

CURRICULUM VITAE (CV) Simon Mang'erere Onywere

(a) Identification

- | | |
|---------------------------------------|--|
| 1. Full Names | Simon Mang'erere <u>Onywere</u> |
| 2. Nationality | Kenyan |
| 3. Years of Working Experience | From 1990 to Date (34 years) |
| 4. Current Institution of Affiliation | Kenyatta University |
| 5. Present Position | Research Associate, Fieldwork Coordination, KU-WEE Hub and PI "Randomized Evaluation of the Effects of a Preschool Intervention on Child Learning and Women's Economic Empowerment in Tharaka Nithi County, Kenya" |
| 6. Key areas of Expertise | Expert in Geographic Information Systems (GIS), Disaster Risk Reduction (DRR), Integrated Environmental Management (IEM) and Integrated Watershed Management (IWM). |
| 7. Contact | Onywere.simon@ku.ac.ke , onyweres@gmail.com |

Brief Bio

Simon Onywere, is an Associate Professor at Kenyatta University (KU), and balances academic roles with impactful research and community engagement. He leads a Gates Foundation-funded study on preschool intervention on effects of child learning and women's economic empowerment in Tharaka Nithi County. Onywere contributed to assessing socio-economic impacts of rising water levels in lakes and dams, serving on a Government of Kenya Multi-Agency Technical Committee. As the ESRI GIS Education Users Ambassador in Africa since 2018, he promotes GIS use in education and championed ESRI's 100 African Universities Programme in 2014. Onywere specializes in Integrated Environmental Management, developing participatory catchment management plans for communities. He led disaster risk management studies and training across East Africa, including IGAD states. Currently, he chairs KU's Global Tourism Resilience and Crisis Management Centre (GTRCMC - EA) board and actively contributes to the ECDE Network in Kenya.

Summary of Skills

- a) Ability to conceptualize, fully resource, and manage major research projects involving multiple partner institutions across the East African Region.
- b) Demonstrated capacity to organize large conferences, workshops, seminars and made presentations at many high-profile conferences as keynote speaker, presenter or discussant.
- c) Team player with ability to develop and nature inter-disciplinary network of collaborators to accomplish both short and long-term project goals.
- d) Demonstrated capacity in conceptualizing and writing project and research grant proposals and consequently raising funds for research projects.
- e) Experience in mentoring and examining students in academic and research.
- f) Meticulous and resilient in supporting the institutionalization of GIS and Technology body of knowledge for teaching and research.

- g) Capacity to prepare scientific papers, research reports, policy briefs and technical reviews and consequently publishing in scientific journals.
- h) Proven organizational, analytical and management acumen with administrative experience and strategic planning in research management.
- i) Proficient in computer usage including specialty applications such as GIS and Remote Sensing and other Geospatial Mapping tools
- j) Widely travelled and networked with institutions in the region

(b) Education

No.	Institution	Dates	Degree(s) or Diploma(s) obtained
1.	University of Nairobi, Nairobi, Kenya	Jan. 1993 – Dec. 1997	PhD. (Geology and Remote Sensing)
2.	University of Nairobi, Nairobi, Kenya	Sept.1987 - Sept. 1992	MSc. (Geology and Remote Sensing)
3.	University of Nairobi, Nairobi, Kenya	Sept.1984 - Dec. 1987	BSc. (Geology) 2nd Class Honours. (Upper Division)
4.	University of Cape Town, South Africa	11 Months 1993-97	GIS & Remote Sensing
5.	Ludwig Maximilians, University of Munich, Germany	5 Months June-Oct 1994	Digital image processing

(c) Membership of Professional Bodies

Since 6th July 2018	Appointed and serving as Esri GIS Education Ambassador for Extraordinary contribution to GIS Education
April 1992 and between April 2010 – May 2015	Member of the Kenya DAAD Scholars Association (KDSA) an alumni Association of the (An association of DAAD Alumni in Kenya) April 2010 – May 2015: National Chairman, the Kenya DAAD Scholars Association 2006 – April 2010 Secretary I, Kenyatta University Chapter of KDSA
Since 1992	Member, Geological Society of Kenya (GSK).
Sept. 2006 – 2019	Member, Regional Eastern Africa DIES Alumni Networking (REAL), Networking for Quality in Higher Education.
2008 - 2015	Member, Water Capacity Building Network (WaterCap) Capacity Building for Multi-Disciplinary, Multi-sectoral and Holistic Approaches for Sustainable, Equitable, Economical and Efficient use of water.
2006 – April 2010	Secretary General, Kenyatta University Chapter of the Kenya DAAD Scholars Association (KDSA)
2004 - 2015	Member, The UN University Network for Disaster Risk Reduction in Africa (UNeDRA)

