the situation?

Other Comments or concerns?

Final Report
Due: Upon Completion of the Internship

The Final Report includes a summary and assessment of the internship experience. This report should describe the internship activities and explain how the experience improved your skills, knowledge and abilities. The report should be **three to four pages** in length and must be submitted to your Internship Coordinator within two weeks of completing the internship experience. The primary requirements of the Final Report should sufficiently cover the six main goals addressed in the Statement of Intent. The student should indicate which, if an, of the six goals were not covered or addressed during the work term, providing appropriate detail or explanation as needed. Refer to the Final Internship Report Guidelines (Attachment E) for more details about the goals.

Complete the Final Report Cover Pate (Attachment D) in its entirety. The Student Intern should sign this cover page, and give it, along with the Final Internship Report to the Internship

Mentor for review. The Internship Mentor agrees to sign off on the document. The student Intern will submit the signed Final Report Cover Page, along with the Final Report, to the Internship Coordinator.

Three Internship Surveys
Due: Upon Completion of the Internship

There are three Internship Surveys, two that are completed by the Student Intern and one that is completed by the Internship Mentor. The Student Intern will evaluate their personal experience, and will assess their professional growth and career preparedness. The Internship Mentor will evaluate the progress that the Student Intern made as a result of the experience, and will provide an overall assessment of the internship experience.

STUDENT INTERN: Please complete both required surveys and return them to your internship coordinator when you have finished.

INTERNSHIP MENTOR: Please help us evaluate the experience by completing the Mentor Survey after the internship is completed. Contact the Internship Coordinator with questions or for further discussion if necessary.

Internship Guidelines: Grading

Evaluating the Internship Experience

Instructors are asked to review the "Rubric for Assessing Internship Experiences" in Attachment I prior to evaluating the Final Report. Internship courses are assessed as follows:

Effectiveness at addressing a real business need in the assigned company.

Demonstration of understanding of professional and ethical responsibility

Effective communication. Ability to communicate with supervisors and co-workers, clients, government regulators, etcetera. Can involve both written and verbal communication in English and French

Demonstrated understanding of discipline and work assignments

Recognition and willingness to engage in life-long learning

Knowledge of current issues affecting business and internship assignment

Ability to use appropriate techniques, skills, and knowledge to address real world problems

On time submission of the Final Internship Report and Surveys

Attachment A

Student Internship Requirements At a Glance

Available online at …. Do we want to put this online?

Keep in Mind:

Keeping a journal during your internsh8p can help when writing the "Mid-Way Check –in" and "Final Internship Report."

Stay in contact with your Internship mentor and Internship Coordinator to discuss how your internship is going

Be certain all assignments are completed and submitted by the due dates listed below.

Contact your Internship Coordinator if you have any questions or anticipate an issue meeting a deadline.

Student Intern

Action Item	Description and Page # in Internship handbook	Due Date
Statement of Intent	The Statement of Intent and the Statement of Intent Cover page 1-2 pages explaining your internship (double spaced, font size 11 or 12 See the "Documentation" section on page ? of the Internship Handbook for details about what to address in your paper Complete and attach the Cover Page (Attachment B) to your paper and obtain the required signatures Submit your statement if Intent, including signed Cover Page , to your Internship Coordinator	**Prior to the start of the semester enrolled in the internship course** **Due Date:** _____
Student Affiliation Agreement	**UR Affiliation Agreement** This is a cooperative agreement between UR and the Industry Partner in respect to the internship experience. This legal document can be found in Attachment C of the Internship Handbook. Send this agreement to your Internship Mentor for the appropriate signatures. The signed and complete agreement should be returned to your Internship Coordinator.	**Prior to beginning the internship** **Due Date:** _____
Mid-Way Check-in and Mentor Evaluation	**Mid-Way Check-in and Mentor Evaluation** 1-2 pages answering the six questions outlined in the "documentation" section of the Internship Handbook. The Internship Mentor is also responsible for answering five questions outlined in the "Documentation" section of the Internship Handbook. Both the Student Intern and Internship Mentor should submit their answers to the Internship Coordinator.	**Halfway between the beginning and end of the internship** **Due Date:** _____
Final Internship Report	**Final Internship Report** The final Internship Report is a 3-4 page summary written by the student. Reference the following pages found in the Internship Handbook for more details: "Documentation" section. "Grading" section. "Final Report Cover Page" Attachment D (*signed by Internship Mentor*)	**Within 1-2 weeks of completion of the internship*** **Due Date:** _____

	"Final Internship Report Guidelines" Attachment E "Rubric for Assessing Internship Experience" Attachment F Submit your Final Report, including signed Cover Page, to your Internship Coordinator	
Surveys		**Upon Completion of the Internship** **Due Date:** **_____**

Attachment B

Statement of Intent Cover Page

Student Intern Information

Name: _____

Phone: _____ Email: _____

Major: _____ Proposed Graduation Date_____

Academic Advisor's Name: _____

Dates of Internship: _____ to _____

Internship Coordinator's Name: _____

Industry Partner Information

Name: _____

Address: _____

Phone: _____ email: _____

Web site: _____

Internship Mentor Information

Name: _____ Title: _____

Phone: _____ email: _____

Signatures

_____

Student Intern's Signature *Date*

_____

Internship Mentor's Signature *Date*

_____

Academic Advisor's Signature *Date*

_____

Internship Coordinator's Signature *Date*

Submit this completed form along with your Statement of Intent to your Internship Coordinator prior to beginning your internship experience.

Attachment C

University of Rwanda Student Affiliation Agreement

This Agreement is made and entered into by and between "_____" hereinafter called the "Training Site" and The UNIVERSITY OF RWANDA, through it's Faculty of Agriculture, hereinafter called "UR"

RECITALS:

UR's curriculum for preparing students enrolled in the Agri-Business MSc program through the Faculty of Agriculture includes a requirement for the students to acquire experience in a professional setting prior to earning their degree.

The Training Site has suitable experiences, supervisors, and facilities available for the educational experience of such students, and is desirous of participating in UR's student intern program.

It is mutually beneficial to UR and the Training Site to have UR's students participate s interns at the Training Site's facilities.

THE PURPOSE OF THIS AGREEMENT is to provide the cooperative arrangements for student intern educational experiences for students enrolled at UR. This Agreement sets forth the duties and responsibilities of the Training Site and UR with respect to these experiences. As consideration for the mutual covenants and agreements contained in this document, UR and the Training Site agree as follows:

I GENERAL PROVISIONS

Following execution of this Agreement, and within the scope of its provisions, UR and the Training Site may develop letter agreements to formalize operational details of the student intern program at the Training Site. These details include, but are not limited to, the following:

Beginning dates and length of experience (to be mutually agreed upon at least one month before the beginning of the student intern experience.)

Number of students eligible to participate;

Specific locations for the student intern experience;

Specific learning objectives and performance expectations for students;

Specific allocation of responsibilities for the UR faculty representative, and the Training Site's supervisor to whom the student will be assigned;

Deadlines and format for student progress reports and evaluation forms.

UR and the Training Site will jointly plan the student teaching/intern experience for each student, and shall jointly evaluate the students. Exchange of information will be maintained by on-site visits when practical and by letter or telephone in other instances.

UR and the Training Site will instruct their respective faculty and staff, and the students participating the student intern program to maintain confidentiality of information as required by law and by policies and procedures of UR and the Training Site.

There will be no payment of charges or fees between UR and the Training Site

UR and the Training Site will comply with all rules and regulations and all other laws applicable to this Agreement.

Student interns while engaged in the educational program provided pursuant to this Agreement shall retain the status of students working toward the fulfillment of their degree requirements. Students are not employees or agents of UR.

Training Site personnel participating in the education program provided pursuant to this Agreement are, and shall remain employees of the Training Site for all purposes, and shall not be deemed or considered to be employees or agents of UR.

LIABILITY COVERAGE PROVISIONS

II The Training Site agrees:

To assign student interns to appropriate Training Site staff capable of providing appropriate experiences and supervision of the student interns.

To insure that the staff to whom the student interns are assigned are providing appropriate experiences and supervision.

To meet as needed with UR personnel to plan, evaluate and modify the student intern program and field experiences, and to assist/cooperate in the collection of data/research that will assist UR to evaluate is programs and potential success of its students.

To treat student interns as professionals, provide clear expectations that they follow all rules and regulations established by the Training Site, and train them to be aware of and follow such rules and regulations.

The Training Site may remove a student intern from placement for violating Training Site rules and regulations or for such actions the Training Site views as detrimental to its operations. The Training Site will consult with UR before final action is taken.

III UR agrees:

To work with the Training Site early in the student's study plan in order to ensure the development of a thesis that meets a real business need at the Training Site and to link students with Training Sites where they can make the biggest contribution.

To provide the Training Site with UR's evaluation materials.

To provide a liaison to work with the Training Site n all matters connected with this Agreement.

To be responsible, in cooperation with the Training Site staff to which the intern is assigned, for the final evaluation of the intern's completion of his/her internship.

To meet as needed with Training Site personnel to plan, evaluate and modify the student intern program and field experiences.

IV It is mutually agreed that:

The central administration of the Training Site and UR's Faculty Coordinator will be jointly responsible for assigning student interns and working out the student's program of experience in cooperation with the Training Site staff, provided, however that the Training Site reserves the right to terminate any student intern when it is in the best interests of the Training Site to do so but will consult with UR 's Internship Coordinator before doing so.

In assigning student interns, it is recognized that, in many instances, it may be desirable for the student to work with more than one Training Site staff member, and in more than one field.

The term of this agreement shall be for _____ years (months?) This agreement may be renewed for additional periods if approved by both parties in writing. Notwithstanding the term stated, this agreement may be renewed, amended, or terminated at the end o f each school semester, provided it may not be amended or terminated as to student interns who have not completed their internship under this Agreement.

The Parties are mutually responsible for compliance with all applicable laws.

Trainees are not and shall not be considered to be employees of the Training Site unless otherwise agreed in writing between the Training Site and the Trainee.

V Other Terms

This agreement and any letter agreement to be attached hereto constitute the entire agreement between the Parties and supersedes any and all prior oral or written agreements, commitments, or understandings concerning the matters provided for in this Agreement. No other understandings, oral or otherwise, regarding the subject matter of this agreement shall be deemed to exist or to bind any of the parties hereto.

The Parties may modify this Agreement only by a subsequent written Agreement executed by the Parties. Any modification shall be effective only if written, signed and dated by the authorized representatives of each Party and attached to this Agreement.

