

TRECCAfrica II

Transdisciplinary Training for Resource Efficiency and Climate Change in Africa II

Full-time PhD programmes and themes

2014



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Introduction

TRECCAfrica II will address one of the world's greatest environmental challenges: food security in the face of climate change, resource depletion and loss of forests, wildlife and environmental services. Africa inherited inefficient and extractive resource regimes that led also to political exclusion and poverty. Promoting new governance configurations that are inclusive and decentralised can, by contrast, lead to a virtuous cycle in which we can produce more wealth from less environmental resources for more people, and in ways that are much better adapted to achieve food security in the face of climate change.

Globally, the challenges of food insecurity within the context of climate change are inhibiting economic growth and human wellbeing, and these problems are expected to accelerate. The food system is also changing as a result of complex and dynamic interactions of a range of socio-economic and environmental factors, including among others, urbanisation, concentration of production, vertical integration, deregulation and economic liberalisation. As demand for food is expected to double in the next 25-50 years, food systems will be forced to adapt to mounting challenges that current research and global institutions, especially those in Africa are only starting to grasp.

This project intends to promote this adaptation by involving and educating young Africans proactively in the process of developing, understanding and scaling new approaches through 'transdisciplinary' research. The project proposes to award 86 Masters and Doctoral scholarships and exchange opportunities to some of Africa's brightest young minds, and a further 14 staff exchange opportunities to consortium members to enhance learning and joint research on this theme. In total, 100 individual mobility opportunities are therefore foreseen.

Ultimately TRECCAfrica's impact will be transformation in our societies through social and institutional innovation that stems from the application of problem-solving knowledge generation and insight.

Download and read the full concept note with overall TRECCAfrica II specific targets on the website at http://treccafrica.com/pages/about-us.html

The current call for applications for PhD full-degree positions is now open until 15 May 2014. We invite all students who are currently enrolled (or staff members employed) at any of the partner institutions indicated below (Target Group 1 applicants) to apply for fully funded PhD studies at any of the other partner universities. Applicants are welcome to establish contact with the potential supervisors at each partner by contacting the respective contact person for each institution. The university partners are: the University of Ghana, University of Nigeria, University of Dar es Salaam, University of Nairobi, Mekelle University, University of Botswana and Stellenbosch University.

Apply online at <u>www.treccafrica.com/apply-now.html</u>







University of Botswana

Contact: Dr Leps Malete, maletel@ub.bw

Title: PhD in Environmental Science

Duration (in semesters): 8 Semesters of full-time study:

Credits: Total 72 credits required to graduate (Equivalent to 9 credits per semester).

Description: PhD degrees are carried out through supervised research, but may require coursework if deemed necessary. Students are assigned supervisors upon admission based on the area of specialization and research topic. The student identifies up to 2 additional staff members who shall be co-supervisors, who with the supervisor constitute a Supervision Committee officially designated by the Department.

To proceed from semester to semester, a student must have a cumulative GPA of 2.5 or above. A student who has failed not more than one course each semester with a mark of at least 55% and has a cumulative GPA of 2.5 may register for the next semester on probation, unless specified otherwise in Departmental or Faculty Regulations. However, such a student will be permitted to retake a failed course only once in subsequent semesters. A student on probation shall be required to achieve a cumulative GPA of at least 2.5 at the end of the next semester in order to be eligible to continue in the programme.

Required Research Credits:

ENV 900	PhD Research Proposal	(22 Credits)
ENV 901	PhD Thesis / Dissertation	(50 Credits)

Objectives:

The objectives of the PhD Degree Programmes in Environmental Science are as follows:

a) To provide a deeper understanding of the inter-relationship between biophysical and socioeconomic environmental processes;

b) To impart advanced research and analytical skills and knowledge for competent enquiry within selected fields of specialisation;

c) To develop in the student the ability to provide leadership in academic pursuits and on research and policy-making teams.

Current research themes of interest:

Soils; Geomorphology; Hydrology; Range Ecology; Climate change; Climatology; Environmental Quality; Natural Resource Management; Tourism; Rural and Urban Issues; Environmental Economics; Population and Environment, and

GIS; Remote Sensing; and the applications of these e.g. fire, water, disasters, climate change etc.



