

**KOECH OSCAR KIPCHIRCHIR (BSc, MSc, Ph.D)**

**P.O. BOX 29053-00625, Nairobi, Kenya**

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**A. PERSONAL INFORMATION**

Date of birth	27 <sup>th</sup> July, 1985
Nationality	Kenyan
Gender	Male
Languages	English, Swahili, Luhya and Nandi
Marital status	Married
National ID No.	23884074

**PROFESSION:** Range Scientist specializing in Livestock Nutrition, Pasture production and management

**B. PROFESSIONAL MISSION STATEMENT**

To be able to apply to the best of my ability, the theoretical and practical knowledge I have acquired in my professional training, to work and cultivate teamwork efficiency, personal responsibility and accountability in management and administration of organizations for the better performance and well being of the society and the Nation at large.

**C. EDUCATION BACKGROUND**

<b>2011-2014</b>	<b>PhD in Dryland Resource Management (Production Systems)</b> , University of Nairobi, Department of Land Resource Management and Agricultural Technology, Faculty of Agriculture, Kenya. Thesis title ' <i>Comparative evaluation of six indigenous rangeland grasses for pasture production under varying soil moisture contents in Tana River county, southeastern Kenya</i> '
<b>2008-2010</b>	<b>MSc. in Range Management</b> University of Nairobi, Department of Land Resource Management and Agricultural Technology, Faculty of Agriculture, Kenya. Thesis title ' <i>Effects of Prosopis juliflora seedpod meal supplement on weight gain of weaner Galla goats in Baringo district, Kenya</i> '.
<b>2004-2008</b>	<b>BSc. in Range Management</b> , University of Nairobi, Kenya ( <b>First Class Honours</b> )
<b>2003</b>	<b>Certificate in computer applications</b> , St. Peter Computer College, Kapsabet, Kenya
<b>2002</b>	<b>KCSE Certificate (B+)</b> , Vihiga Boys high school, Vihiga, Kenya
<b>1998</b>	<b>KCPE Certificate</b> , Kamurguiywa Primary School, Kapsabet, Kenya

**D. PROFESSIONAL QUALIFICATIONS & SKILLS**

- [1] Competent in: Ms Word, Ms Access, and Ms excel, Ms PowerPoint, page maker and Ms Publisher among others.
- [2] Project planning, implementation and Management skills
- [3] Monitoring and evaluation of projects
- [4] Feasibility studies for project in natural resource, environment and agriculture

[5] Data analysis, Report writing and database management.

#### E. PROFESSIONAL SPECIALISED TRAINING

- October 2015: Scientific Research Paper Writing training at ILRI Campus, Addis Ababa Ethiopia offered by Beca and ILRI
- September 2015: Pedagogy Training, organized by School of Education, University of Nairobi
- March 2012: Tropical Biology Africa training on Designing research projects in the field at Mt. Rock Bantu Lodge, Naro Moru, Nanyuki.
- August 2012: Effective Teaching Strategies for Biological & Environmental Scientists at Esella Country, Hotel, Kampala Uganda
- May 2008: First aid training for emergency response by Kenya Red Cross society.
- June 2006: Leadership Training by the The Steadman Group  
K.C.B. Training Center, Karen, Nairobi

#### F. AWARDS, FELLOWSHIPS, GRANTS

- [1] Sept 2017-Sept 2018: Second phase Collaborative research grant on ways to propagate Frnakinsense Boswellia tree species (Boswellia Sacra, Boswellia frereana) in Somaliland and management and utilization of Prosopis juliflora. Funded by World Vision Somalia and Australian government. Grant amount: USD 163, 840
- [2] Kenya Accelerated Value Chain Development (AVCD) program Livestock component. Funded by USAID funded under FEED THE FUTURE. Project partners; ILRI, KLMC. **Grant amount:** USD 1 Million for three years, 2016-2018
- [3] Jan 2017: Collaborative research grant on ways to propagate Frnakinsense Boswellia tree species (Boswellia Sacra, Boswellia frereana) in Somaliland. Funded by World Vision Somalia. **Grant amount:** USD 36, 710
- [4] Jan- June 2017: Field Attachment Programme Award (FAPA) RU 2017 FAPA – CRP Dry land Cereals Post Doc by the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM). **Grant amount:** USD 10, 000
- [5] March-June 2016: Post Doc Visiting Research fellow, Institute of Biological and Environmental and Rural sciences (IBERS), Aberystwyth University, United Kindom: Research in methane gas measurements techniques from feed resources and livestock feeding in quest to abate GHGs from livestock production systems
- [6] 2014-2015: Current Research Project: Enhancing Resilience Of Livestock-based Livelihoods in Northern Kenya. This project is supported by IGAD Applied Research in Drylands Grants Facility (ARDGF) from 1st July 2014 to 31st October, 2015. Heading pastures reseeding and bulking activities in Marsabit and Isiolo Counties in North eastern Kenya.
- [7] 2012-2014: National Council for Science and Technology (NCST) Science, Technology and Innovation (ST&I) grant for your PhD research proposal entitled 'Comparative growth and interspecific competition responses of irrigated range grasses to varying watering schedules in the rangelands of Kenya'
- [8] 2011-2014: German Academic Exchange Service (DAAD Kenya) In-country and in-Regional postgraduate studies scholarship
- [9] National Irrigation Board Research grant on Fodder production in the ASALs of Kenya to provide strategic feed resources for livestock. Project funded by National Irrigation Board (NIB) in Tana River (Bura) and Turkana County (Katilu)
- [10] 2008-2010: MSc Scholarship granted by the University of Nairobi