Any conflict or inconsistency in this Agreement and its attachments will be resolved by giving the documents precedence in the following order:

a. This Agreement

b. Attachments to this Agreement in reverse chronological order

This contract is entered into pursuant to and under the authority granted by the laws of the Government of Rwanda (GOR). The Parties' rights or obligations under this Agreement shall be construed in accordance with those laws. The provisions of this Agreement shall be construed to conform to those laws.

If any provision of this Agreement or any provision of any document incorporated by reference, or any other agreement document or writing pursuant to or in connection with this Agreement, shall be held wholly or partially invalid or unenforceable under applicable law, such invalidity shall not affect the other provisions of this Agreement which can be given effect without the invalid provision, if such remainder conforms to the requirements of applicable law and the fundamental purpose of this agreement and to this end the provisions of this Agreement are declared to be severable.

A failure by either party to exercise its rights under this Agreement shall not preclude that party from subsequent exercise ofsuch rights and shall not constitute a waiver of any other rights under this Agreement unless stated to be such in writing signed by an authorized representative of the party and attached to this Agreement.

VI Authorized Signatures

The Parties executing this Agreement below hereby certify they have the authority to sign this Agreement on behalf of their respective Parties and that the Parties agree to the terms and conditions of this Agreement as shown by the signatures below.

FOR THE TRAINING SITE	FOR THE UNIVERSITY OF RWANDA Recommended by:
_____	_____
Printed Name:	Printed Name:
Title:	Title:
Date:	Date:
_____	Approved by:
Printed Name:	

Title:
Date:

_____
Printed Name:
Title:
Date:

Attachment D

Final Report Cover Page

STUDENT INTERN INFORMATION

Name: _____

Certified Major: _____ Proposed date of graduation _____

Dates of Internship: _____ to _____

Job Title: _____

Activity Description (Please describe activities/responsibilities of your position in 3-5 sentences):

_____

_____

_____

_____

_____

INTERNSHIP MENTOR INFORMATION

Name: _____ Title: _____

Name of Organization: _____

Address: _____

Phone: _____ email: _____

As the Internship Mentor for the above named Student Intern, I am signing below to acknowledge that I have read the student's Final Internship Report.

_____

Internship Mentor's Signature

Print this completed form and attach it to your Final Report for your mentor to review. After your Mentor signs to acknowledge he/she has read and approved the report, submit to your Internship Coordinator

Attachment E

Final Internship Report Guidelines

The Final Internship Report is a summary and assessment of your internship experience. To help assess your experience, refer to the six learning objectives below. Describe the experience you gained in each area and explain how that experience improved your skills, knowledge, and abilities. To help facilitate the completion of your Final Internship Report, it is recommended that you keep a personal journal during your internship experience to note activities which fit into one of the six goals below and/or were important to your work.

An understanding of professional and ethical responsibility. Describe how you framed responsibilities and initiated resolution, and who you communicated with to most effectively complete your work (stakeholders, workers, administrators, etc.)

An ability to communicate effectively. Explain how your work experience utilized and aided in developing your communication skills. Examples are communication with supervisors, co-workers, clients, or government officials, and can involve written communication (such as reports and emails) and oral and visual communication (such as presentations).

The broad education necessary to understand the impact of agricultural, human, and natural resource solutions in global, economic, environmental, and societal contexts. Consider the global, economic, environmental, and cultural/societal impact of the work assignment and/or proposed solution.

A knowledge of current issues. Describe some significant current issues that affected the business or activities of the organization with which you were involved

An ability to use appropriate techniques, skills, and knowledge to address real world problems. The activities in this topic area depend on the nature of the experience, but could include the following: problem/system analysis, design/synthesis of a problem,/ system process, testing methods, or implementation of a system (such as a cost/benefit study).

An ability to make a real and valuable contribution to the mentor site. This contribution will be discussed and decided upon between the intern, the mentor and faculty advisor in advance as it will form the basis for the Masters Research topic. Please write about your progress and discoveries made toward your thesis research during the internship.

The Final Report Cover Page (Attachment D) should be completed and attached to your report. Your Internship Mentor's signature is required on the Cover Page before submitting your report to your Internship Coordinator.

Attachment F

Rubric for Assessing Internship Experience (6 Goals)

An understanding of professional and ethical responsibility. Can clearly frame work task(s) and responsibilities and initiate resolution. Understands who to communicate with to most effectively engage the work task(s) (e.g. stakeholders: workers, administrators etc.). Can identify related ethical considerations, such as health and safety, fair use of funds, and doing "what is right" for all involved.

6=Mastering 5= Effective	**4=Competent 3=Developing**	**2=Emerging 1=Minimal**
Thoroughly understands anticipates and accepts expectations and job responsibilities Consistently initiates action and demonstrates professional, self starting, self-disciplined attention to meet new challenges. Can clearly frame the work task professional challenges and embedded issues. Develops appropriate, concrete approaches when resolving issues. Performance demonstrates commitment and a fresh approach to solving problems or initiating new strategies. Sees difficult challenges through to conclusion. Anticipates others' needs, meets and beats timelines	Rarely misunderstands expectations and takes responsibility to initiate and complete job duties. Evidence of professionalism and self-discipline, though it may be limited at times. Evidence of growth on the job. Ability to frame the work task, although key details are often glossed over. Can discuss one or more approaches when resolving issues. Performance shows evidence of original thinking and problem solving, and/or acknowledging, synthesizing or extending other perspectives. May backslide on occasion. Respects others by fulfilling obligations in a timely way.	Requires high levels of supervision. Constantly unaware of expectations. Exhibits unprofessional behavior and lack of discipline. Fails to rise to new challenges. Unable to frame identify or summarize the work task. Does not discuss approaches when resolving issues. Work effort is perfunctory, little personal commitment, fails to adapt to new opportunities. Does not deliver work in a timely fashion. Misses deadlines that negatively impact the team.
Ethics Clearly identifies relevant ethical considerations and addresses them.	**Ethics** Shows some recognition of relevant ethical considerations, but doesn't adequately address them.	**Ethics** Cannot identify related ethical considerations
Stakeholders Thoughtfully considers perspectives of diverse	**Stakeholders** May consider perspectives of one or more stakeholders.	**Stakeholders** Does not consider stakeholder positions on

stakeholders. Demonstrates ability to balance, and often even integrate, ideas from multiple perspectives	Demonstrates tolerance to alternative perspectives and approaches.	various issues, focuses only on own perspective. Works with a singular perspective and fails to consider other possible points of view, especially those held by others

An ability to communicate effectively. Can work collaboratively and build on other's ideas to accomplish work responsibilities. Invites and encourages participation of all participants. This definition focuses on all forms.

6=Mastering 5= Effective	**4=Competent 3=Developing**	**2=Emerging 1=Minimal**
Can collaboratively build on other ideas to form a team approach. Shares the floor and encourages participation of all team members. Encourages others regardless of organizational position by listening and responding appropriately and without prejudice to their contributions. Can clearly present and justify own view or hypothesis while respecting other views. Encourages team to engage one another in a critical analysis of the challenges and exploration of new procedures. A good leader when appropriate, and enhances leadership skills by listening, learning from others and asking questions.	Occasionally builds on other ideas. Attempts to share the floor, although this may not always by successful. Is an adequate team player. Shows sensitivity to the values and feelings of others. Okay with feedback from supervisors but sometimes short with peers or subordinates. Engages challenging ideas tentatively or in ways that overstate conflict. May dismiss alternative views too hastily. Works well with group, occasionally encourages team to engage one another in a critical analysis of the job challenges. Follows well and shows some leadership potential.	Can pose personal opinions but does not build on others' ideas. May monopolize discussion or become argumentative Needs occasional reminders to be sensitive to the values and feelings of others. Ignores or dismisses feedback from others. Engages in ideas that are obvious or agreeable. Avoids difficult, challenging or discomforting ideas. Sees ideas in black and white; does not probe, questions, or encourage critical consideration of alternative perspectives and resources. Neither a good follower nor a leader.

Understanding of the impact of potential solutions in global, economic, environmental and cultural/societal contexts. Considers the work assignments impact on global, economic,

environmental, and cultural/societal contexts. The Intern should address all relevant contexts below to receive a high score.

6=Mastering 5= Effective	4=Competent 3=Developing	2=Emerging 1=Minimal
Can deeply examine the impact of an approach on relevant contexts. Can deeply examine the impact of contexts on the issue and/or proposed solutions. Approaches job with a clear sense of scope and context of the organizational mission, including an assessment of the relation of that job to own and others' learning. Approach to work acknowledges complexity and balanced view of organization's mission and values, makes and sees opportunities to better self, work environment.	Can discuss the impact of an approach on 1 or 2 relevant contexts. Can briefly consider the impact of contexts on the work assignment and/or proposed solutions. Approaches job by exploring the implications of organizational mission, how that mission relates to own ambitions, though perhaps in a limited way. Approach to work includes some outside verification, but primarily relies on single source of information or feedback.	Does not relate work assignment or the approach to relevant contexts. Does not consider the impact of contexts on the work assignment and/or proposed solutions. Does not demonstrate dedication to the team or to the context of the organizational mission. Approach to work is grounded in absolutes with little evidence or recognition of learning opportunities presented in the job.

A knowledge of current issues. The intern considers contemporary issues in their discussion and identification of possible approaches to the work assignment.

6=Mastering 5= Effective	4=Competent 3=Developing	2=Emerging 1=Minimal
Clearly understands the import of considering current issues and addresses them in discussions and approaches. Connects and integrates diverse perspectives and ways of knowing. Connects teamwork to career and civic responsibilities. Evidence of ongoing reflection and self-assessment.	Shows some recognition of current issues and how they might relate to the work assignment. Appears to recognize that working with multiple perspectives has application to this and future work and other learning opportunities.	Cannot consider current issues related to the work assignment. No evidence that working with others and other viewpoints has an application beyond the immediate task.

An ability to use appropriate techniques, skills, and knowledge to address real world problems. The activities in this area depend on the nature of the experience, but could include the following: problem/system analysis, design/synthesis of a problem/system/process, testing methods, or implementation of a system (such as a cost-benefit study, for example.)