(e) Consultancies Undertaken

<i>Organization</i>	<i>Title of Assignment</i>	<i>Starting and End Dates</i>	<i>Role in the assignment</i>	<i>Construct sum (KShs)</i>	<i>Contact address</i>
Bill and Melinda Gates Foundation	Initiative for What Works for Women's Economic Empowerment - 13 projects are being implemented under Kenyatta University Women's Economic Empowerment Hub Investment Document ID - INV-002289	Sept 2020 – Sept 2025	Researcher in Women's Livelihoods and PI for the RCT Intervention on Childcare being implemented in Tharaka Nithi	KShs. 400 Million	Kenyatta University Women's Economic Empowerment (KU-WEE) Hub 43844-00100 Nairobi
Kenya Water Towers Agency (KWTa)	Development of Criteria for Identification and Cataloguing of Water Towers in Kenya. Tender Number: KWTa/005/2019-2020	March 2020 - Present	Team Member	KShs 4 Million	Kenya Water Towers Agency P.O Box 42903-00100, Nairobi, Kenya
Kenya Water Towers Agency (KWTa)	Development of A Coordination Policy and A Bill on Kenya Water Towers. Tender Number: KWTa/RFP No/006/2017-2019	June 2018 – Oct. 2020	Team Member Defining the context of the Water Tower	KShs 13 Million	Kenya Water Towers Agency P.O Box 42903-00100, Nairobi, Kenya
Consortium for National Health Research (CNHR)	Community of Excellence for Research in Neglected Vector Borne Zoonotic Diseases (CERNVec) Collaboration of ICIPE, MoPHS, KU, JKUAT, KEMRI)	April 2011 – May 2014	Team member – Implementing GIS training and Application	KShs. 42 million	ICIPE – African Insect Science for Food and Health P. O. Box 30772-00100 Nairobi, Kenya icipe@icipe.org
African Wildlife Foundation (AWF) (Kenya)	Opportunities for reducing deforestation and forest degradation in Imbirikani, Kajiado using alternative livelihood options	April – June 2010	GIS and Satellite imagery application in the assessment	1.5 Million	African Wildlife Foundation (AWF) Ngong Road, Karen P.O. Box 310, 00502 Nairobi, Kenya
IGAD (Hawassa, Ethiopia)	IGAD Regional Food Security and Risk Management (REFORM) 9.ACP.RSA.023:	12 th July - 21 st August 2010	Lead Resource Person – Freelance Contract	USD 4708	IGAD, Djibouti: Gesellschaft für Organisation, Planung und Ausbildung mbH

	Technical approaches to Community Based Disaster Risk Management (CBDRM) Programming Training				(GOPA), Hindenburing 18, 61348 Bad Homburg, Germany
Ministry of State for Special Programme (Kenya)	Risk, Hazard, Vulnerability and Capacity Assessment / Mapping of Kenya” PROJECT REF: MOSSP/15/2011-2012 and ID:00071619, AWARD NO: 00057861 3KEN 09003	Sept 2012 – March 2013 & Feb 2011 – Dec 2011	Team Leader	KShs. 6.2 Million	Ministry of State for Special Programme, Kenya P.O. Box 40213-00100 Nairobi
IGAD (IGAD Region)	Regional Disaster Risk Management (DRM) Mainstreaming Study in 5 IGAD Members States (Djibouti, Ethiopia, Kenya, Sudan and Uganda)	Feb. – Dec. 2010	Lead Consultant	EUR 17,450	IGAD, Djibouti