## **G. WORK & RESEARCH EXPERIENCE**

- [1] **October 2014-Present:** Lecturer, University of Nairobi, College of agriculture and veterinary sciences, Department of Land Resource Management and Agricultural Technology, Range management section  
**Responsibilities:** Teaching undergraduate and post graduate courses to students taking PhD, BSc. Range Management and BSc. Agro ecosystems and environment management. Student supervision and other departmental roles assigned to me.
- [2] **January 2012 - 2014: Tutorial Fellow,** University of Nairobi, College of agriculture and veterinary sciences, Department of Land Resource Management and Agricultural Technology  
**Responsibilities:** Teaching undergraduate and post graduate courses to students taking BSc. Range Management and BSc. Agro ecosystems and environment management. Student supervision and other departmental roles assigned to me.
- [3] **March-June 2016:** Post Doc Visiting Research fellow, Institute of Biological and Environmental and Rural sciences (IBERS), Aberystwyth University, United Kindom: Research in methane gas measurements techniques from feed resources and livestock feeding in quest to abate GHGs from livestock production systems
- [4] **Jan, 2010-Dec 2012:** Research Associate, Sustainable Rural and Urban development consultants (SRUDC) Ltd.  
**Responsibilities:** Head of Livestock and livelihoods research, field work planning, Enumerator training and conducting a Participatory Rural Appraisal (PRA) and Focus Group Discussion
- [5] **June 2011: Consultant team** for Livelihoods survey study for African Conservation Centre - Maasai mara and Amboseli Ecosystems  
**Responsibilities:** Researcher and coordinated data collection, analysis and report writing.
- [6] **Sept-Dec 2012:** Consultant team for World Vision Somalia on certified holistic Rangeland management and disaster risk reduction in Puntland and Somali land.  
**Responsibilities:** Design of Holistic Range Management Curriculum, carry out feasibility studies on its applicability, assess the existing disaster risk reduction strategies and how they can be improved.
- [7] **2012: PhD. Research project** on Fodder production in the ASALs of Kenya to provide strategic feed resources for livestock. Project funded by National Irrigation Board (NIB), DAAD Kenya and NCST & I.
- [8] **2011: Consultant for Action Aid-** Food security assessment for project planning and design to implement food security projects in Isiolo, Mbeere and Kitui  
**Responsibilities:** Conducting survey, FGDs, PRAs, and development of feasible project plans in the area to come up with project proposals and reports
- [9] **May 2010-2011:** Part time Lecturer at the Mt. Kenya University  
**Responsibilities:** Sourcing and preparing relevant lecture notes on Research methods, principles of range management, Climatology and agroforestry and teaching.
- [10] **Dec 2008 to 2011:** Head of Livestock production systems Analyst, **SEDPA LIMITED**, Nairobi, Kenya  
**Responsibilities:** In charge of research in livestock production systems designs, evaluations including Grazing systems planning and management, Nutrition management and pastures.
- [11] **2009-2010: PI, MSc Research student:** University of Nairobi (College of Agriculture and Veterinary sciences) Projects Research in my MSc. Range Management-Livestock nutrition at Kenya Agricultural research institute (KARI)-Marigat in Baringo district).
- [12] Project title: Effects of *Prosopis juliflora* seedpods as a strategic supplement for Weaner Galla goats in the ASALS.

