Research Application Summary

Tracking University Development Contributions: Emerging indicators from Moi University

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Abstract

Agricultural universities have a tripartite mandate to design and deliver effective and development relevant academic, research and outreach programmes. Conventional university training, tracking, grading and reporting emphasizes the academic and research components, and hardly reports against outreach. Consequently, outreach remains poorly funded, and if there are any contributions of universities to development innovations, these have gone unnoticed or credit given to partners who adopt and scale out the innovations. Through the Outreach (CARPs) programme the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) is piloting experiential learning and value chain approaches, aimed at improving university effectiveness to address development challenges. The question being raised is; with the weak tracking and reporting against outreach results, will the three pilot universities be able to capture and articulate the lessons and impacts from this programme, to appropriately inform the scaling out to the rest of RUFORUM universities? The paper uses the provisional results from Moi Chepkolel University CARP project to generate discussions around three main questions: The importance of outreach as part of students training, the reporting and value attached to its results, and the way forward. Preliminary results from Moi show that students have more than met the initial Outreach target of reaching 300 farmers, by engaging over 900 farmers through their outreach activities, have produced a Communication tool, drafted field handbook of pests and diseases, drafted a community level register of striga affected farms and are embarking on processing and branding 9 soya/peanut products with Farmers Associations, all of which are outside of their academic requirements for graduation.

Key words: Grading, outreach, Moi University, reporting, tracking

Résumé

Les université agricoles ont un triple mandat de concevoir et de fournir la recherche et les programmes de sensibilisation efficaces et académiques relevant du développement. La formation universitaire classique, le suivi, le classement et la communication mettent l'accent sur les composantes universitaires et celles de la recherche, et à peine rapportent contre la sensibilisation. Par conséquent, la sensibilisation reste plus pauvrement financée et s'il y a des contributions des universités à des innovations de développement, celles-ci sont passées inaperçues ou le crédit est accordé à des partenaires qui adoptent et intensifient les innovations. Grâce au programme de sensibilisation du public (CARP), RUFORUM met à l'essai l'apprentissage expérientiel et les approches de la chaîne de valeur, visés pour améliorer l'efficacité des universités afin de relever les défis du développement. La question qui se pose est la suivante : avec le suivi et la communication qui sont faibles par rapport aux résultats de sensibilisation, les trois universités pilotes seront-elles en mesure de saisir et d'articuler les enseignements et les impacts de ce programme, pour informer convenablement la remise à niveau dans le reste des universités du RUFORUM? Le document se veut utiliser les résultats provisoires du projet CARP de l'Université Chepkolel Moi pour engendrer des discussions autour de trois questions principales: l'importance de la sensibilisation dans le cadre de la formation des étudiants, la communication et la valeur attachée à ses résultats, et la voie à suivre. Les résultats préliminaires de Moi montrent que les étudiants ont plus que répondu à l'objectif initial de sensibilisation pour atteindre 300 agriculteurs, en engageant plus de 900 agriculteurs par le biais de leurs activités de sensibilisation; ils ont produit un outil de communication, ils ont rédigé un guide de terrain sur des ravageurs et des maladies, un registre du niveau communautaire des exploitations touchées par le striga et se lançant dans la transformation et en montrant l'image de marque de 9 produits du soja / arachide avec les associations d'agriculteurs, qui sont toutes en dehors de leurs exigences académiques pour la graduation.

Mots clés: Sensibilisation, suivi, classement, communication

Background

"How will development actors and promoters appreciate the contribution of universities to development if universities themselves are not tracking and reporting their results?"

Agricultural universities have a tripartite responsibility to effectively deliver the best quality academic training together

with research and outreach models for others (development, private and public sectors) to adopt and scale out. While it is clearly understood that universities are not development agents, through their research and outreach components they are expected to provide effective models that other development actors can take up. Most importantly perhaps is the expectation that through the outreach and research components, the graduates from the agricultural colleges will be relevant as change agents in their own fields. Traditional university education focuses more on the academic training and laboratory research in production, with little mention of outreach activities and results.

