

FACT SHEET

PhD Dryland Resource Management

Rationale

Africa faces the challenge of ensuring sustainable management of Dryland resources. Consequently there is need to build capacity for capacity building for sound management of Dryland ecologies. These are areas with great potential for economic development, reduction of hunger and poverty. The interventions must take into account the plasticity associated with these highly variable ecosystems and requires multi-partner interventions to elucidate and address various interactions within ecosystems as a whole.

The focus is cross-sectoral and requires partners to actively engage with end-users in an innovation process. It is against this framework that the PhD programme in Dryland resource management was developed. The programme provides a platform through which the needed knowledge management is a key thrust in working with affected communities to create sustainable change in Dryland farming systems in the Eastern and Southern Africa (ESA) region and beyond. The programme opened doors to the first group of eighteen (18) students from seven (7) countries in 2008. Subsequent intakes reported in 2010, 2011, 2012 up to 2015.

Graduate Profile

The programme aims to produce graduates who are:

- Effective and competent managers of Drylands, knowledgeable in local and global scientific and development issues, and the inter-linkages.
- Leaders able apply on the cutting-edge technical

(Continued on page 2)

Programme Objectives

- 1) To develop national and regional human resource and institutional capacity and competencies to drive innovations in Drylands for sustainable livelihoods.
- 2) To improve Dryland resource management by developing new techniques / technologies together with related institutions and capacity building at community level.
- 3) To enhance productivity of natural resources through improved management.
- 4) To elucidate the interactions between land degradation process and climate so as to improve the understanding of potential impacts of some land degradation processes and climate change.
- 5) To formulate recommendations for supporting policy decisions and promoting investments in agricultural innovation in Africa's Drylands.

Host Institution

University of Nairobi, Kenya

P.O Box 30197, G.P.O, Nairobi, Kenya Telephone: (+254 - 20) 318262 /

(+254 - 020) 2429997 Fax: (+254 - 20) 245566



(Continued from page 1)

knowledge coupled with hard and soft skills, within complex research and development contexts.

- Competent in strengthening linkages and partnerships among universities in the region, and between universities and national, regional and international institutions with mandates in Dryland research and capacity development.

Programme duration

The programme shall take a minimum of 3 years and a maximum of 5 years.

Mode of delivery

The degree programme consists of taught course work, written examinations, research and thesis.

Curriculum structure and content

Coursework

The course work is taken in the first year of study, within duration of one year. Students are required to take seven core courses and at least five elective courses to make a total of 12 courses. The faculty may require a candidate to attend courses that may be considered appropriate to remedy deficiencies in the candidate's academic background, or to endow the candidate with specialized skills in order to assist in his / her study or research work. Course or courses undertaken by the candidate are assessed and the student must attain the pass mark.

List of Courses

Core Courses

Code	Title	Hours
ADR 701	Dryland Ecology	45
ADR 702	Remote Sensing and Geographical Information Systems	45
ADR 703	Dryland Livelihoods	45
ADR 704	Dryland Resource Economics	45
ADR 705	Philosophy of Dryland Resource Management	45
ADR 706	Agricultural Technology Development	45
ADR 722	Dryland Resource Policy	45

Elective courses

Theme 1: Human Ecology

(Continued on page 3)

(Continued from page 2)

Code	Title	Hours
ADR 707	Statistics for social sciences	45
ADR 708	Human Rights and Gender Analysis	45
ADR 709	Social and Anthropological Research Methods	45
ADR 710	Marketing of Dryland Products	45
ADR 711	Project Planning and Analysis, Monitoring and Evaluation	45
ADR 718	Dryland Biodiversity	45
ADR 719	Environmental and Social Impact Assessment	45

Theme 2: Production Systems

Code	Title	Hours
ADR 713	Statistics and Research Methods	45
ADR 714	Integrated Production Systems in Drylands	45
ADR 715	Crop Production and Post Harvest Management Systems	45
ADR 716	Crop Improvement and Protection in Drylands	45
ADR 717	Animal Feed Resources in Drylands	45
ADR 712	Applied Economic Theory	45
ADR 719	Environmental and Social Impact Assessment	45

Theme 3: Ecology and Environment

Code	Title	Hours
ADR 713	Statistics and Research Methods	45
ADR 714	Integrated Production Systems in Drylands	45
ADR 717	Animal Feed Resources in Drylands	45
ADR 720	Watershed Management	45
ADR 721	Agro-meteorology	45
ADR 718	Dryland Biodiversity	45
ADR 719	Environmental and Social Impact Assessment	45

(Continued on page 4)

(Continued from page 3)

Field Research

The research proposal is developed during the first year of study. However, the candidate must pass coursework before embarking on field research. The thesis topic is agreed upon between the candidate and the approved academic supervisors. Each candidate is required to present a minimum of two seminars in the course of their research work, as part of quality assurance.