6=Mastering 5= Effective	4=Competent 3=Developing	2=Emerging 1=Minimal
Integrates literature and data in appropriate and creative ways. Analysis demonstrates firm understanding of data. Implications of the analysis and evidence guide interpretation, including recognition of multiple perspectives and diverse interpretations. Conclusions are accurate, appropriate, and clearly linked to problem/question, and data presented. Conclusions and recommendations are balanced and qualified to account for uncertainties in the data or unpredictability of the system, and own biases.	Can connect literature and data to analyze evidence but is confusing in some spots or contains minor inaccuracies. Analysis generally reflects evidence reviewed, collected and presented. Interpretation of the data is clear, but not fully integrated with other sources and perspectives. Conclusions are reasonable but may not take into account all critical factors. In a limited way, students consider their own biases, uncertainties or other limitations of the conclusions or evidence.	Cannot connect various sources or support analysis with evidence. Little interpretation of data or there is simply a restatement of facts and ideas found elsewhere. Conclusions are inaccurate and merely a simplistic summary not tied to the original problem/question. Conclusions and recommendations are biased and do not reflect the research and data. Suggested views were established.

An ability to make a real and valuable contribution to the mentor site. The intern's thesis proposal is required to meet a real business need at the internship site. Student's work results in improved processes, new products, improved capacity or other verifiable benefit to the company

6=Mastering 5= Effective	4=Competent 3=Developing	2=Emerging 1=Minimal
Significant changes processes, procedures or policies as a direct result of the internship New markets are opened or products developed Revenue is increased or any other measurable impact can be attributed to contributions by the intern	Small changes processes, procedures or policies as a direct result of the internship New markets or products are identified for future development Minor impacts can be attributed to contributions by the intern	Suggests no improvements as a result of thesis research or makes suggestions inappropriate to the business Market opportunities either never arise or are lost No measurable business changes or improvements at the conclusion of the internship

Appendix F: First Cohort of the Masters of Science in Agribusiness Program at UR

Ayinkamye, Beatha

Imanizabayo, Emmanuel

Ingabire, Celmentine

Irambona, Bruce

Kabarungi, Mary

Kampayire, Olivier

Kubwimana, Jaques

Manishimwe, Rosine

Mbashimishe, Cecile

Mbitsemunda, Jean Pierre

Mugabo, Jean Marie Vianney

Mugabo, Valens

Mugisha Kagambira, Francis

Mutesi, Jonah

Niyitanga, William

Ntammbara, Damascene

Rugamba, Maurice

Twibanire, Adelaide

Umuhoza, Aline

Umunyana, Fionah

Umutesi, Liliane

Umuziranenge, Evelyne

Uwanyirigira, Alice

Uwera, M. Grace

Vuvuziga, Bridget

Appendix G: E-learning Workshop Results

E-Learning Workshop on Design and development of online courses
for
College of Agriculture, Animal Sciences and Veterinary Medicine - CAVM staff

Workshop report

Idembe Ltd , 2015

INTRODUCTION

In January 2015, IDEMBE Ltd was contracted by Michigan State University to train and assist the Academic and administrative staff from University of Rwanda/CAVM to develop the online courses for the benefit of their students. The training was part of the Michigan's state university program entitled "Women's Leadership in Agriculture". The combined series of workshops on design and development of online course was conducted at Nobleza Hotel in Kigali from 22/06/2015- 30/06/2015. The workshop objectives were met and led to positive outcomes that will be detailed in this report.

TRAINING TEAM

The workshop/ Training was conducted by two educational technologists, experienced in assisting both private and public institutions towards modernization of learning and teaching with ICT towards efficient capacity building of their staff and clients. Those trainers are Mr. Gilbert Munyemana from IDEMBE Ltd and Mr. Ben RUHINDA from the University of Rwanda.

WORKSHOP OBJECTIVES

The workshop aimed at achieving the following specific objectives:

Familiarize the UR staff with concepts related to online learning environment
Introduction to UR academic software, creating accounts, and uploading module content.
To explain the process of conception and development of online courses.
Unable participants to use effective pedagogical practices in eLearning environments, organizing module content into effective learning sequences, individual vs. group work, synchronic vs. asynchronic interactivity
Introducing interactive content, when and how to use media in course content audio, video, social.
Unable participants to use open educational resources.
Explain how to do effective assessment in on-line environments.

AGENDA OF THE WORKSHOP

The Workshop agenda was structures as below:

Day 1

Introduction
Overview on Educational Technology

What is Learning Management system?
Features of Moodle: Educational added values
Basics of Moodle
Getting started
Creating accounts
Customizing your profile
Managing files and folders

Day 2

Creating a course on Moodle
What is a course in Moodle
Creating a new course
Customizing course settings
Posting a course syllabus
Adding learning resources on Moodle
Adding new learning resources (Text , image , videos , etc)
Managing and updating Learning resources
Integrating Open Educational Resources in your Moodle course
Effective Learning Practice

Day 3

Creating collaboration (teacher/students) environment
Forum
Chat
Messaging
Blogs
Managing collaboration environment
Assessment in Moodle
Quiz
Assignment
Workshops
Managing Security and cheating issues

Day 4

Grading in Moodle
Gradebook overview
Creating a grade book
Grading assignments
Grading Online quiz
Grades reporting

Students Grade View
Managing your class
Understanding, using and assigning roles
Managing Enrollment Methods for your course
Enrolling and removing students/ adding and removing course facilitators
Students group
Backup and restoring courses
Generating class reports

Day 5

Surveys, choices and feedback
Creating and Managing surveys
Managing Feedbacks
Feedback templates and capabilities
Wrap up, Miscellaneous and Reflection

The workshop went for 7 days and the 2 days, which are not included on the agenda, have been used for assisted practice and for instruction on different tools used to create multimedia-learning materials. It provided a great opportunity to refine the courses developed by the lecturers and enrich their content.
PARTICIPANTS

The workshop was attended by 47 Academic and administrative staff from the University of Rwanda. Though some lecturers could be called for urgent purposes, the attendance has always been beyond 90%.

TRAINING WORKSHOP

The workshop/training was conducted in blended learning mode. It means that it combined both face-to-face and online learning modes. It was essential for the workshop to have face to face sessions as they were a lot of hands-on activities that needed to be supervised but also it has been a great experience for the learners (CAVM staff) to register on the IDEMBE E-learning platform and get enrolled in the course " *Design and development of online learning"* developed for them. It helped them to better understand the online learning environment and understand the difficulties that a student may face while taking their courses. Having an online student profile helped them to consider all factors that will lead to an efficient learning of their own students.

Below it is summary of what we managed to cover each day of the training.

Day one: We started with self-introduction and sharing expectations on the workshop and came up with common understanding of the training objectives. Before jumping into the content of the

workshop, facilitators conducted a prior knowledge assessment through a printed survey that had to be filled by learners. The survey helped to compare the learner's status before and after the training. The results are shared on annex 1.

After the survey, we defined E-learning and related concepts. The learners also got introduced to the E-learning platform that has been used for their online training part.

Day 2: The second day started with an exercise of creating an account on Moodle platform. The exercise was compared to the normal registration process that learners joining any institution do through. We also discussed different roles on online learning platforms. For effective online learning, we discussed in details different factors leading to successful e-learning programs. Trainees were granted a teaching role on the IDEMBE Online learning platform and learnt how to add learning material on the platform.

Day 3: On this day, learners were acquainted with the Moodle Virtual Learning platform and they were introduced to the UR E-learning platform where they created accounts and we assigned them the role of teachers. They learnt how to add different online collaboration and assessment tools

Day 4: Learners were excited by how powerful Moodle was and how it can help them creating effective online courses. They were given time to practice, structure their courses on the UR E-learning platform. They were also introduced to a useful and free tool called presentation tube that helped them to create Video cast for their courses.

Day 5: After learning how online assessment can be set and conducted, learners were trained on how to use the Gradebook tool integrated in Moodle. They also learnt how to administer their classes like enrolling and removing students, generating different learning reports, editing the course and son on.

Day 6: On sixth day, trainees were at the advanced level of Moodle users with the teacher profile and had a lot of material uploaded on the platform. To ensure that their content can be reused they learnt how to backup and restore courses.

Day 7: The last day of the training/workshop was used to explore and use different feedback tools. We also made a post training assessment of the user where we had the opportunity to compare the results of prior and post training knowledge. As detailed on ANNEX 1, the knowledge and confidence of participants on design and development of online learning has incredibly increased. We ended the training session with wrap up where participants were also given the chance to ask questions and clarify the persisting confusions.

In the afternoon, the training was officially closed by The WLP Project Manager- Dr. John William Medendorp and CAVM Principal Dr. NYINAWAMWIZA Leatitia. They were satisfied with the outcomes of the training but also the achievement of the project in general.
Outcome of the workshop

The workshop led to the following outcomes:

47 CAVM staff have been introduced to UR E-learning platform, created accounts and have been assigned the role of course creators.
The College structure have been made on the E-learning platform up to the level of departments reference to annex 4; (UR E-learning platform 'elearning.ur.ac.rw')
33 online courses have been created and categorized in their appropriate departments. Some participants created courses on IDEMBE Platform(http://idembe.com/training/) but not on the UR platform as they do not teach UR courses (They are administrative staff with no teaching commitments)
All participants completed the workshop with enough knowledge and confidence to create an effective online course including collaboration and assessment activities.
Every workshop participants created at least one multimedia based learning materials that will be integrated in their courses.
Increased motivation was also reflected in the post training assessment as workshop participants discovered how Moodle and other E-learning tools learnt in general can help them achieve more (on institutional and personal level) in their daily work.
RECOMMENDATIONS AND CONCLUSION

During the workshop, trainers had time to interact with participants on different issues including their thinking on the future of E-learning at UR. Trainers also had time to observe and think on the way forward after the training. From the above, we drew the following recommendations:

Lecturers should be encouraged to use the courses they have created for the benefit of their students and for themselves (efficiency purposes)
The process of enrolling the students may be tiresome for the lecturers and it is recommended that the Moodle administration team find a way to automatically enroll students in the courses they are supposed to learn each year. The use of LDAP or integration with MIS may help
Introduction and enforcement of the E-learning policy that should explain how lecturers with effective online courses would be rewarded.
Moodle is powerful as a system but it gets better with plugins made by the educators' community. We recommend to the Moodle administration team to investigate on useful plugins to enrich the UR virtual learning environment (e.g. Big bleubutton, feedback, etc.)
We recommend the management to encourage and recognize the lecturers who invest efforts increasing or improving their online courses

We recommend that UR /CAVM train the rest of the staff to ensure the combined effort towards improvement of teaching and learning within the college.