- Responsibilities:** Principle Researcher, collecting data, entry, analysis and reporting findings
- [13] **April 2010:** Reviewer, **World Vision** East Africa office food security Projects  
**Responsibilities:** Evaluating World Vision projects Reports for the Eastern African Region for Monitoring and evaluation of projects progress.
- [14] **March 2010:** Research Assistant to PhD student at the University of Nairobi  
**Responsibilities:** Enumerator training and conducting a Participatory Rural Appraisal (PRA) and Focus Group Discussion for a study on Climate Variability and Livestock Insurance among the Maasai Pastoral community in Laikipia North district, Kenya.
- [15] **January 2010:** Research Assistant to MSc Student at the University of Nairobi  
**Responsibilities:** Enumerator training to carry out a survey on Climate Variability and Poverty among Pastoral and Agropastoral communities in the larger Baringo district, Kenya
- [16] **July-Sept, 2008:** Research assistant in **ACCCA Project** .Addressing livelihoods under climatic variability and change; strengthening the adaptive capacity of rural poor to water scarcity in Kenya's Dry lands.  
**Responsibilities:** Enumerator training and conducting a Participatory Rural Appraisal (PRA) and Focus Group Discussion.

## **H. ADMINISTRATIVE RESPONSIBILITIES AT MY COLLEGE AND DEPARTMENT**

### **a) Faculty of Agriculture**

**2014 – Present: Chairperson,** Post graduate student-led seminar Committee on PhD candidate's presentation of research findings in the Faculty of Agriculture

Main responsibilities:

- [1] To coordinate and plan PhD seminar series for the Faculty
- [2] Write and produce PhD seminar series proceedings
- [3] Provide academic Mentorship to new PhD students who enroll in the faculty and induct them to seminar series
- [4] Ensure PhD seminar series program is coordinated and running
- [5] Communicate to PhD candidates on important communications including research calls and invitations for seminar lectures
- [6] Write and produce PhD seminar series proceedings

**2014 – Present: Member, Student mentorship programme**

Main responsibilities:

- [1] Organizing guest visitor's invitation to give talk to students
- [2] Orientation and guidance to new enrolled first year students
- [3] In charge of fourth year students mentorship in the Range management section

### **b) Department of LARMAT**

**2014 – Present:** Department of LARMAT Examination officer

Main responsibilities:

- To assist the Chairman to coordinate and plan for examination processes including submission of exam drafts, collection and submission of reviewed exams to Exam office in Chiromo.

**2014 – Present:** Department of LARMAT, Range section Internship co-coordinator

Main responsibilities:

- To assist the Chairman to coordinate and plan for BSc. Range Management internship opportunities during their year.
- Plan and co-ordinate range section student supervision during internship

#### **I. PROFESSIONAL MEMBERSHIP**

- [1] Ecological society for Eastern Africa (ESEA)
- [2] Nairobi University Range management student's society, (NURMSS).
- [3] Nairobi University Agricultural students association (NUASA)
- [4] Wildlife clubs of Kenya

#### **J. PUBLICATIONS (REFEREED JOURNALS)**

- [1] **Otieno, A. O., Karuku, G. N., Raude, J. M., & Koech, O. (2017).** Effectiveness of the Horizontal, Vertical and Hybrid Subsurface Flow Constructed Wetland Systems in Polishing Municipal Wastewater. *Environmental Management and Sustainable Development*, 6(2), 158-173.
- [2] **Jawuoro, S. O., Koech, O. K., Karuku, G. N., & Mbau, J. S. (2017).** Effect of piospheres on physio-chemical soil properties in the Southern Rangelands of Kenya. *Ecological Processes*, 6(1), 14.
- [3] **Jawuoro, S. O., Koech, O. K., Karuku, G. N., & Mbau, J. S. (2017).** Plant species composition and diversity depending on piospheres and seasonality in the southern rangelands of Kenya. *Ecological Processes*, 6(1), 16.
- [4] **Onekon Walter Angwere and Koech Oscar Kipchirchir (2016).** Assessing the Effect of Charcoal Production and Use on the Transition to A Green Economy In Kenya. *Tropical and Subtropical Agroecosystems*, 19(3)2016): 327 - 335
- [5] **Kuria S G, Koech O K, Adongo A O, Murithi S, Njoka J T and Kamande P 2016:** Cost of production, marketing and revenue generation from somali camel breed in Isiolo and Marsabit counties of northern Kenya. *Livestock Research for Rural Development. Volume 28, Article #229*. Retrieved December 2, 2016, from <http://www.lrrd.org/lrrd28/12/kuri28229.html>
- [6] **Koech, OK, Kinuthia RN, G.N. K, Mureithi SM, Wanjogu R. 2016.** Irrigation levels affects biomass yields and morphometric characteristics of range grasses in arid rangelands of Kenya. *Springerplus*. 5(1):1-15.
- [7] **Koech, O. K., Kinuthia, R. N., Karuku, G. N., Mureithi, S. M., & Wanjogu, R. (2016).** Field curing methods and storage duration affect the quality of hay from six rangeland grass species in Kenya. *Ecological Processes*, 5(1), 1-6.
- [8] **Kuria S G, Adongo A O A, Murithi S, Koech O K, Njoka J T and Kamande P (2016).** Acquisition and management of Somali camel breed for pastoral resilience within peri-urban Isiolo and Marsabit counties of Northern Kenya. *Livestock Research for Rural Development. Volume 28, Article #172*. Retrieved from <http://www.lrrd.org/lrrd28/9/kuri28172.htm>
- [9] **Walter Angwere Onekon and Koech Oscar Kipchirchir (2016)** Assessment of Consumer Awareness on Environmental Effects of Charcoal Production and Use in Nairobi City, Kenya. *International Journal of Science and Research (IJSR) ISSN (Online): 5(1)2319-7064*.
- [10] **Koech, O. K., Kinuthia, R. N., Karuku, G. N., Mureithi, S. M., & Wanjogu, R. (2015).** Water use efficiency of six rangeland grasses under varied soil moisture content levels in the arid Tana River County, Kenya. *African Journal of Environmental Science and Technology*, 9(7), 632-640. <http://www.academicjournals.org/AJEST> DOI: 10.5897/AJEST2015.1917