A monitoring and evaluation principle to draw on is; "What is monitored gets done". It is therefore right to say that outreach not being part of the grading of students and not often made explicit in university research projects, has made it less valued with little attention given to monitoring and reporting.

A proverb from Malawi below provided the motivation for this paper:

"Those who accomplish great things pay attention to little ones"

The purpose of this paper therefore, is to generate discussions around the "little ones" that is, outreach guided by the three questions below:

- (i) Is the outreach component of University delivery worth investing in time and resources?
- (ii). How should the results of outreach be assessed and reported?
- (iii) What are your suggestions for improving Outreach/ engagement in tracking and reporting?

The RUFORUM Outreach document, "Shifting from Outreach to Engagement: Transforming Universities' response to current development trends in agricultural research and training in Eastern, Central and Southern Africa" describes the situation in the following words

"The shift in focus from simple agro-production to value chains requires a complete shift in graduates' knowledge and skills. Traditionally, universities have concentrated on training graduates in field production. Yet the current economic trends

The RUFORUM
Outreach Programme
Initiative

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demand that graduates are skilful in also post-field production activities such as agro-processing, marketing and negotiations, an area which has also received much less support than it needs. This has resulted in weak linkages between researchers and farmers and a mismatch between what the farmers want and actually obtain. There is a big disjoint between agriculture and agro-industry, and yet for farmers to benefit, agriculture should be considered incomplete unless it incorporates agro-processing and marketing."

The three Community Action Research Projects (CARPs), employing the experiential learning and the value chain approaches are pilots to address some of these gaps. The design of the CARPs was informed by a detailed gap analysis (Hawkins 2010), that identified the need for experiential learning and proposed ways to improve the three components of university training. In a nutshell, the CARPs were designed to encourage universities to develop and invest in action research with communities, in partnership with other research and development agencies, with the objective of solving farmer challenges using a value chain approach.

The question is, if changes take place, will they be adequately tracked, articulated and published?

Examining the Current Tracking and Reporting Modalities Academic training tracking and reporting. Grading through examinations is the traditional mechanism for assessing and tracking results under the academic training component. There is considerable public data about the numbers of graduates released every year, and the levels at which they achieve this. The Makerere website for instance, has detailed information on all graduates under each college, names of first class honours (Table 1), as well as a summary by gender of graduates attaining the various awards (Table 2).

Table 1. Example of list of first class honours by programme.

Name	Programme	CGPA
HABINSHUTI Johnbright	Bachelor of Science in Agriculture	4.63
TERETERE Possiano	Bachelor of Science in Agriculture	4.44
IBORE Martha (Ms)	Bachelor of Science in Agriculture	4.40

Universities have whole departments responsible for keeping records on academic performance of students, the Academic Registrar. The conclusion is that because the academic training

Table 2. Graduates by gender.

		Male	Female	Total
1	PhD	28	14	42
2	Masters Degree	646	384	1,032
3	Postgraduate Diploma	15	03	18
4	Undergraduate Diploma	105	154	259
5	Undergraduate Programmes	5079	4592	9671
	Grand Total	5873(53.3%)	5149 (46.7%)	11,022(100%)

Source: Makerere Academic registry January 2012 (mak.ac.ug).

component is rigorously tracked, graded and reported, it is given the first priority and attention.

Research tracking and reporting. Post graduate training in agriculture and natural sciences requires that students undertake research. For RUFORUM supported graduates, this research needs to be field-based and be participatory. On their websites, all three CARP Schools/Colleges of Agriculture indicated existence of research publications, mostly done by lecturers. The Makerere School of Agriculture research page has both a list of publications and on-going research. Moi University publication section has not been uploaded but I am sure hard copies of research papers and what is going on are available. Accessing and opening the Bunda college website was problematic but on the home page there is as section for publications. To access students' research results, Makerere website sends the visitor to the library depository, meaning records are compiled and kept somewhere. Research is assessed, graded and published so it is also done and receives considerable attention, because without it, students do not graduate. But although the research may be documented it is not made accessible. There is little or no attention given to dissemination of student research.