(d) Other experience

10th – 15th October 2022	ClimSA Workshop on Forest and Climate “The Impact of Land-Cover Land-Use changes on Water Cycle from Satellite Data”; and “Rift Valley lakes level rise” Collaboration between Joint Research Centre, European Commission, Directorate for Sustainable Resources (Bio-Economy Unit); ClimSA Programme of IGAD Climate Prediction and Applications Centre; and Kenyatta University
Oct 2020 – May 2021	Rising Water Levels in Kenya’s Rift Valley Lakes, Turkwel Gorge Dam and Lake Victoria A SCOPING REPORT: Member of the Ministry of Environment and Forestry (MoEF) Multi-Agency Technical Committee to assess the socio-economic impacts and causes of the rising water levels within the Great Rift Valley Lakes, the Turkwel Gorge Dam a Lake Victoria, Supported by the Government of Kenya & UNDP
26th – 30th March 2007	Groundwater modelling and management: Field methodologies and implementation on the ATAR experimental site. By CERD (Centre d’Etudes et de Recherches de Djibouti), Djibouti and International Center for Training and Exchanges in the Geosciences (CIFEG). Within the MAWARI PROJECT: Vulnerability of Groundwater to Pollution in East African Rift System
March 2012 – To Present	Spearheaded and championing the Establishment and implementation of Linkage between Kenyatta University and ESRI Eastern Africa under the 100 African Universities programme that lead to award of ESRI ArcGIS Enterprise license (Master License Agreement Number 2013MSL4013) for campus-wide use To use GIS to nurture spatial thinking and as a key technology for global problem solving

April 2012 - 2016	Appointed and acted as contact person for Kenyatta University in the George Mason University Global Problem Solving Consortium of 8 Universities (University of Brasilia, Brazil; University of Delhi, India; Higher School of Economics, Russia; Istanbul Sehir University, Turkey; Kenyatta University, Kenya; George Mason University, USA; Tsinghua University, China; and Sejong University, South Korea)
Experience with Resistivity Tomography / Imaging (ERT) Oct – Dec.2014	Electrical Resistivity Tomography/Imaging (ERT) survey in selected sites at Bogoria \ Baringo drainage basin to assess the ground water potential and the characteristics of the aquifers for the NACOSTI project: Understanding the Environment, Promoting Health in Lake Baringo & Bogoria Drainage Basin. Generated a Report on Geophysical field survey for shallow groundwater aquifers and springs suitable for the communities in the Lake Baringo/Bogoria Drainage Basin
Experience in GIS and Remote Sensing – since 1990 (Kenya)	Teaching and training in GIS and remote sensing applications as the main area of teaching to both undergraduate and postgraduate students (Egerton University 1990 - 2001 and Kenyatta University, 2001 - present).
18th - 23rd Nov. 2008 (Kenya)	Organized a Regional Training workshop on "Geospatial Data Processing, Interpretation and Modelling Applied to Integrated Water Resources Management in the Eastern African Rift" Regional Centre for Mapping of Resources for Development (RCMRD), Nairobi. Within the MAWARI PROJECT: Vulnerability of Groundwater to Pollution in the East African Rift System. Supported by the French Ministry of Foreign Affairs – International Centre for Training and Exchanges in the Geosciences (CIFEG).
2006 – 2010 Lake Victoria Research (VICRES) East Africa Counties	Team leader and Chair of 15 Research project teams for "Pollution/Heavy Metals Cluster" of the Lake Victoria Research (VICRES) Initiative Projects managed by the Inter University Council of East Africa (IUCEA) and funded by SIDA/SAREC under the theme "Integrated risk assessment and management of pollutants in Lake Victoria Basin". Coordinated, prepared and presented for the cluster 3 position papers during the VICRES'2007, VICRES'2008, and VICRES'2009 Annual Forums.
26th - 28th August 2008	Invited by the International Network for Capacity Building in Integrated Water Resources Management (CAPNET), a project managed by UNDP and funded by the Dutch Government and UNDP as an Internal Evaluator (Local Peer Reviewer) for Nile IWRM-Net Country Coordinators' Planning Meeting and Opportunity Assessment for Capacity Building for IWRM in the Nile Countries, Nairobi, Kenya.