- [11] Kipchirchir, K. O., Ngugi, K. R., Mwangi, M. S., Njomo, K. G., & Raphael, W. (2015). Water Stress Tolerance of Six Rangeland Grasses in the Kenyan Semi-arid Rangelands. *American Journal of Agriculture and Forestry*, 3(5), 222-229.
- [12] Koech O. K., Kinuthia R. N., Mureithi S. M., Karuku G.N, Wanjogu R (2014). Effect of Different Soil Water Content and Seed Storage on Quality of Six Range Grasses in the Semi-Arid Ecosystems of Kenya. *Environment and Ecology Research* 2(2): 261-271, 2014 <http://www.hrpub.org> DOI: 10.13189/ eer.2014.020701
- [13] Koech, O. K., Kinuthia, R. N., Mureithi, S. M., Karuku, G. N., & Wanjogu, R. K. (2014). Effect of Varied Soil Moisture Content on Seed Yield of Six Range Grasses in the Rangelands of Kenya. *Universal Journal of Agricultural Research* 2(5): 174-179, 2014
- [14] Kipchirchir, K. O. (2013). Food Security: In The Pastoral Communities In Arid And Semi-arid Lands Of Africa.
- [15] Koech O. Kipchirchir, Kinuthia R. Ngugi and R.G. Wahome, 2011. Use of Dry Land Tree Species (*Prosopis juliflora*) Seed Pods as Supplement Feed for Goats in the Arid and Semi Arid Lands of Kenya. *Environmental Research Journal*, 5: 66-73
- [16] O.K. Koech, R.N. Kinuthia, R.G. Wahome and S.K. Choge, 2010. Effects of *Prosopis juliflora* Seedpod Meal Supplement on Weight Gain of Weaner Galla Goats in Kenya. *Research Journal of Animal Sciences*, 4: 58-62

#### K. CHAPTER IN A BOOK

- Kipchirchir, K. O., Kinuthia, N. R., & Githaiga, W. R. (2014). Use of *Prosopis juliflora* Seedpod as Livestock Feed Supplement in the Arid and Semi-arid Rangelands of Kenya. In *Science, Policy and Politics of Modern Agricultural System* (pp. 197-209). Springer Netherlands, by Behnassi, M., Shahid, S. A., & Mintz-Habib, N