Entrance Requirements

Doctor of Philosophy Degree Programme: Applicants who have obtained an appropriate Master's Degree (MSc, MA, MEd MPhil or equivalent) with course work and research are eligible to apply and must include an acceptable preliminary *research proposal*. Applicants are normally admitted into an MPhil programme. After completion of a maximum of two semesters of full-time academic work (or the equivalent) the programme shall recommend the student either for transfer to the PhD programme or for continuation as an MPhil candidate.

Taught Graduate Courses that students can take:

	Semester	Course code	Course Title	Hrs/Week
	I	ENV610	Integrated Environmental Management & Analysis I	L=3;To=3
			(c)	
		ENV611	Introduction to Environmental Information Systems	L=2;L=3;To=3
			(c)	
		ENV620	Land Use Planning and Land Use Dynamics (o)	L=2; L=3;To=3
		ENV621	Economic Aspects of Resource Utilization and	L=3;To=3
			Management (0)	
		ENV622	Climate and Resources in Semi-Arid Environments	L=3;To=3
LEVEL			(o)	
		ENV623	Hydrology and Water Resources (0)	L=2;L=3;To=3
100		ENV624	Soil Survey and Land Evaluation (o)	L=3;To=3
		ENV625	Population Dynamics and Human Settlements (o)	L=3;To=3
		ENV626	Range Resources and Management (o)	L=3;To=3
	2	ENV612	Integrated Environmental Analysis II (c)	L=3;To=3
		ENV613	Research Methodology (c)	L=3;To=3
		ENV628	Wildlife Management and Tourism Development (o)	L=3;To=3
		ENV629	Natural Resources Use Policies (o)	L=3;To=3
		ENV630	Agriculture and the Environment (0)	L=3;To=3
		ENV631	Geographical Information Systems (o)	L=3;To=3
		ENV632	Remote Sensing (o)	L=2;L=3;To=3
		ENV633	Geomorphology (o)	L=3;To=3
		ENV634	Waste Management and Pollution Control (o)	L=3;To=3
	Ι	ENV610	Integrated Environmental Analysis and Management I	L=3;To=3
			(c)	
		ENV611	Introduction to Environmental Information Systems	L=2;L=3;To=3
			(c)	
	2	ENV612	Integrated Environmental Analysis and Management	L=3;To=3
			II (c)	
		ENV628	Wildlife and Tourism Management (0)	L=3;To=3
		ENV629	Natural Resource Use Policies (o)	L=3;To=3
		ENV630	Agriculture and the Environment (o)	L=3;To=3
		ENV631	Geographical Information Systems (o)	L=3;To=3
		ENV632	Remote Sensing (o)	L=2;L=3;To=3
		ENV633	Geomorphology (o)	L=3;To=3
		ENV634	Waste Management and Pollution Control (o)	L=3;To=3
	3	ENV620	Land Use Planning and Land Use Dynamics (0)	L=2;L=3;To=3
		ENV621	Economic Aspects of Resource Utilization and	L=3;To=3



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		Management (0)	
	ENV622	Climate and Resources in Semi-Arid Environments	L=3;To=3
		(o)	
	ENV623	Hydrology and Water Resources (0)	L=2;L=3;To=3
	ENV624	Soil Science and Land Evaluation Surveys (o)	L=3;To=3
	ENV625	Population Dynamics and Human Settlements (o)	L=3;To=3
	ENV626	Range Resources Management (o)	L=3;To=3
4	EVN613	Research methodology (c)	L=3;To=3
	ENV628	Wildlife and Tourism Management (o)	L=3;To=3
	ENV629	Natural Resource Use Policies	L=3;To=3
	ENV630	Agriculture and the Environment (o)	L=3;To=3
	ENV631	Geographical Information Systems(o)	L=3;To=3
	ENV632	Remote Sensing (o)	L=2;L=3;To=3
	ENV633	Geomorphology (o)	L=3;To=3
	ENV634	Waste Management and Pollution Control (o)	L=3;To=3

LEGEND / KEY: Course type: C – core; O – optional

Notes: I) L -Lecturer; L -labs; To- Total (hours/week);

Recognition obtained /Employability:

UB degrees are recognised nationally and internationally. Graduates work in the public and private sector companies, NGOs and civil societies, international organizations and agencies, colleges and universities, self enterprises etc.