In concluding, we want to mention that the workshop was a great success due to the motivation of participants, interesting content and knowledgeable trainers and great planning and logistics team. The workshop objectives were all met and the outcomes are significantly positive. All the stakeholders should keep the momentum to transform CAVM into a leading UR college in the efficient use of technology in education. CAVM would then serve as a model to other colleges as it was a wish from the College principal, participants, project management and trainers.

ANNEXES

ANNEX 1: PRIOR AND POST WORKSHOP KNOWLEDGE ASSESSMENT
ANNEX 2: LIST OF PARTICIPANTS
ANNEX 3: COURSE SYLLABUS: DESING AND DEVELOPMENT OF ONLINE COURSES
ANNEX 4: UR E-LEARNING PLATFORM COURSE LAYOUT

Done in Kigali, 3th July 2015

Prepared and submit by

Educational technologists:

Mr. Gilbert MUNYEMANA & Mr. Ben RUHINDA

From IDEMBE Ltd from the University of Rwanda

ANNEX 1:

PRIOR AND POST WORKSHOP KNOWLEDGE ASSESSMENT / DESCRIPTIVE PERCENTAGE

1. Familiarity with concepts related to online learning environment

Prior

() 1. I am familiar with concepts related to online learning environment

- 1: . 8 (22.22 %)
- 2: . 1 (2.78 %)
- 3: . 9 (25.00 %)
- 4: . 3 (8.33 %)
- 5: . 9 (25.00 %)
- 6: . 6 (16.67 %)
- 7: . 0

Post

() 1. I am familiar with concepts related to online learning environment

- 1: . 0
- 2: . 0
- 3: . 0
- 4: . 1 (4.76 %)
- 5: . 2 (9.52 %)
- 6: . 12 (57.14 %)
- 7: . 6 (28.57 %)

2. Understanding the process of conception and development of online courses

Prior

() 2. I understand the process of conception and development of online courses

- 1: . 12 (33.33 %)
- 2: . 5 (13.89 %)
- 3: . 7 (19.44 %)
- 4: . 6 (16.67 %)
- 5: . 4 (11.11 %)
- 6: . 2 (5.56 %)

- 7: . 0

Post

() 2. I understand the process of conception and development of online courses

- 1: . 0
- 2: . 0
- 3: . 0
- 4: . 1 (4.76 %)
- 5: . 1 (4.76 %)
- 6: . 11 (52.38 %)
- 7: . 8 (38.10 %)

3. Awareness of requirements for an online learning to be successful and analysis of instructional media before using them for educational purposes

Prior

() 3. I am aware of requirements for an online learning to be successful and analyze instructional media before using them for educational purposes

- 1: . 9 (25.00 %)
- 2: . 6 (16.67 %)
- 3: . 9 (25.00 %)
- 4: . 6 (16.67 %)
- 5: . 3 (8.33 %)
- 6: . 3 (8.33 %)
- 7: . 0

Post

() 3. I am aware of requirements for an online learning to be successful and analyze instructional media before using them for educational purposes

- 1: . 1 (4.76 %)
- 2: . 0
- 3: . 0
- 4: . 1 (4.76 %)
- 5: . 6 (28.57 %)
- 6: . 8 (38.10 %)
- 7: . 5 (23.81 %)

4. The use different tools available in E-learning platform as well as others useful in making my online courses more effective and attractive

() 4. I can use different tools available in E-learning platform as well as others useful in making my online courses more effective and attractive

- 1: . 8 (22.22 %)
- 2: . 6 (16.67 %)
- 3: . 8 (22.22 %)
- 4: . 8 (22.22 %)
- 5: . 3 (8.33 %)
- 6: . 2 (5.56 %)
- 7: . 1 (2.78 %)

Post

() 4. I can use different tools available in E-learning platform as well as others useful in making my online courses more effective and attractive

- 1: . 0
- 2: . 0
- 3: . 0
- 4: . 0
- 5: . 4 (19.05 %)
- 6: . 12 (57.14 %)
- 7: . 5 (23.81 %)

5. Ability to develop an online course with some E-learning platform and use the course in teaching and Learning

() 5. I am able to Develop an online course with some E-learning platform and use the course in my teaching and Learning

- 1: . 15 (41.67 %)
- 2: . 8 (22.22 %)
- 3: . 3 (8.33 %)
- 4: . 5 (13.89 %)
- 5: . 5 (13.89 %)
- 6: . 0
- 7: . 0

POST

() 5. I am able to Develop an online course with some E-learning platform and use the course in my teaching and Learning

- 1: . 0
- 2: . 0
- 3: . 0
- 4: . 0
- 5: . 4 (19.05 %)
- 6: . 9 (42.86 %)
- 7: . 8 (38.10 %)

6. Aware of the UR E-learning platform

Prior
() 6. I am aware of the UR E-learning platform

- 1: . 9 (25.00 %)
- 2: . 7 (19.44 %)
- 3: . 8 (22.22 %)
- 4: . 5 (13.89 %)
- 5: . 4 (11.11 %)
- 6: . 2 (5.56 %)
- 7: . 1 (2.78 %)

Post
() 6. I am aware of the UR E-learning platform

- 1: . 0
- 2: . 1 (4.76 %)
- 3: . 0
- 4: . 0
- 5: . 1 (4.76 %)
- 6: . 6 (28.57 %)
- 7: . 13 (61.90 %)

7. The use the UR E-learning platform before

PRIOR
() 7. I have used the UR E-learning platform before

- 1: . 15 (41.67 %)
- 2: . 6 (16.67 %)
- 3: . 3 (8.33 %)
- 4: . 5 (13.89 %)
- 5: . 6 (16.67 %)
- 6: . 1 (2.78 %)
- 7: . 0

Post
() 7. I have used the UR E-learning platform before

- 1: . 13 (61.90 %)
- 2: . 4 (19.05 %)
- 3: . 0
- 4: . 0
- 5: . 1 (4.76 %)
- 6: . 2 (9.52 %)

- 7: . 1 (4.76 %)

8. Awareness of the UR E-journal and other educational Material resources directory

Prior

() 8. I am aware of the UR E-journal and other educational Material resources directory

- 1: . 10 (27.78 %)
- 2: . 5 (13.89 %)
- 3: . 4 (11.11 %)
- 4: . 6 (16.67 %)
- 5: . 6 (16.67 %)
- 6: . 4 (11.11 %)
- 7: . 1 (2.78 %)

Post

() 8. I am aware of the UR E-journal and other educational Material resources directory

- 1: . 3 (14.29 %)
- 2: . 8 (38.10 %)
- 3: . 0
- 4: . 1 (4.76 %)
- 5: . 7 (33.33 %)
- 6: . 1 (4.76 %)
- 7: . 1 (4.76 %)

9. The used the UR E-journal and other educational Material resources directory

Prior

() 9. I have used the UR E-journal and other educational Material resources directory

- 1: . 8 (22.22 %)
- 2: . 8 (22.22 %)
- 3: . 8 (22.22 %)
- 4: . 3 (8.33 %)
- 5: . 7 (19.44 %)
- 6: . 1 (2.78 %)
- 7: . 1 (2.78 %)

Post

() 9. I have used the UR E-journal and other educational Material resources directory

- 1: . 7 (33.33 %)
- 2: . 8 (38.10 %)
- 3: . 1 (4.76 %)
- 4: . 1 (4.76 %)
- 5: . 2 (9.52 %)
- 6: . 2 (9.52 %)
- 7: . 0

10. The use of Interactive tools (Video, social media, etc) to improve my teaching and Learning

Prior

() 10. I have used Interactive tools (Video, social media, etc) to improve my teaching and Learning

- 1: . 9 (25.00 %)
- 2: . 2 (5.56 %)
- 3: . 3 (8.33 %)
- 4: . 8 (22.22 %)
- 5: . 7 (19.44 %)
- 6: . 6 (16.67 %)
- 7: . 1 (2.78 %)

Post

() 10. I have used Interactive tools (Video, social media, etc) to improve my teaching and Learning

- 1: . 2 (9.52 %)
- 2: . 1 (4.76 %)
- 3: . 2 (9.52 %)
- 4: . 0
- 5: . 3 (14.29 %)
- 6: . 8 (38.10 %)
- 7: . 5 (23.81 %)

() 11. Ability to create an open multimedia Learning resource that is being used by others beyond my class

Prior

() 11. I have created an open multimedia Learning resource that is being used by others beyond my class

- 1: . 21 (58.33 %)
- 2: . 6 (16.67 %)
- 3: . 2 (5.56 %)
- 4: . 7 (19.44 %)
- 5: . 0
- 6: . 0

- 7: . 0

Post

() 11. I have created an open multimedia Learning resource that is being used by others beyond my class

- 1: . 6 (28.57 %)
- 2: . 4 (19.05 %)
- 3: . 1 (4.76 %)
- 4: . 3 (14.29 %)
- 5: . 2 (9.52 %)
- 6: . 4 (19.05 %)
- 7: . 1 (4.76 %)

12. Awareness of Open educational resources
Prior

() 12. I am aware of Open educational resources

- 1: . 13 (36.11 %)
- 2: . 2 (5.56 %)
- 3: . 4 (11.11 %)
- 4: . 5 (13.89 %)
- 5: . 9 (25.00 %)
- 6: . 3 (8.33 %)
- 7: . 0

Post

() 12. I am aware of Open educational resources

- 1: . 0
- 2: . 1 (4.76 %)
- 3: . 1 (4.76 %)
- 4: . 1 (4.76 %)
- 5: . 7 (33.33 %)
- 6: . 5 (23.81 %)
- 7: . 6 (28.57 %)

() 13. The use of Open educational resources in my teaching and learning process

Prior

() 13. I use Open educational resources in my teaching and learning process

- 1: . 11 (30.56 %)
- 2: . 6 (16.67 %)

- 3: . 4 (11.11 %)
- 4: . 6 (16.67 %)
- 5: . 8 (22.22 %)
- 6: . 1 (2.78 %)
- 7: . 0

Post

() 13. I use Open educational resources in my teaching and learning process

- 1: . 4 (19.05 %)
- 2: . 2 (9.52 %)
- 3: . 2 (9.52 %)
- 4: . 1 (4.76 %)
- 5: . 6 (28.57 %)
- 6: . 3 (14.29 %)
- 7: . 3 (14.29 %)

14. Awareness of online or any other electronic assessment system

Prior

() 14. I am aware of online or any other electronic assessment system

- 1: . 10 (27.78 %)
- 2: . 5 (13.89 %)
- 3: . 1 (2.78 %)
- 4: . 6 (16.67 %)
- 5: . 13 (36.11 %)
- 6: . 1 (2.78 %)
- 7: . 0