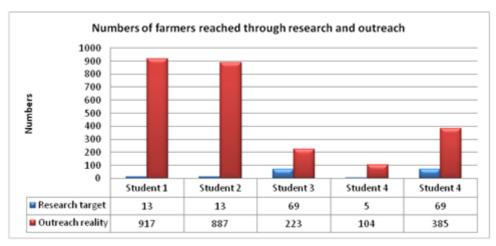
Outreach tracking and reporting. Outreach is not even tracked at all. Unless it is reported as part of research, there is no indication whatsoever, at least from the websites, of tracking and reporting results from outreach. The Makerere Department of Extension and Innovation page should at least, assumed the writer, have some indication, some data on community engagement and results. The page makes mention topics of research undertaken and supervised by the department, the over 1000 under graduate and 30 post graduate students who have graduates since inception. There is no information on the

actual results at the development level by the 1030 graduates and the lecturers of this department.

There are two possible conclusions: Outreach is not effectively done by universities to merit reporting about; or that the absence of provisions within the university reporting and grading system to capture and articulate outreach results, makes the efforts to report outreach results futile. Either way outreach emerges as the weakest component of the three.

The case of Moi CARP students. The CARP project will be like the other university initiatives that have come and gone leaving no trace, outside the affected communities, of their impact, if attention is not paid to capturing and reporting about its contribution to development. While Moi CARP students are focused on their experimental designs, they have engaged in other value chain and experiential learning activities that may not appear in their thesis for academic rewards. As part of the Outreach program, there are overarching results that CARPs are expected to deliver. Below are some preliminary results from the field by the five students.

1.1 Numbers of farmers reached against the research target. The target of the RUFORUM outreach programme is for the three universities to reach 300 farmers. In Figure 1 below, the blue represents the research targeted number of farmers and the maroon the actual outreach results. Through



NB: Some of the farmers cut across the students projects since all are working with the same Farmers' Associations.

Figure 1. Numbers of farmers reached through outreach.

outreach, student 1 has already reached 917 farmers, while through research she has experimental plots on only 13 farms.

1.2 Engaging with the value addition. The Outreach programme intended for the students to move beyond research on primary production of agricultural commodities to engaging with the value chain. One student is looking at 9 Soya/peanuts product to be processed and marketed, to be properly labelled with trade names and specified market targets (Table 3). Tracking to capture benefits at household levels is planned as part of the follow up activities.

Table 3. Proposed soya/peanut products.

Mix Tı	rade name (proposed trade names)	Design of labels (Picture)	
Pure soya	Westernsoya,	Soya, grains	
Grain Amaranth	Babysoya, babymix, babypower	Baby, cup,	
Grain amaranth + finger millet	Nutrimix , AFDEMIX	Sports person	
Grain amaranth + finger millet + Cassava	Ujipower	Healthy family	
Grain amaranth + maize	Bussfomix, MFAMIX,	Healthy people;	
Grain amaranth + Cassava	Soyamix, Tesomix, Tesouji	Cassava tubers, grains,	
Grain amaranth + maize (major maize)	CARP power, CARP Ugali	A plate of hot ugali, muscled	
		person	
Pure Maize	Western Unga, AFDEP Unga,	Maize grains, plants	
	MFAGRO Unga, BUSSFO Unga		
Soya grains			

Source: Moi University CARP update document.

1.3 Proposed Soya and peanut products. Two soya products to be made 1) pure soya 2) mixed soya (amaranth, amaranth + finger millet, amaranth + maize + Cassava/sorghum, amaranth + Cassava/sorghum) while peanut will be packed only as peanut butter or peanuts. Please note the CARP ugali!