Other PhD programmes available for selection:

- PhD in Civil Engineering: Water and Environment
- PhD in Physics: Geophysics



University of Dar es Salaam

Contact: Prof James Lyimo, lyimo@ira.udsm.ac.tz

PhD programmes available for selection:

- PhD in Natural Resource Assessment and Management
- PhD in Marine Sciences
- PhD in Water Resources Engineering
- PhD in Renewable Energy







University of Ghana

Ms Empi Baryeh, <u>ebaryeh@ug.edu.gh</u>

PhD programmes available for selection:

- PhD in Environmental Economics
- PhD in Resource Economics
- PhD in Environmental Science
- PhD in Biodiversity Studies
- PhD in Food Science
- PhD in Biotechnology



Mekelle University

Contact Mr Goitom Tegegn, goitom1998@gmail.com

Title: PhD in Soil Science

Duration

- All requirements of this doctoral degree must be completed within four years following the semester in which the candidate successfully completes the final examination.
- Extension up to I year may be approved by the DGC. Request for extensions longer than I year must be considered by the dean of CDANR (College of Dry land Agriculture and Natural Resources)
- All request should be initiated by the coordinator of Graduate Studies. If approved, extensions longer than I year will require a retake of the qualifying examination.
- Failure to pass the re-examination will result in the termination of degree candidacy; a second re-examination is not permitted.

Objectives:

- to cater high level, relevant and problem-solving persons in the field of soil science
- to produce knowledge and new technology for the sustainable utilization of soil resources; and
- to involve in solving societal problems and modernize agriculture through transfer of knowledge and technology

Structure and Content:

Doctoral Dissertation in Soil Science

Research Interests and Project Overview of the Department:

The program is implemented nationally with strong collaboration with the Swedish University of Agricultural Sciences, Sweden, and the Uganda Martyrs University, Uganda. The partnership is as part of the Network project Agroecology in Practice: Education and Training,' jointly implement with local and national stakeholders. This network project is financially supported by Swedish SIDA.

Recognition obtained /Employability:

Job Opportunities

- Graduates will be equipped with modern management tools and will form the backbone of the technical expertise to steer the nation towards food self sufficiency and environmentally sustainable exploitation of natural resources.
- Most of the graduates will be employed universities, research institutions, Ministerial - International Organizations, Private Companies and Private Firms
- In addition, graduates will become entrepreneurs and the areas of agriculture and environment



Admission Requirement

The following criteria shall be used as a guide for admitting competent applicants

- Applicants must have M.Sc. Degree in areas of soil, agriculture, environmental sciences, land and water management, natural sciences, geography, or any other relevant field from which a recognized university or equivalent institution.
- All applicants for admission to the program must show evidence of academic performance, employment experience that has demonstrated their potential for a high level of achievement in graduate research or professional practice.
- Synopsis on doctoral research proposal to be addressed by the candidate.
- Each applicant must also satisfy the DGC with appropriate proficiency in the English language by submitting either TOEFL or IELTS scores of 500 or 6 and above, respectively.
- Candidates must produce a support letter from their employers and two additional letters of recommendation, which demonstrate the competences of the candidate undertaking terminal degree studies.
- Applicants who can produce financial attestation for covering research and tuition costs.
- The university retains the right to select candidates and to limit enrolment in accordance with available resources

Doctor of Philosophy in Soil Science

- The Ph.D. degree is intended to represent the demonstration of independent and comprehensive scholarship in the field of soil science.
- Such scholarship must be manifested by both the student's mastery of subject matter and capacity to do research.
- Every applicant for the Ph.D. degree must select areas of specialization viz. Soil Chemistry, Soil Fertility; Soil Microbiology and Biochemistry, Soil Morphology and Genesis; Soil Physics and Soil Management
- The major area is one in which the students' efforts are concentrated
- The degree of Doctor of Philosophy is conferred up on a candidate graduate work devoted to study of a special field of knowledge. I. passes comprehensive / qualifying examination 2. presents a satisfactory dissertation, and 3. shows evidence of scholarly attainment

More information:

http://www.mu.edu.et/ics/



University of Nairobi

Contact Dr Maggie Opondo, maggie@swiftkenya.com

Title: PhD in Agricultural Meteorology

Duration (in semesters): Six Semesters

Objective:

This programme focuses on enabling a candidate to carry out research and write a doctoral dissertation in a selected topic in agricultural meteorology. Leading to the acquisition of knowledge, skills and attitude to enable one to competently work in operational, research and academic settings.