Post

() 14. I am aware of online or any other electronic assessment system

- 1: . 0
- 2: . 0
- 3: . 1 (4.76 %)
- 4: . 2 (9.52 %)
- 5: . 3 (14.29 %)
- 6: . 8 (38.10 %)
- 7: . 7 (33.33 %)

() 15. The use of online or any other electronic assessment system

Prior

() 15. I have used online or any other electronic assessment system

- 1: . 11 (30.56 %)
- 2: . 4 (11.11 %)
- 3: . 4 (11.11 %)
- 4: . 3 (8.33 %)
- 5: . 12 (33.33 %)
- 6: . 2 (5.56 %)
- 7: . 0

Post

() 15. I have used online or any other electronic assessment system

- 1: . 5 (23.81 %)
- 2: . 1 (4.76 %)
- 3: . 2 (9.52 %)
- 4: . 1 (4.76 %)
- 5: . 1 (4.76 %)
- 6: . 6 (28.57 %)
- 7: . 5 (23.81 %)

16. Subscription for an online course to increase own knowledge

Prior

() 16. I have subscribed for an online course to increase my knowledge

- 1: . 17 (47.22 %)
- 2: . 6 (16.67 %)
- 3: . 3 (8.33 %)
- 4: . 3 (8.33 %)
- 5: . 3 (8.33 %)
- 6: . 3 (8.33 %)
- 7: . 1 (2.78 %)

Post

() 16. I have subscribed for an online course to increase my knowledge

- 1: . 5 (23.81 %)
- 2: . 3 (14.29 %)
- 3: . 0
- 4: . 1 (4.76 %)
- 5: . 0
- 6: . 7 (33.33 %)

- 7: . 5 (23.81 %)

() 17. I am aware of MOOCs (Massive Open Online courses)

Prior

() 17. Awareness of MOOCs (Massive Open Online courses)

- 1: . 22 (61.11 %)
- 2: . 2 (5.56 %)
- 3: . 6 (16.67 %)
- 4: . 3 (8.33 %)
- 5: . 3 (8.33 %)
- 6: . 0
- 7: . 0

Post

() 17. I am aware of MOOCs (Massive Open Online courses)

- 1: . 3 (14.29 %)
- 2: . 4 (19.05 %)
- 3: . 1 (4.76 %)
- 4: . 2 (9.52 %)
- 5: . 5 (23.81 %)
- 6: . 1 (4.76 %)
- 7: . 5 (23.81 %)

18. Using or referencing to MOOCs in own learning and teaching

Prior

() 18. I have used or referenced to MOOCs in my learning and teaching

- 1: . 22 (61.11 %)
- 2: . 3 (8.33 %)
- 3: . 5 (13.89 %)
- 4: . 4 (11.11 %)
- 5: . 2 (5.56 %)
- 6: . 0
- 7: . 0

Post

() 18. I have used or referenced to MOOCs in my learning and teaching

- 1: . 8 (38.10 %)
- 2: . 3 (14.29 %)
- 3: . 1 (4.76 %)

- 4: . 2 (9.52 %)
- 5: . 3 (14.29 %)
- 6: . 1 (4.76 %)
- 7: . 3 (14.29 %)

19. Believing that the use of ICT can improve my learning and teaching process

Prior

() 19. I believe that the use of ICT can improve my learning and teaching process

- 1: . 4 (11.11 %)
- 2: . 1 (2.78 %)
- 3: . 1 (2.78 %)
- 4: . 1 (2.78 %)
- 5: . 6 (16.67 %)
- 6: . 4 (11.11 %)
- 7: . 19 (52.78 %)

Post

() 19. I believe that the use of ICT can improve my learning and teaching process

- 1: . 0
- 2: . 0
- 3: . 0
- 4: . 0
- 5: . 0
- 6: . 3 (14.29 %)
- 7: . 18 (85.71 %)

20. Availability of equipment and support to assist lecturers in developing online course and other multimedia learning materials

Prior

() 20. I have enough equipment and support to assist me in developing online course and other multimedia learning materials

- 1: . 5 (13.89 %)
- 2: . 4 (11.11 %)
- 3: . 3 (8.33 %)
- 4: . 9 (25.00 %)
- 5: . 12 (33.33 %)
- 6: . 1 (2.78 %)
- 7: . 2 (5.56 %)

Post

() 20. I have enough equipment and support to assist me in developing online course and other multimedia learning materials

- 1:	1 (4.76 %)
- 2:	2 (9.52 %)
- 3:	0
- 4:	4 (19.05 %)
- 5:	2 (9.52 %)
- 6:	6 (28.57 %)
- 7:	6 (28.57 %)

IDEMBE LTD
World Class Educational Technology Company
2015

Design and Development of Online course with Moodle

Facilitators:

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Phone: + 250 0788861830

I. INTRODUCTION

The course is designed for teachers and other people who need to be familiar with Moodle and use it in their teaching and learning process. The efficient use of E-learning platform, a set of electronic tools used to deliver education remotely, is one of the most important elements to be considered if online learning is to be successful. Thus, those who intend to start E-learning education need to be trained not only on how to use E-learning platform (Moodle) tools but also on pedagogical principles guiding online learning practices. This course will consider both technical and pedagogical aspects.

II. COURSE OBJECTIVES

This course will enable the learners:

To be familiar with concepts related to online learning environment
To understand the process of conception and development of online courses.
To be aware of requirements for an online learning to be successful and analyze instructional media before using them for educational purposes
To use different tools available in Moodle platform as well as others useful in making their online courses more effective and attractive
Develop their courseware (online course) with Moodle and use it in their teaching and Learning

III. GENERAL READING

Cole, J. (2005). *Using Moodle: Teaching with the popular open source management system*. 2nd edition. O'reilly 2005. USA.
Laurillard, D. (2008). *Rethinking university teaching*, 2nd edition. RoutledgeFarmer 2008.

Khan, B. (2005). *E-learning : Quick check list*, . Information Science Publishing. USA 2005.

IV. TEACHING/ LEARNING METHODS

The course will entirely be online. The course requires interaction and participation of both learners and lecturers/facilitator. Learners are required to participate on forum or chat discussions as it constitute the part of learning process. You will be expected to read the indicated readings and watch uploaded video tutorials on each chapter before you undertake hands on or any assessment activities.

The course is accessible at www.idembe.com/training. With assistance of the course facilitators, you create an account and unroll into the course, the E-learning platform administrator will grant you a course creator privilege. That privilege will help you to exercise and carry out the practice required as part of assignment.

The course will mainly base on a two popular Moodle books namely "*Using Moodle: Teaching with the popular open source management system*. 2nd edition." and *How to use Moodle 2.7, Teacher's Manual for the world's most popular LMS. 1st Edition.*

The complete books are freely accessible from
http://download.moodle.org/download.php/docs/en/using_moodle_2e.zip and
http://www.moodlenews.com/2014/free-book-how-to-use-moodle-2-7-360-pages-of-moodle/

The student will learn at his/her own pace, it implies that there is no timetable for the course. However the course is designed in a way that it may be completed in 10 days if a student spends at least 5 hours per day.

V. OVERVIEW OF THE COURSE

The course is organized in 8 chapters; the summary of each chapter is given below:

Chapter 1: Introduction and overview on E-Learning

This chapter will help you to have a general understanding of online learning namely the theoretical and philosophical background of this new way of delivering knowledge. The terminology used in Virtual learning environment, advantages and disadvantages related to E-learning will also be discussed. This first part of the course will serve as an eye opener and myth remover for academicians or other learners who were not aware of E-learning practices.

Chapter 2: Getting started with Moodle

This chapter will focus on describing Moodle platform, one of the course management systems used to make E-learning possible. Its functionalities and potentials to serve learning and teaching process in online environment will be explored. It will provide you with a broad understanding of the E-learning platform in general and Moodle in particular.

Chapter 3: Effective Design of an online course

To create a meaningful open, flexible and distributed learning environment for diverse learners, we must explore important issues encompassing various dimensions of e-learning environment. This chapter will discuss issues related to what it takes to develop an effective online course.

Chapter 4: Creating and managing online learning content

This chapter will start with an exploration of the Moodle interface, which will be followed by explanations on how to add and manage content (resources and activities) on Moodle platform. Through an "add resource and activity' drop down menu the course creator or another person whose editing privilege on platform is granted can add resources of different kind. Content can be added as webpages, link to file or website, etc.

Chapter 5: Collaborative tools in online learning process

Learning process involves the interaction between students and teachers, in virtual learning environment students interact with teachers through electronic educational media. This chapter will discuss collaborative tools used to facilitate the dialogue between teachers and students or students among them selves

Chapter 6: Online assessment tools

Assessment as one of the important step in learning process must be considered while designing and developing online course. This chapter will describe Moodle's assessment and grading tools. It will discuss on how these tools can be used to assist in successfully carrying out the assessment activities.

Chapter 7: Wikis, Lessons and Blogs

Besides tools which facilitate to add content and conduct assessment activities in virtual learning environment, Moodle provides other tools to support the collaborative learning/teaching process. Chapter 7 will explain and describe Wikis, lessons and blogs.

Chapter 8: Glossaries and Surveys

This chapter will explain and show how Moodle tools can help students to make their contribution for the course improvement. Learners will learn from this chapter how to create Glossaries and surveys for an online course.

Chapter 9: Creating and managing online Class

Creating online class requires the integration of different tools in service of an effective online course. This chapter will discuss how course creators should organize tools to achieving learning objectives according to the course type.

Chapter 10: Moodle administration

In Moodle, there are different users depending on their privileges on the platform. Teachers have different tools which allow them to create and organize their courses while students have limited access as far as course content is concerned. Administrators have all privileges on the platform and thus they need extra skills on the use of the platform. This chapter will discuss the Moodle administration.

V. ASSESSMENT

Assessment will be of four types

Reflection papers: You will be expected to submit papers of between 100 and 150 words that will clarify the design of your courseware. Basing on pedagogical principles discussed in provided readings and other valuable resources, you will reflect on and justify your design decisions. Reflection paper will be submitted at the end of specific chapters and described below.
Practice activities: Practice activities aim to improve skills of learners on how to use Moodle platform. After submitting the reflection paper, you will be granted permission to create and develop your courseware progressively. You will have the full access to your course and will be able to do as more practice, as you want till you complete the creation of your online course.
Quizzes: These are automated and built-in assessment tools which include multiple choice tests, matching, or short answer questions. They can allow instant grading.
Participation: learners will be awarded for being active and effective in class discussions.