Market targets. Members of Farmer Associations, Hospitals, Institutions (Schools and Colleges) – Tenders to institutions, Children, Canteens, FAs outlets (own shops), Supermarkets, Personal marketing and hawking and Vulnerable groups

Sources of raw materials. Purchase from members and non-members (priority to members); Banking of cereals from farmers; Contract farmers (supply seed and act as a sole marketer); and Demonstration plots by FAs.

Already one of the Farmers Association, BUSSFO in Bungoma has purchased a processing machine.

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- **1.4.** Creating demand of university technologies by farmers. In its CARP proposal, Moi University pointed out the weak and sometimes total absence of knowledge seeking behaviour among farmers as one of the constraints to university results reaching farmers. Several approaches have been employed to enhance farmers' knowledge seeking behaviours:
- One student has developed and launched a **communication strategy**, including use of the university radio airtime to inform communities of available technologies and services. Famers call in and ask for advice, demand technologies and the response is very positive such that at some stage the unit was overwhelmed with farmers' demands.
- Joint experimentation and public demonstrations: In the past students used to "use" farmers fields without involving and explaining to them what the experiments were about or bringing back results to inform change. This time round, farmers have been partners in the process and there has been enriched mutual learning, strong linkages with the university resulting in closer collaboration.
- The university invited and involved farmers in its public shows. This has increased the farmers' awareness of what the university can and cannot do, as well as the useful technologies available.
- The student facilitating **business plan formulation has also integrated knowledge seeking** in the strategy to ensure its continuity after the researchers leave.

Once farmers' interest in information was awakened, it became essential that the available information is well packaged for their use. The Soil and Agronomy students developed a **draft** handbook on crop pests and disease with posters on soil fertility management.

A register of *striga* affected farms has been developed by the student working on *striga*. A memorandum of understanding is to be signed with a private company to scale out the multiplication, treatment and supply of *striga* resistant seed in the region. This is expected to help subsequently in recording and targeting *striga* resistant varieties in the region.

The outreach experience has motivated the students to continue in the line of their research. When asked what they would do after graduation, below are the responses from the five students

Packaging and Disseminating Information

Tracking Problems and Targeting Innovations

Set To Become Change Agents

- "As an employee of the Ministry of agriculture, I work in collaboration with so many stakeholders. I will strive to disseminate the knowledge and technologies learned to the ministry staff and various stakeholders in agriculture. Through field days and barazas, I will emphasize the need for soil analysis and how to go about it. Also through agricultural shows, I will set up demonstration on technologies such as fortified compost and Mbili system". Dreda
- "During the project I have been involved in helping the farmer associations come up with strategic plans and also start income generating activities through the establishment of legume processing plants. Therefore I intend to continue supporting the associations in management and running of the plants and also assist in marketing of their products. I want to continue providing relevant information pertaining to their activities to make them sustainable." Christine
- "I will work with other organisations that aim at assisting farmers turn their farms into profit making enterprises and get to provide ideas. I also want to learn more about how and why farmers make the economics decisions they make on their farms rather than take the alternatives. I will use these to develop viable models that can develop the rural sector through agriculture". Carol
- I would want to continue with my PhD in Agronomy to work on AM fungi and other integrated striga management approaches towards achieving absolute control of striga in western Kenya, because I now believe that it is possible. In addition to this, I would like to do agronomic research on issues which affect farmers especially small holder farmers and making follow ups to see if what I am introducing is being taken up or not, and if not the reasons behind the poor adoption in the varying farming communities. I believe this will go a long way towards reducing food insecurity in the less fortunate farming communities in Western Kenya and Kenya as a whole, Wycliff

Back to the discussion questions

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- Is the outreach component of University delivery worth investing in time and resources?
- How should the results of outreach be assessed and reported?
- What are your suggestions for improving Outreach/ engagement tracking and reporting?
- The above questions are important for guiding future investments in university outreach activities

Acknowledgement

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Makerere: http://www.mak.ac.ug

Bunda: Malawi University of Malawi, Bunda college of

agriculture.

Moi: http://www.chep.ac.ke