Structure and Content:

Doctoral Dissertation in Agricultural Meteorology

Research Interests and Project Overview of the Department:

The research interests of the Department of Meteorology include:

- Impacts of climate variability and change on agriculture in Rwanda
- Impacts of climate variability and change on agricultural based livelihoods in Southern Sudan
- Calibration and validation of satellite-derived data and products for improved environmental monitoring for sustainable development in Kenya
- Improvement of our understanding of rainfall mechanisms, prediction and verification methods in Kenya
- Using rainfall to predict droughts and floods in Kenya
- The onset and cessation of the long rains in Eastern Africa and their interannual variability
- Formulating disaster risk reduction strategy for Kenya

Recognition obtained /Employability:

UoN degrees are recognised nationally and internationally. Graduates work in national/county governments of various countries, private companies, NGOs and civil societies, international organizations and agencies, colleges and universities, self enterprises etc.

More information:

http://meteorology.uonbi.ac.ke



Title: PhD in Climate Change and Adaptation

Duration (in semesters): Six Semesters

Objective:

The ICCA academic programmes seek to build climate change and adaptation capacity at the University of Nairobi for national, regional and international candidates who seek to enrich their studies using transdisciplinary approaches to learning and solving the modern challenges posed by climate change.

Structure and Content:

The programme comprises of a Doctoral Dissertation in Climate Change and Adaptation plus four prerequisite courses, inlcuding coursework and examinations. The PhD may be undertaken in one of the following thematic areas:

- Climate Risk Management and Food Security
- Human Dimensions and Health
- Policy and Communication
- Technologies
- Water, Environment and Ecosystems

Research Interests and Project Overview of the Institute:

The research interests of the Institute for Climate Change and Adaptation include:

- The Hominin Sites Palaeoclimate Drilling Project (HSPDP) [website:http://hspdp.asu.edu/]
- Capacity building for sustaining urban groundwater-fed water supplies and sanitation systems in Africa
- Early warning systems for improved human health and resilience to climate-sensitive vectorborne diseases in Kenya
- Testing biodiversity responses to climate and land-use changes across the East African Highlands
- Improved agricultural production and food security to enhance adaptation to climate variability and change through timely dissemination of climate products and services
- Contribution to the draft National Adaptation Plan (NAP) on climate related impacts on poverty reduction, human vulnerability and health in Kenya
- Coping with local disasters using indigenous knowledge in Kenya
- Increasing community resilience to climate change induced drought in Makueni District in Kenya and integrating vulnerability and adaptation to climate change into sustainable development policy planning and implementation in Eastern and Southern Africa
- Strengthening community-based adaptation to climate-sensitive malaria in Kenya
- Capacity building to evaluate and adapt to climate change-induced malaria and cholera in East Africa



Recognition obtained /Employability:

UoN degrees are recognised nationally and internationally. Graduates work in national/county governments of various countries, private companies, NGOs and civil societies, international organizations and agencies, colleges and universities, self enterprises etc.

More information:

http://icca.uonbi.ac.ke

Title: PhD in Environmental Chemistry (Water)

Duration (in semesters): Six Semesters

Objective:

This programme focuses on enabling a candidate to carry out research and write a doctoral dissertation in a selected topic in environmental chemistry. Leading to the acquisition of knowledge, skills and attitude to enable one to competently work in operational, research and academic settings.

Structure and Content:

Doctoral Dissertation in Environmental Chemistry

Research Interests and Project Overview of the Department:

The research interests of the Department of Chemistry include:

- Water quality in Kenya: development of electrochemical sensors for detection of heavy metals and toxic organic halogen formulated pesticide pollutants in water bodies and related environment
- Natural products chemistry research towards the management of neglected diseases
- Developing regional system for sweet potato planting material
- Allelochemicals in striga suppression
- Ethno-medicinal plants for East Africa
- Pesticide accumulation and degradation profiles in grazing livestock
- Chemical pollution in Kenyan water systems

Recognition obtained /Employability:

UoN degrees are recognised nationally and internationally. Graduates work in national/county governments of various countries, private companies, NGOs and civil societies, international organizations and agencies, colleges and universities, self enterprises etc.