All Learners will be expected to carry out assessments activities organized as follows:

Chapter 1-2 :

Quiz : Multiple choice Questions
Reflection paper 1: Describe Moodle tools and illustrate how they will help you in developing your courseware.

Chapter 3-4:

Reflection Paper 2: Elaborate the syllabus of your courseware. The syllabus has to include a brief description of each of your chapter/ chapters specify learning and Assessment activities for the course. Refer to the link to the template provided on the courseware.
Practice activity 1: After creating your Moodle account, add chapters/ chapters along with their brief descriptions

Chapter 5:
Practice activity 2: Create chat room and forums to discuss on a subject of your choice, Invite classmates to participate and moderate the discussions.

Chapter 6:
- *Practice activity 2*: Create quizzes and assignment for your students as you planned in the course syllabus. c

Chapter 7:
Practice activity 3: Design a Wiki or a blog and add content for a topic of your choice. Afterwards, design and develop an online assessment activities related to the content of your topic.

At the end of Chapter 9:
Practice activity 4-Final Exam: You will be asked to use different Moodle tools to develop a complete online course and Make it available to students. The courseware will be evaluated basing on criteria grouped under 4 rubrics: Online Organization & design, Instructional Design & delivery, Assessment & evaluation of student learning and Appropriate & effective use of technology.

Participation :

Each learner's contributions in online discussions will be evaluated and awarded on basis of quality and quantity.

VI. SATISFACTORY PERFORMANCE REQUIREMENTS

Participation in online discussions, submission of required papers with outstanding quality along with a sound design and development of a complete online course constitute the satisfactory performance in this course.

Kigali, June 2015
IDEMBE LTD

ANNEX 2:

LIST OF PARTICIPANTS THE E-LEARNING TRAINING UNDER THE WOMEN LEADERSHIP PROGRAM IN AGRICULTURE

NAME	CAMPUS	SCHOOL
1. UWANYIRIGIRA JEANNINE	Busogo	SAEEM
2. UWIHIRWE JUDITH	Busogo	SAEEM
3. JENNIFER ANNENA	NYAGATARE	SAEEM
4. HARERIMANA LEONCE	NYAGATARE	SAEEM
5. KASANZIKI CHARLES	HUYE	SAEEM
6. CHINAMA RUSIZANA	BUSOGO	SARDAE
7. KENYANGI ALPHONSINE	HUYE	SARDAE
8. TUYISHIME OLIVE	BUSOGO	SARDAE
9. SENYANZOBE JMV	BUSOGO	SAEEM
10. GATESI Julienne	NYAGATARE	
11. Dr. NGABITSINZE Jean Chrysostome	RUBIRIZI	SARDAE
12. NKURUNZIZA ISSA	HUYE	SARDAE
13. URUJENI SANDRINE	HUYE	SARDAE
14. KABAYIZA ALEXIS	RUBIRIZI	SARDAE
15. NIYONZIMA JEAN PIERRE	BUSOGO	SARDAE
16. Dr. KARANGWA ANTOINE	RUBIRIZI	SARDAE
17. Dr. MUGENZI MARTIN	HUYE	CBE
18. UGIRABE AURORE	BUSOGO	SASVM
19. GATARI CALLIXTE	HUYE	
20. DUKUZE MARIE FAUSTA	NYAGATARE	SASVM
21. Dr. RUKERA TABARO SIMON	HUYE	SASVM
22. KAMBABAZI MARIE ROSE	NYARUGENGE	SFST
23. KARAYIRE AULARIA	NYARUGENGE	SFST
24. NDWANIYE FRANCOIS	BUSOGO	SARDAE
25. SURESH KUMAR PANDE	BUSOGO	SAEEM
26. Dr. BITWAYIKI CLEMENT	NYARUGENGE	SFST
27. RWASAMANZI ERIC	BUSOGO	SARDAE
28. Dr. HAMUDU RUKANGANTAMBARA	HUYE	SARDAE
29. KABARUNGI MARY	HUYE	SASVM
30. Dr. KAREGE Callixte	HUYE	SASVM
31. MPATSWENUMUGABO Jean Pierre	NYAGATARE	SASVM
32. MUSABWAYIRE Consolée	BUSOGO	CAREER GUIDANCE

33. MUGENI Marie Claire	BUSOGO	
34. UWAMARIYA VENERANDA	HUYE	
35. SYLVIE UWAMAHORO	RUBIRIZI	
36. NUBUHORO NKUNDAKOZERA	NYAGATARE	
37 MUSAFIRI ILDEPHONSE	HUYE	
38. MARTIN MUGENZI	HUYE	SARDAE
39. CHANTAL MUREKATETE	BUSOGO	AA
40. FIDELE NIYITANGA	BUSOGO	SARDAE
41. NIYIBIZI LEON	NYAGATARE	SASVM
42. UWERA MARIE GRACE	RUBIRIZI	TECHNOLOGY TRANSFER
43. NDAHETUYE JEAN BAPTISTE	KIGALI	SFST
44. GERTRUDE	BUSOGO	FACILITATOR
45. OLIVIER	KIGALI	FACILITATOR
46. GODEBERTHE	HUYE	SARDAE
47. MURINGA		

ANNEX 4 : COURSE LAYOUT ON THE UR E-learning platform

UR E-Learning Platform

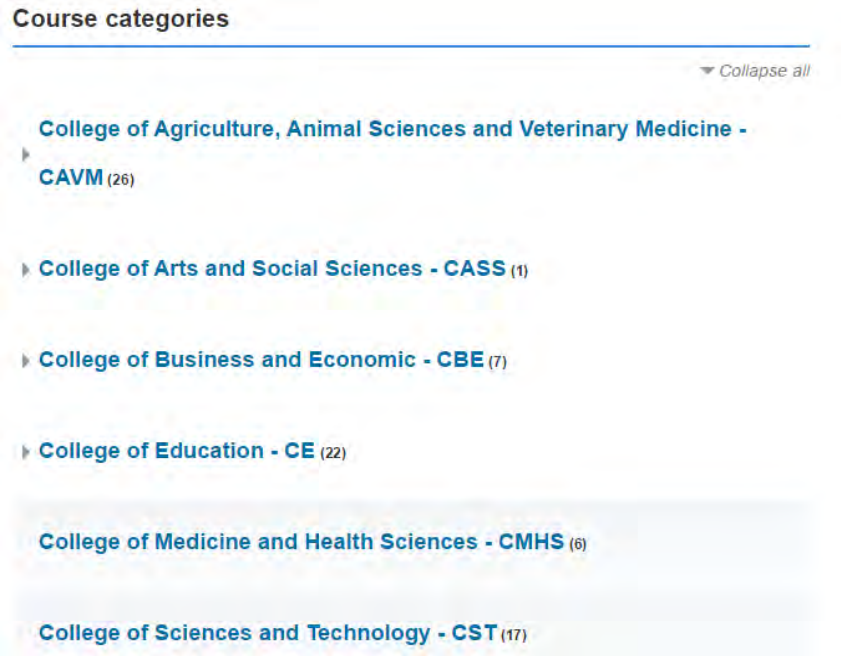

Figure 19: UR Elearning Platform -CAVM (section), 2015-07-04

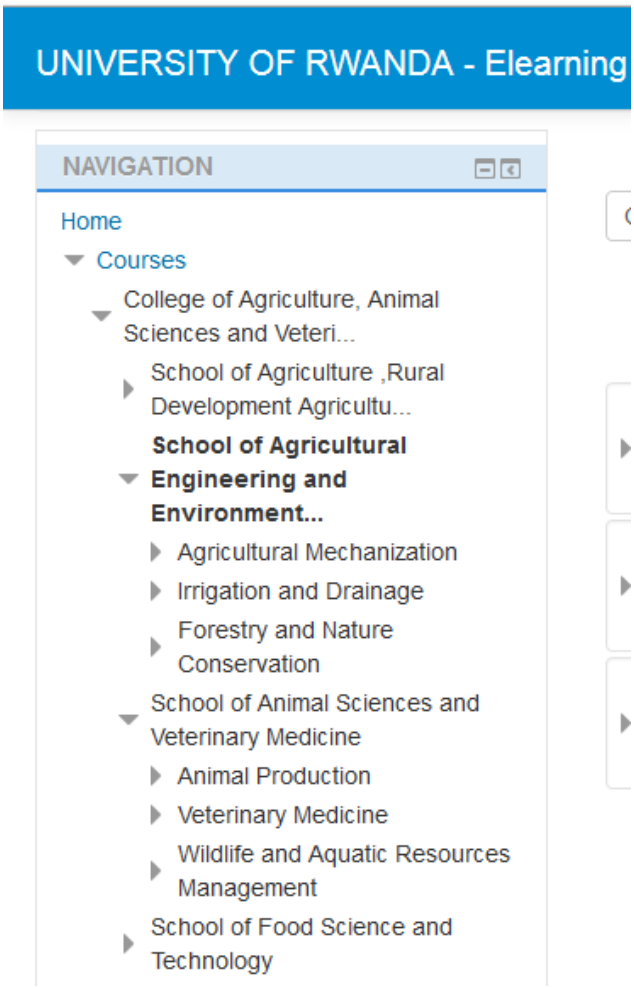

Figure 20: CAVM Structure into Schools on Elearning Platform

E-learning Platform on Idembe

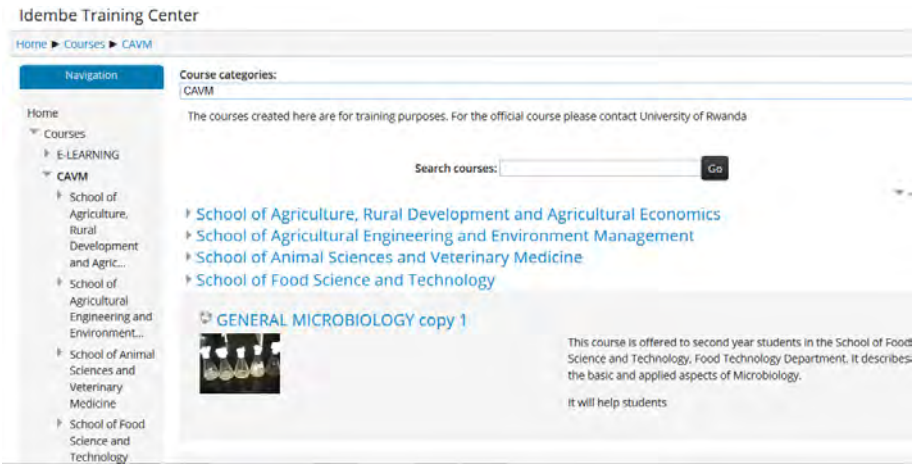

Figure 21: Elearning Platform on Idembe (training portal) 2015-07-04

Appendix H: Baseline, Annual, and Project Closing Indicator Achievement

BASELINE		TARGETS				
Baseline Information Elements and Data Values **[Data shall be collected and reported at the level of analysis for all these standard indicators.]**		**Year 1 Target**	**Year 2 Target**	**Year 3 Target**	**END OF PROJECT TOTAL TARGETS**	**ACTUALS**
Policies and/or procedures that support increased access of underserved and/or disadvantaged groups to tertiary education programs currently in effect						
# of admission procedures policies/procedures	0	# of new or improved policies and/or procedures planned	# of new or improved policies and/or procedures planned	# of new or improved policies and/or procedures planned	Projected total # of new or improved policies and/or procedures planned	Actual total # of new or improved policies and/or procedures planned