Method (s) of Assessment

Coursework

Students sit coursework examinations on semester basis, and are expected to pass all end-of semester examinations in core courses and respective elective courses, to qualify to proceed to do their research. The university uses External Examiners as part of quality assurance. At the end of the course/ module, each lecturer administers a questionnaire for evaluation.

Research

The research project is examined by written thesis and oral presentation (viva voce). Students' theses are examined by two internal (within the University) examiners and one external examiner, followed by oral presentation/examination at the Faculty where the student is registered. Candidates are expected to publish at least two papers in peer reviewed journals before graduating. A candidate who fails in the thesis is allowed two re-submissions; but will be discontinued after a fail in the final re-submission.

Implementation progress and achievements

Student numbers and progress status (See page 6)

Staff exchanges / visiting lecturers in the Programme

Skill enhancement Courses

As part of quality assurance and building competencies beyond the technical, students in the programme undergo the following short skill enhancement courses (5-7 days): a) Proposal writing, b) Journal Publishing, c) Scientific data management, d) Personal Mastery and Soft Skills e) Graduate research week – this is a five day session where experts from the field interact with students by sharing their experiences, reviewing student proposals, advising students on the practicalities of field research in Drylands, and advising students on potential sources of funding, information, internships, etc.

(Continued on page 5)

(Continued from page 4)

Student numbers and progress status

Year of Intake	Number of Applicants	Student Numbers (% females in brackets)	Status of Students	Countries of origin of the students
Cohort 1 (2008)	78	18 (33)	17 students graduated between 3 to 3.5 years.	Kenya, Ethiopia, Malawi, Tanzania, Sudan, Uganda, Zambia, Zimbabwe
Cohort 2 (2010)	36	8 (40)	4 students have graduated. The remaining 4 are completing their thesis write up	Kenya, Uganda, Ethiopia, Sudan
Cohort 3 (2011)	20	10 (40)	5 graduated and the remaining are completing their thesis write up	Kenya, Uganda, Ethiopia
Cohort 4 (2012)	15	10 (30)	Students are compiling their thesis work and preparing journal manuscripts	Kenya, Uganda
Cohort 5 (2013)		7	Concluding the research activities	Kenya
Cohort 6 (2014)		6	Just completed coursework	Kenya
Cohort 7 (2015)		6	The students have just reported for course-	Uganda & Kenya

Outputs from the Programme so far

- i. PhD Theses: 30
- ii. Papers in refereed Journals: 35
- iii. Conference proceedings: 40
- iv. A journalist article profiling the societal value of the programme.

(Continued on page 6)

(Continued from page 5)

No	Name	Gender; Country	Responsibilities
1	Tasokwa Kakota	Female; Malawi	Head of Department - Lilongwe University of Agriculture and Natural Resources, Malawi; Head of Department of Basic Sciences
2	Sarah Nalule	Female; Uganda	Head of Department -Makerere Uganda;
3	Mary Baaru	Female; Kenya	Lecturer - Kenyatta University
4	Elizabeth Muthiani	Female; Kenya	Research Officer-Kenya Agricultural Research Institute
5	Eunice Githae	Female; Kenya	Lecturer – Kenyatta University, Kenya
6	Kudra Abdul	Male; Tanzania	Lecturer – Sokoine University, Tanzania
7	Robert Mulebeke	Male; Uganda	Lecturer - Kyambogo University
8	Richard Moyo	Male; Zimbabwe	Lecturer – University of Zimbabwe, Zimbabwe
9	Melusi Moyo	Male; Zimbabwe	Lecturer – Lupane State University, Zimbabwe
10	Joseph Ndung’u	Male, Kenya	Research Officer – Kenya Agricultural Research Institute
11	Mugerwa Swidiq	Male, Uganda	Director for National Livestock Resources Research Institute, Uganda
12	Emmanuel Tairo	Male; Tanzania	Lecturer-Mkwawa University, Tanzania
13	Debela Hunde	Male; Ethiopia	Lecturer – Jimma University, Ethiopia
14	Zziwa Emmanuel	Male; Uganda	Lecturer – Makerere University
15	Aphaxard Ndathi	Male; Kenya	Research Officer – Kenya Agricultural Research Institute
16	Elias Obudho	Male; Kenya	Lecturer-University of Nairobi
17	Oswin Chibinga	Male; Zambia	Lecturer – University of Zambia