More information: http://chemistry.uonbi.ac.ke



Title: PhD in Environmental Planning and Management

Duration (in semesters): Six Semesters

Objective:

This programme focuses on enabling a candidate to carry out research and write a doctoral dissertation in a selected topic in environmental planning and management. Leading to the acquisition of knowledge, skills and attitude to enable one to competently work in operational, research and academic settings.

Structure and Content:

Doctoral Dissertation in Environmental Planning and Management in the of the Department of Geography and Environmental Studies

Research Interests and Project Overview of the Department:

The research interests of the Department of Geography and Environmental Studies include:

- Tourism and Wildlife Management Strategy in the Serengeti-Maasai Mara Ecosystem in the Mara River Basin
- National Policy for Disaster Management and Early Warning for South Sudan
- Food Planning and Innovation for Sustainable Metropolitan Region in Kenya
- Water sector reforms and interventions in urban Kenya
- Governing African cities: The case of Nairobi and Dar-es-salaam.
- Mainstreaming of Climate Change Adaptation Policies into the Institutional Framework and Into Core Development Policy, Strategies and Plans in Mauritius
- Monitoring and evaluation of the Kenya Health Sector Dynamic Costing Model research project
- Environmental Audit project for Arid Lands Resource Management Project (ALRPM) II in the Arid and semi arid districts of Kenya
- Gender analysis of coffee and tea value chains in Kenya
- Governance Implications of private standards initiatives in agri-food chains in Kenya
- The socio-economic effects of fair trade tea between Kenya and the UK
- Ethical trade in African horticulture gender, rights and participation in Kenya, South Africa and Zambia
- The gender implications of tobacco contract farming in Kenya

Recognition obtained /Employability:

UoN degrees are recognised nationally and internationally. Graduates work in national/county governments of various countries, private companies, NGOs and civil societies, international organizations and agencies, colleges and universities, self enterprises etc.

More information: <u>http://geography.uonbi.ac.ke</u>



Title: PhD in Food Science, Nutrition and Technology

Duration (in semesters): Six Semesters

Objective:

This programme focuses on enabling a candidate to carry out research and write a doctoral dissertation in a selected topic in food science, nutrition and technology. Leading to the acquisition of knowledge, skills and attitude to enable one to competently work in operational, research and academic settings.

Structure and Content:

Doctoral Dissertation in Food Science, Nutrition and Technology

Research Interests and Project Overview of the Department:

The research interests of the Department of Food Science, Nutrition and Technology include:

- Improving the iron status of young children in the Lake Victoria Basin region using porridge flour supplemented with bovine blood
- Public health hazards and associated risk factors along the camel milk production and marketing chain
- Transform nutrition: tackling the neglected crisis of under-nutrition risk factors for human colorectal cancer in Kenya
- Novel staple food-based strategies to improve micro-nutrient status for better health and development in sub-saharan Africa

Recognition obtained /Employability:

UoN degrees are recognised nationally and internationally. Graduates work in national/county governments of various countries, private companies, NGOs and civil societies, international organizations and agencies, colleges and universities, self enterprises etc.

More information:

http://foodtech.uonbi.ac.ke

Title: PhD in Veterinary Medicine Pathology, Microbiology and Parasitology

Duration (in semesters): Six Semesters

Objective:









This programme focuses on enabling a candidate to carry out research and write a doctoral dissertation in a selected topic in veterinary medicine pathology, microbiology and parasitology. Leading to the acquisition of knowledge, skills and attitude to enable one to competently work in operational, research and academic settings.

Structure and Content:

Doctoral Dissertation in Veterinary Medicine Pathology, Microbiology and Parasitology

Research Interests and Project Overview of the Department:

The research interests of the Department of Veterinary Medicine Pathology, Microbiology and Parasitology include:

- Developing reforms for promoting asal communities in drought mitigation and maximization of livestock resources for improved livelihoods through strategic linkages
- Controlling infectious bursal disease through development of local vaccines and establishing effective vaccination program
- Diagonistic and control tools and strategies for taenia solium cysticercoids
- Investigation into the pathology and role of bacterial and endoparasitic diseases in mass mortality of lesser flamingos in Kenya
- Effect of habitat overlap on parasite transmission between sympatric baboon, monkeys and angulates in Amboseli ecosystem
- Prevalence, molecular characterization and drug susceptibility of zoonotic recurrent and coinfection mycobacterium tuberculosis and mycobacterium bovis in western Kenya
- Characterisation and evaluation of subunit vaccines against contagious bovine pleuropneumonia
- Characterization of infectious bursal disease virus and determination of possible vaccine strain(s) in Kenya

Recognition obtained /Employability:

UoN degrees are recognised nationally and internationally. Graduates work in national/county governments of various countries, private companies, NGOs and civil societies, international organizations and agencies, colleges and universities, self enterprises etc.