# of testing policies/procedures	0					
# of conditional access policies/procedures	0	1	0	0	***1***	1
# of policies/procedures supporting remedial programs/courses	0					
# of other relevant/appropriate policies/procedures	0					

Total this indicator:	***0***										
D											
Individuals offered admission to tertiary education programs in the last three academic years							Planned # of students from underserved and/or disadvantaged groups offered admission to tertiary education programs	Planned # of students from underserved and/or disadvantaged groups offered admission to tertiary education programs	Planned # of students from underserved and/or disadvantaged groups offered admission to tertiary education programs	Projected total planned # of students from underserved and/or disadvantaged groups offered admission to tertiary education programs	Actual total # of students from underserved and/or disadvantaged groups offered admission to tertiary education programs
***All individuals* offered admission to tertiary education programs in the last three academic years**	**Female**	**Male**				**Total**					
# of all individuals offered admission to	***0***	**0**				***0***					

academic certificate programs											
# of all individuals offered admission to associate degree programs	***0***	**0**				***0***					
# of all individuals offered admission to bachelor degree	***0***	**0**				***0***					

programs											
# of all individuals offered admission to master's degree programs	***2***	**5**				***7***					
# of all individuals offered admission to doctorate degree	***0***	0				***0***					

programs											
Total # of all individuals offered admission:	***2***	***5***				***7***					
Individuals from underserved and/or disadvantaged groups offered admission to tertiary	**Female**	**Male**				**Total**	0	0	13	***10***	13

education programs in the last three academic years											
# of underserved and/or disadvantaged individuals offered admission to academic certificate	***0***	**0**				***0***					

programs											
# of underserved and/or disadvantaged individuals offered admission to associate degree programs	***0***	**0**				***0***					

# of underserved and/or disadvantaged individuals offered admission to bachelor degree programs	***0***	**0**				***0***					
# of underserved and/or disadvantaged individuals offered admission to	***2***	**0**				***2***					

master's degree programs											
# of underserved and/or disadvantaged individuals offered admission to doctorate degree programs	***0***	0				***0***					

Total # of underserved and/or disadvantaged individuals offered admission:	***2***	***0***				***2***					
Total this indicator as a % of total:	***29 %***	***0 %***				***29 %***					

Curricula developed and/or revised in the last three academic years		# of planned curricula to be newly developed and/or revised	# of planned curricula to be newly developed and/or revised with	% of planned curricula to be newly developed and/or	# of planned curricula to be newly developed and/or revised	# of planned curricula to be newly developed and/or revised with	% of planned curricula to be newly developed and/or	# of planned curricula to be newly developed and/or revised	# of planned curricula to be newly developed and/or revised with	% of planned curricula to be newly developed and/or	Total # of planned curricula to be newly developed and/or revised	Total # of planned curricula to be newly developed and/or revised	Projected overall % of planned curricula to be newly	Actual overall % of planned curricula to be newly developed and/or revised with private and/or public sector employers' input or on the basis of market research
Total # of all curricula developed and/or revised	0													

# of curricula developed and/or revised with private and/or public sector employers' input or on the basis of market research	0		private and/or public sector employers' input or on the basis of market research	revised with private and/or public sector employers' input or on the basis of market research		private and/or public sector employers' input or on the basis of market research	revised with private and/or public sector employers' input or on the basis of market research		private and/or public sector employers' input or on the basis of market research	revised with private and/or public sector employers' input or on the basis of market research		with private and/or public sector employers' input or on the basis of market research	developed and/or revised with private and/or public sector employers' input or on the basis of market research	
Total this indicator as a % of total:	***0%***	1	1	0	0	0	100	0	0	0	***1***	***1***	***100***	***100***

Academic certificates and/or degree programs currently offered that include experiential and/or applied learning opportunities		# of academic degree programs supported through the partnership	# of academic degree programs supported through the partnership that will include for the first time experiential and/or applied learning opportunities	% of planned academic degree programs that will include for the first time experiential and/or applied learning opportunities	# of academic degree programs supported through the partnership	# of academic degree programs supported through the partnership that will include for the first time experiential and/or applied learning opportunities	% of planned academic degree programs that will include for the first time experiential and/or applied learning opportunities	# of academic degree programs supported through the partnership	# of academic degree programs supported through the partnership that will include for the first time experiential and/or applied learning opportunities	% of planned academic degree programs that will include for the first time experiential and/or applied learning opportunities	Total # of academic degree programs supported through the partnership	Total # of academic degree programs supported through the partnership that will include for the first time experiential and/or applied learning opportunities	Projected overall % of academic degree programs supported through the partnership that will include for the first time experiential and/or applied lear	Actual overall % of academic degree programs supported through the partnership that will include for the first time experiential and/or applied learning opportunities
Total # of all academic certificate and/or degree programs offered	1													
# of academic certificate and/or degree programs currently offered that include experi	0													

ential and/or applied learning opportunities													ning opportunities	
Total this indicator as a % of total:	***0%***	0	0	0	1	1	100	0	0	0	***1***	***1***	***100***	***100***
Total # of community outreach/extension activities that occurred in the	22	# of outreach/extension activities planned			# of outreach/extension activities planned			# of outreach/extension activities planned			Total # of outreach/extension activities planned			Actual total # of outreach/extension activities planned
		4			6			9			19			6

last academic year						
# of academic certificates and/or degree programs currently offered at the host-country institution	***1***	# of planned new academic certificates and/or degree programs	# of planned nnew academic certificates and/or degree programs	# of new academic certificates and/or degree programs	Total # of planned new academic certificates and/or degree programs	Actual # of planned new academic certificates and/or degree programs
		0	1	0	1	1
Joint research initiatives undertaken in the last three academic years						
Total # of all research initiatives	35	# of joint research projects planned	# of joint research projects planned	# of joint research projects planned	Total # of joint research projects planned	Actual # of joint research projects planned

under taken						
# of research initiatives that were jointly under taken between an U.S. tertiary education institution and the host-country institution	7	0	2	2	4	4
Total this indicator as	***0.2***					

a % of total:																
Research projects whose findings have been applied, replicated, or taken to market undertaken in the last three academic years		# of new research projects planned	# of new research projects planned whose findings are to be applied, replicated, or taken to market	% of new research projects planned whose findings are to be applied, replicated, or taken to market	# of new research projects planned	# of new research projects planned whose findings are to be applied, replicated, or taken to market	% of new research projects planned whose findings are to be applied, replicated, or taken to market	# of new research projects planned	# of new research projects planned whose findings are to be applied, replicated, or taken to market	% of new research projects planned whose findings are to be applied, replicated, or taken to market	Total # of new research projects planned	Total # of new research projects planned whose findings are to be applied, replicated, or taken to market	Total % of new research projects planned whose findings are to be applied, replicated, or taken to market	Actual # of new research projects planned	Total # of new research projects planned whose findings are to be applied, replicated, or taken to market	Total % of new research projects planned whose findings are to be ap
Total # of all research projects undertaken	35															
# of research projects undertaken whose findings have been applied, replicated, or taken	0															

to market																		plied, replicated, or taken to market
Total this indicator as a % of total:	***0%***						0	0	0	4	0	0	4	0	0	***8***	***0***	***0***	***8***	***0***	***0***
Host-country institution faculty and/or teaching staff	**Female**	**Male**	**Total**	**Female**	**Male**	**Total**	Planned # of host-country institution faculty/teaching staff enrolling in long-term training programs			Planned # of host-country institution faculty/teaching staff enrolling in long-term training programs			Planned # of host-country institution faculty/teaching staff enrolling in long-term training programs			Total planned # of host-country institution faculty/teaching staff enrolling in long-term training programs					

enrolled in long-term training programs in the last three academic years											
academic certificate programs	0	0	***0***	0	0	***0***					

ssociate degree programs	0	0	***0***	0	0	***0***					
achelor degree programs	0	0	***0***	0	0	***0***					

aster's degree programs	1	2	***3***	0	0	***0***	0	0	0	***0***	0
octorate degree programs	0	0	***0***	0	0	***0***					

ther long-term training programs such as, joint student or faculty exchange, training as part of a joint research project, or other training programs	0	0	***0***	0	0	***0***					
Total this indicator:	***1***	***2***	***3***	***0***	***0***	***0***					