What the graduates are doing (cohort 1)

Positive outcomes:

There are a number of positive outcomes from the hosting and implementation of the regional programme:

(Continued on page 7)

(Continued from page 6)

- 1) The rigour and approach for MSc. curricula design, review and teaching has been strengthened (most of the MSc. lecturers also teach the PhDs)
- 2) The value of skill enhancement for staff and students appreciated, embraced and becoming part of contract performance in the College of Agriculture and Veterinary Science at University of Nairobi which hosts the programme.
- 3) The programme has helped faculties to break walls around disciplines – business unusual:
 - i) Statisticians and veterinary doctors have registered for Dryland resource management; Social anthropologists, ICT experts, business managers participate in teaching and supervising students.
 - ii) The approach in teaching and designing research projects has led to strengthening the linkage between research and real needs of farmers, and the bigger picture in agricultural landscape e.g. the Comprehensive African Agricultural Development Programme (CAADP). This has also enhanced the relevance of research conducted under the programme.
 - iii) The programme has attracted funding from USAID. The US\$. 0.5M grant is supporting the development of a Sustainable Drylands Centre. The Grants support student and staff research fellowships, students' exchanges, and Centre infrastructural development. The partnership involves RUFORUM Secretariat, University of Dar es Salaam, Tanzania National Livestock Research Institute, ILRI, IUCN, AU-IBAR and Colorado State University.
 - iv) The Kenya Agricultural Research Institute has ear-marked the Programme as their choice for training their Dryland scientists. Since 2008, four (4) KARI staffs have been trained through the programme

Anecdotal evidence of positive outcomes

How the programme has performed:

Headline News: RUFORUM Monthly Newsletter – August 2011

Please see next page

RUFORUM MONTHLY

The Monthly Brief of the Regional Universities Forum for Capacity Building in Agriculture

UNIVERSITY OF NAIROBI DOES RUFORUM PROUD *Six students complete PhD in record time*

On 9th September 2011, the University of Nairobi will confer PhD degree in Dryland Resource Management to the first six graduates from RUFORUM's regional PhD programmes. The students completed coursework, field research and successfully defended their theses in exactly three years!! The six graduates (below) comprise of four females from Uganda (1), Kenya (2) and Malawi (1) and two males from Ethiopia (1) and Uganda (1). The PhD Programme in Dryland Resource Management was the first of RUFORUM's five regional PhD Programmes. It was launched in 2008 with an initial class of 18 students from Eastern and Southern Africa region. The programme's goal is to improve the security of livelihoods in the drylands of Africa. It aims at building capacity for dryland management by producing graduates who are effective change agents, with skills that embrace advances in dryland science and community development practice.

- *RUFORUM Monthly* provides information on activities of the Regional Universities Forum for Capacity Building in Agriculture.
- This *Monthly Brief* is available on the last week of every month ■

ANNOUNCEMENTS



**Sarah Nalule,
Uganda**

**Mary Baaru,
Kenya**

**Eunice Githae,
Kenya**

**Tasokwa Ka-
kota, Malawi**

**Debela F.
Hunde, Ethiopia**

**Swidiq
Mugerwa,
Uganda**

Original message
From: MARY BAARU [<mailto:bmwamuyu@gmail.com>]
Sent: Monday, October 24, 2011 9:39 AM
To: Adipala, Ekwamu
Cc: Dr. Wellington Ekaya; Secretariat, RUFORUM; Chindime, Sylvia
Subject: Re: Appreciation note to RUFORUM

Dear Prof. Adipala

This is to sincerely record my gratitude for your unfading efforts to first and foremost fund my PhD studies, which has changed my life.

Many programmes have funded PhD students but let me say RUFORUM has surpassed them all. RUFORUM has done it differently and that is what makes it unique. I am yet to see one that molds and produces all rounded graduates as RUFORUM does. The inbuilt trainings within the programme has made me to look at things differently and also know what matters most is" what you do with your PhD rather than getting it."