More information:

http://vetpathology.uonbi.ac.ke



University of Nigeria

Contact Prof Ifeyinwa Achike, ifyachike@gmail.com

PhD programmes available for selection:

- PhD in Climate Change Economics Policy and Innovation
- PhD degree in Agricultural Economics
- PhD in Fisheries Biology
- PhD in Parasitology
- PhD in Physiology
- PhD in Entomology
- PhD in Power Devices
- PhD in Power Systems



Stellenbosch University

Contact Ms Chernelle Lambert, treccafrica@sun.ac.za

Title: Transdisciplinary PhD Programme in Sustainability

Duration (in semesters): 8 semesters

Credits (per semester): 240 credits overall

Objectives (around 150 words):

(Objectives of the master/doctoral program in relation to the need analysis and the link to the thematic field proposed; etc.)

- Producing the next generation of intellectual leadership of academics and professionals capable of understanding and meeting Africa's future sustainability challenges
- Developing the necessary transdisciplinary skills and competencies for conducting problemoriented and policy-relevant research, particularly with respect to climate change and resource flows and depletion in Africa
- Producing new scientific and socially relevant knowledge for innovation, such as, through resource efficiency providing a base for climate change adaptation in Africa

Structure and content:

Non-credit bearing core modules and thesis work. For the purpose of TRECCAfrica the following fields/specialisations have been identified: Agriculture, Water, Biodoversity, Public Health, Natural Sciences, Energy. Students will register in the relevant department related to their proposal in potentially any faculty.

The following core modules are non-credit bearing modules (as the PhD thesis comprises 100% of the credits):

- Transdisciplinary Theory and Methodology
- Complexity Theory and Complex Systems
- Social Science Research Paradigms, Strategies and Methods
- Sustainable Development & Sustainability.
- Real-world Economics for Sustainability Transitioning

PhD research themes:

Department of Chemistry and Biology

I) Linking malnutrition and disease: nano-scale microbial inhibitors to control environmental biofilms

involved in food spoilage and infection

2) Distant learning for improved water quality and monitoring

Department of Conservation Ecology & Entomology

I) Planning and management of agricultural landscapes for future sustainability

2) Ecological restoration



Postharvest Technology

- I) Quantifying and Reducing Postharvest Food Losses And Food Waste In The Value Chaine
- 2) Packaging Design to Improve Fruit Cold Chain Management

School of Public Leadership

- I) Green Economies
- 2) Sustainable Urbanisation
- 3) Transition to Sustainable Development
- 4) African City Typology
- 5) Urban Metabolism of African Cities

Department of Sociology & Social Anthropology

I) A comparative study of land reform, traditional institutions and gender relations in Botswana and South Africa.

- 2) Development challenges in authoritarian states in sub-Saharan Africa;
- 3) A case study of a capital city in sub-Saharan Africa
- 4) Health governance and democracy in Africa

Department of Soil Science

- I) Soils as a Key Regulator of Ecosystem Functions
- 2) Soil's Role in Public Health and Human Well-being
- 3) Soils Mediating Nutrient Cycling, Transport Processes, and Plant-Soil-Microbial Interactions
- 4) Soil Formation and Degradation
- 5) Soil Information Systems

Department of Logistics (Transport)

- I) Sustainable transport practices (policy, planning and technology) for urban areas;
- 2) Quantifying the social marginal costs of travel to promote informed travel behaviour;
- 3) Decoupling transport resource depletion from economic development and growth;
- 4) Information communication technology (ICT) applications in transport planning;
- 5) Transport infrastructure investment and economic development in Sub-Saharan Africa



Recognition obtained /Employability:

SU degrees are recognised nationally and internationally. Graduates work in national/county governments of various countries, private companies, NGOs and civil societies, international organizations and agencies, colleges and universities, self enterprises etc.

More information:

www.sun.ac.za/