Host-country institution individuals (faculty/teaching staff, students, and administrative/other staff) who completed long-term training programs in the last three academic years							Planned # of host-country institution individuals completing long-term training programs - -- **Faculty and/or Teaching Staff** -- agricultural productivity or food	Planned # of host-country institution individuals completing long-term training programs - **--** **Faculty and/or Teaching Staff** -- OTHER THAN agricultural productivi	TOTAL TARGET FOR LONG TERM TRAINING **Faculty and/or Teaching Staff**	Planned # of host-country institution individuals completing long-term training programs - -- **Faculty and/or Teaching Staff** -- agricultural productivity or food	Planned # of host-country institution individuals completing long-term training programs - **--** **Faculty and/or Teaching Staff** -- OTHER THAN agricultural productivi	TOTAL TARGET FOR LONG TERM TRAINING **Faculty and/or Teaching Staff**	Planned # of host-country institution individuals completing long-term training programs - -- **Faculty and/or Teaching Staff** -- agricultural productivity or food	Planned # of host-country institution individuals completing long-term training programs - **--** **Faculty and/or Teaching Staff** -- OTHER THAN agricultural productivi	TOTAL TARGET FOR LONG TERM TRAINING **Faculty and/or Teaching Staff**	Planned # of host-country institution individuals completing long-term training programs - -- **Faculty and/or Teaching Staff** -- agricultural productivity or food	Planned # of host-country institution individuals completing long-term training programs - **--** **Faculty and/or Teaching Staff** -- OTHER THAN agricultural productivi	TOTAL TARGET FOR LONG TERM TRAINING **Faculty and/or Teaching Staff**	
	Long term training in agricultural productivity or food security			**Long term training other than agricultural productivity or food security**															
# of host-country institution *faculty/teaching staff* who completed long-term	Female	Male	Total	Female	Male	Total													

training programs in the last three academic years							security	ty or food security		security	ty or food security		security	ty or food security		security	ty or food security		
academic certificate programs	0	0	***0***	0	0	***0***													

ssociate degree programs	0	0	***0***	0	0	***0***													
achelor degree programs	0	0	***0***	0	0	***0***													

aster's degree programs	1	2	***3***	0	0	***0***													
octorate degree programs	1	4	***5***	0	0	***0***													

ther long-term training programs such as, joint student or faculty exchange, training as part of a joint research project, or other training programs	0	0	***0***	0	0	***0***														
Subtotal (faculty/te	***2***	***6***	***8***	***0***	***0***	***0***														

achin g staff):																			
# of host-country institution *students* who <u>completed</u> long-term training programs in the last three academic years	**Female**	**Male**	**Total**	**Female**	**Male**	**Total**	0	0	0	0	0	0	0	0	0	0	0	0	0

cademic certificate programs	0	0	***0***	0	0	***0***	Planned # of host-country institution individuals completing long-term training programs -- **Individuals Other Than Faculty/teaching Staff** -- agricultural productivity or	Planned # of host-country institution individuals completing long-term training programs -- **Individuals Other Than Faculty/teaching Staff** -- OTHER THAN agricultur	TOTAL TARGET FOR LONG TERM TRAINING **Individuals Other Than Faculty/teaching Staff**	Planned # of host-country institution individuals completing long-term training programs -- **Individuals Other Than Faculty/teaching Staff** -- agricultural productivity or	Planned # of host-country institution individuals completing long-term training programs -- **Individuals Other Than Faculty/teaching Staff** -- OTHER THAN agricultur	TOTAL TARGET FOR LONG TERM TRAINING **Individuals Other Than Faculty/teaching Staff**	Planned # of host-country institution individuals completing long-term training programs -- **Individuals Other Than Faculty/teaching Staff** -- agricultural productivity or	Planned # of host-country institution individuals completing long-term training programs -- Individuals Other Than Faculty/teaching Staff -- OTHER THAN agricultur	TOTAL TARGET FOR LONG TERM TRAINING **Individuals Other Than Faculty/teaching Staff**	Planned # of host-country institution individuals completing long-term training programs -- **Individuals Other Than Faculty/teaching Staff** -- agricultural productivity or	Planned # of host-country institution individuals completing long-term training programs -- **Individuals Other Than Faculty/teaching Staff** -- OTHER THAN agricultur	TOTAL TARGET FOR LONG TERM TRAINING **Individuals Other Than Faculty/teaching Staff**	
ssociate degree programs	0	0	***0***	0	0	***0***													

achelor degree programs	282	697	***979***	0	0	***0***	food security	al productivity or food security		food security	al productivity or food security		food security	al productivity or food security		food security	al productivity or food security		
aster's degree programs	0	0	***0***	0	0	***0***													

octor ate degre e progr ams	0	0	***0***	0	0	***0***													

ther long-term training programs such as, joint student or faculty exchange, training as part of a joint research project, or other training programs	0	0	***0***	0	0	***0***													
Subtotal (students):	***282***	***697***	***979***	***0***	***0***	***0***													

# of host-country institution *administrative/other staff* <u>who completed</u> long-term training programs in the last three academic years	**Female**	**Male**	**Total**	**Female**	**Male**	**Total**													

cademic certificate programs	0	0	***0***	0	0	***0***													
ssociate degree programs	0	0	***0***	0	0	***0***													

achelor degree programs	0	0	***0***	0	0	***0***													
aster's degree programs	0	1	***1***	0	0	***0***													

octor ate degre e progr ams	0	0	***0***	0	0	***0***													

ther long-term training programs such as, joint student or faculty exchange, training as part of a joint research project, or other training programs	0	0	***0***	0	0	***0***	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (administra	***0***	***1***	***1***	***0***	***0***	***0***													

tive/other staff):																				
Total faculty + students + admin/other staff:	***284***	***704***	***988***	***0***	***0***	***0***														
OVERALL TOTAL FOR Training - Long Term (B. Completed) INDICATOR:	**Males:**	**704**	**Females:**	**284**	**TOTAL:**	**988**														

Host-country institution individuals who completed short-term training in the last three academic years **--- SHORTT-TERM TRAINING IN AGRICULTURAL PRODUCTIVITY OR FOO**	**Female**	**Male**	**Total**	Planned # of host-country institution individuals (faculty/teaching staff, students, and administrative/other staff) completing short-term training --- SHORT-TERM TRAINING IN AGRI	Planned # of host-country institution individuals (faculty/teaching staff, students, and administrative/other staff) completing short-term training --- ANY OTHER TYPE OF SHORT-	TOTAL TARGET FOR SHORT TERM TRAINING	Planned # of host-country institution individuals (faculty/teaching staff, students, and administrative/other staff) completing short-term training --- SHORT-TERM TRAINING IN AGRI	Planned # of host-country institution individuals (faculty/teaching staff, students, and administrative/other staff) completing short-term training --- ANY OTHER TYPE OF SHORT-	TOTAL TARGET FOR SHORT TERM TRAINING	Planned # of host-country institution individuals (faculty/teaching staff, students, and administrative/other staff) completing short-term training --- SHORT-TERM TRAINING IN AGRI	Planned # of host-country institution individuals (faculty/teaching staff, students, and administrative/other staff) completing short-term training --- ANY OTHER TYPE OF SHORT-	TOTAL TARGET FOR SHORT TERM TRAINING	Planned # of host-country institution individuals (faculty/teaching staff, students, and administrative/other staff) completing short-term training --- SHORT-TERM TRAINING IN AGRI	Planned # of host-country institution individuals (faculty/teaching staff, students, and administrative/other staff) completing short-term training --- ANY OTHER TYPE OF SHORT-	TOTAL TARGET FOR SHORT TERM TRAINING	Actual # of host-country institution individuals (faculty/teaching staff, students, and administrative/other staff) completing short-term training --- SHORT-TERM TRAINING IN AGRICULT	Planned # of host-country institution individuals (faculty/teaching staff, students, and administrative/other staff) completing short-term training --- ANY OTHER TYPE OF SHORT-	Actual TOTAL FOR SHORT TERM TRAINING

D SECURITY				CULTURAL PRODUCTIVITY OR FOOD SECURITY	TERM TRAINING BESIDES TRAINING IN AGRICULTURAL PRODUCTIVITY OR FOOD SECURITY		CULTURAL PRODUCTIVITY OR FOOD SECURITY	TERM TRAINING BESIDES TRAINING IN AGRICULTURAL PRODUCTIVITY OR FOOD SECURITY		CULTURAL PRODUCTIVITY OR FOOD SECURITY	TERM TRAINING BESIDES TRAINING IN AGRICULTURAL PRODUCTIVITY OR FOOD SECURITY		CULTURAL PRODUCTIVITY OR FOOD SECURITY	TERM TRAINING BESIDES TRAINING IN AGRICULTURAL PRODUCTIVITY OR FOOD SECURITY		URAL PRODUCTIVITY OR FOOD SECURITY	TERM TRAINING BESIDES TRAINING IN AGRICULTURAL PRODUCTIVITY OR FOOD SECURITY	
# of faculty/teaching staff who completed short-	0	4	***4***															

term training																		
# of students who completed short-term training	0	0	***0***															
# administrative/other staff who completed short-term training	2	0	***2***															
Total:	***2***	***4***	***6***															

Host-country institution individuals who completed <u>short-term training</u> in the last three academic years **---ANY OTHER TYPE OF SHORT-TERM TRAINING BESIDES TRAINING**	**Female**	**Male**	**Total**															

IN AGRICULTURAL PRODUCTIVITY OR FOOD SECURITY																		

# of faculty/teaching staff who completed short-term training	0	**3**	***3***															
# of students who completed short-term training	0	**0**	***0***	0	15	15	0	30	30	0	15	15	0	60	60	0	633	633
# administrative/other staff who completed short-term training	0	2	***2***															

Total faculty + stdue nts + admi n/oth er staff:	***0***	***0***	***5***															
OVER ALL TOTA L FOR Traini ng - Short Term INDIC ATOR	***2***	***4***	***11***															

Indicator Name	FY2015 Target	Q1+Q2 (Oct 1, 2014 to Mar 31, 2015)	Q3+Q4 (Apr 1 to Sept 30, 2015)	Progress to FY2015 Target
USAID GNDR-3: Proportion of females who report increased self-efficacy at the conclusion of USG supported training/programming	12	67	13	667%
USAID GNDR-4: Proportion of target population reporting increased agreement with the concept that males and females should have equal access to social, economic and political opportunities	60	43	17	100%

#	Indicator Name	FY2015 Target	Q1+Q2 (Oct 1, 2014 to Mar 31, 2015)	Q3+Q4 (Apr 1 to Sept 30, 2015)	Progress to FY2015 Target
1	CUSTOM 1: Number of courses developed or revised to comprise the new M.Sc. program in Agribusiness	14	14	14	200%
2	CUSTOM 2: Number of gender-sensitive modules developed	12	12	12	200%
3	CUSTOM 3: Percentage of faculty members demonstrating increased pedagogical skills	45	0	35	78%
4	CUSTOM 4: Number of students participating in internship/practicum programs	12	0	12	100%
5	CUSTOM 5: Total number of research proposals submitted to potential donors	5	4	5	180%
6	CUSTOM 6: Number of organizations represented on the advisory committee	0	3	7	88%
7	CUSTOM 7: # of flexible delivery options identified by NUR-MSU	1	1	2	300%
8	CUSTOM 8: % of female applicants who receive need-based support	2	11	11	1,100%
9	CUSTOM 9: Number of participants in mentoring program (men/women)	20	0	28	140%

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