#### L. PAPERS PRESENTED IN CONFERENCES

- [1] Effect of stage of maturity, curing and storage methods on the quality of hay from six indigenous grass species of Kenyan rangelands. 2nd International Conference on Drylands: Agricultural Diversification - Panacea To Food Insecurity In Drylands, Bayero University, Kano, Centre For Dryland Agriculture
- [2] Challenges Facing Pasture Production and Use in the Northern Rangelands of Kenya: A Case Study of Marsabit County. 2nd International Conference on Drylands: Agricultural Diversification - Panacea To Food Insecurity In Drylands, Bayero University, Kano, Centre For Dryland Agriculture
- [3] Methane measurement workshop, Aberystwyth University, Institute of Biological, Environmental & Rural Sciences (IBERS), UK from 10 - 11 May 2016
- [4] Strategic fodder production in the drylands: Evaluation of indigenous rangeland grasses production under irrigation. NIB workshop presentation on research findings and proposals: Naivasha, Morendat training and conference centre: 9th -10th July 2015
- [5] Effects of supplementing mesquit (*Prosopis juliflora*) seedpod meal on the performance of weaner Galla goats in the drylands of Kenya. RUFORUM regional capacity building conference: 20 – 24 September, 2010. Entebbe, Uganda
- [6] The importance of trees and shrubs as livestock feed in the arid and semi arid rangelands of Kenya: Case of *Prosopis juliflora* in Baringo district. RUFORUM regional capacity building conference: 20 – 24 September, 2010. Entebbe, Uganda

## **M. TEACHING DUTIES AT UNIVERSITY OF NAIROBI**

### **a) Under graduate**

Teaching course in Range Livestock Nutrition, Pastoral Production Systems, Principles of Range Management, Research Methods and Communication

### **b) Post Graduate**

Teaching course in Range livestock Nutrition, Management of Rangelands for Grazing, Range Research Methods, Integrated livestock production systems

## **N. POST-GRADUATE STUDENTS SUPERVISION**

<b>No.</b>	<b>Name of student</b>	<b>PhD/MSc</b>	<b>Title</b>
1.	Bakari Ahmed Maugunja	Graduated	<i>Ethnobotanical assessment of distribution and utilization of wild medicinal plants by households adjacent to Arabuko soko forest in Kilifi County of Kenya</i>
2.	Stanly Jawuor	MSC-completed	<i>Evaluation of the effects of artificial water sources and their management on plant species composition, diversity and soil organic carbon in Kajiado county</i>
3.	Austine Owuor Otieno	MSC-Ongoing	<i>Evaluating effectiveness of constructed wetland treatment system for polishing effluent from Gusii water treatment plant in Kisii, Kenya</i>
4.	Sani Abdullahi Kende	PhD-Ongoing	<i>Economic, ecological and social tradeoff analysis and uptake simulation of Aquaponics-Livestock integration versus conventional farming in wetland-Kebbi, Dryland Nigeria</i>
5.	Enock Ontiri	PhD-Ongoing	<i>Effects of Land use and Land Cover Change on Wildlife Conservation in Kawai-Engosi Landscape, Maasai Mara, Kenya</i>
6.	Hanna Kamau	MSC-ongoing	<i>Evaluating Suitability of Indigenous Grass Species for Rehabilitation of Degraded Semi-Arid Rangeland in Suswa, Kenya</i>
7.	Luiza Njeri	MSC-Completed	<i>Effects of Acacia Reficiens on Soil Physical And Chemical Properties And Understorey Vegetation In Laikipia And Samburu Regions, Kenya</i>
8.	Joseph Ombega	MSC-Completed	<i>Effect Of Land Rehabilitation On Soil Physico-Chemical Properties And Diversity Of Herbaceous Layer In Suswa Catchment, Narok County</i>
9.	Dorcus Kagwiria	MSC-ongoing	<i>Effect Of Organic And Inorganic Fertilizer Regimes And Levels On Grain Sorghum (Sorghum Bicolor L. Moench) Growth, Yield And Feed Quality</i>
10.	Hillary Rotich	MSC-ongoing	<i>Influence Of Different Grazing Management Practices On Soil Organic Carbon And Greenhouse Gas Emissions In Semi Arid Grasslands Of Makueni County</i>

### Internal examiner

- 1     John       Ndungu   MSc                    *Influence of enclosure management systems on rangeland rehabilitation in Chepararia, west Pokot County, Kenya*  
      Wairore
- 2     Miss        Lalampaa   MSc                    *Influence of Holistic Grazing Management on Herbaceous Species Diversity, Range Use Patterns and Livestock Production In Laikipia County, Kenya"*  
      Kushi Priscilla

### O. PERSONAL ASSESSMENT AND ABILITIES

I have the Ability to work under minimum supervision, Honest, Team player, Hardworking and Self-discipline. I have good Leadership and Organizational skills, Analytical Thinking, Self-motivation, Team player, Diligent, Computer and Internet skills, and Professionally confident.

### P. LIST OF REFERENCES

#### **Dr. Wellington N. Ekaya, PhD**

Senior Scientist – Capacity Building  
Biosciences eastern and central  
Africa (BecA)  
International Livestock Research  
Institute -Ilri.org  
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#### **Prof. Robinson K. Ngugi**

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#### **Mr. Henry C. Kahi,**

Principal technologist  
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