(f) Employment Record

Date	Name of employer	Position Held	Tasks of the employment
August 2020 - Present	Kenyatta University	Research Associate, Fieldwork Coordination, KU-WEE Hub	Coordinating field work activities and management of data from 13 Kenyatta University Women's Economic Empowerment Hub

August 2018 – August 2020	Kenyatta University	Director, Capacity Development and Consultancy Services	Organization & management of short courses and supporting applications for consultancy services by the university
May 2016 – July 2018	Kenyatta University	Director, Research Dissemination and Uptake	Research knowledge management and dissemination to intended consumers, support the planning of conferences, workshops and seminars
Sept 2011 – April 2014	Kenyatta University	Deputy Director, Research Capacity Building and Dissemination, Institute of Research, Science & Technology	Research capacity development, Research Dissemination through publications and extension,
Nov.2012 – Present	Kenyatta University	Ass. Prof. Environmental Planning and Management	Providing academic leadership, Teaching and Research in GIS & Remote Sensing, Wetland Resources Management; Integrated Environmental Management; Disaster Preparedness and Management; Waste Management, Research Methodology; Postgraduate Students Supervision
May 2001 – Oct 2012	Kenyatta University	S. Lecturer, Environmental Planning & Management	Teaching and Research in GIS & Remote Sensing, Wetland Resources Management; Integrated Environmental Management; Disaster Preparedness and Management; Waste Management, Research Methodology; Postgraduate Students Supervision
Sept 1998 – June 2001	Egerton University	Chairman, Department of Geography	Administrative duties and supervision of staff, Chief Departmental Examiner, Curriculum Review and Training

(g) Publications (List 5 relevant to the project)

Onywere, S., Naivasha, D., Mwoma, T., Oteyo, S., Meghir, C, Baker-Henningharm, H., Attanacio, O., Ouko, H, Mwangi, M., Gachara. E., Mvungu, E. (2024) Poster exhibition at the Eastern Africa Regional Early Childhood Conference (EARC) conference, Dar Es Salaam on 11th to 14th March, 2024 on theme was, “Investing in Early Childhood: Building Human Capital along the Life Course”.

- Randomized Control Trial Childcare Intervention Programme: Non-random Mapping of Status of Pre-primary Schools in Tharaka Nithi County, Kenya.
- A Randomized Control Trial of the Effects of a Preschool Intervention on Child Learning and Women's Economic Empowerment in Tharaka Nithi County, Kenya.

Wambua Peter *et al* (2023): Enhancing Women's Livelihoods, Labor Force Participation, Psychosocial Wellbeing, and Child Development through the Crèche Programme in Tharaka Nithi County, Kenya: Findings from a Pilot Study. Vol. 1 No. 1 (2023): Kenyatta University Women's Economic Empowerment (Ku-Wee) Journal

Mongare, R.; Abdel-Rahman, E.M.; Mudereri, B.T.; Kimathi, E.; **Onywere, S.**; Tonnang, H.E.Z. Desert Locust (*Schistocerca gregaria*) Invasion Risk and Vegetation Damage in a Key Upsurge Area. *Earth* 2023, 4, 187-210. <https://doi.org/10.3390/earth4020010>

Mangi H. O., **Onywere, S. M.** and Kitur E. C. (2023) Fish Productivity Response to Water Quality Variations: A Case Study of Nyumba ya Mungu Dam, in Pangani Water Basin, Tanzania. *International Journal of Ecology* Volume 2023, Article ID 7353898, 11 pages <https://doi.org/10.1155/2023/7353898>

Magige J.M., Jepkosgei C., **Onywere S.M.** (2020) Use of GIS and Remote Sensing in Tourism. In: Xiang Z., Fuchs M., Gretzel U., Höpken W. (eds) *Handbook of e-Tourism*. Springer, Cham. https://doi.org/10.1007/978-3-030-05324-6_118-1

Joy A. Obando, S. Onywere, C. Shisanya, A. Ndubi, D. Masiga, Z. Irura, N. Mariita, and H. Maragia, (2016). Impact of Short-Term Flooding on Livelihoods in the Kenya Rift Valley Lakes. In M.E. Meadows, J.-C. Lin (eds.), *Geomorphology and Society, Advances in Geographical and Environmental Sciences*, DOI 10.1007/978-4-431-56000-5_12, Pg 193-215. Springer Japan 2016.

Susan Malaso Kotikot and **Simon M. Onywere** (2014), Application of GIS and remote sensing techniques in frost risk mapping for mitigating agricultural losses in the Aberdare ecosystem, Kenya, *Geocarto International*, DOI: 10.1080/10106049.2014.965758, Article: <http://dx.doi.org/10.1080/10106049.2014.965758>

Onywere, S. M., J. M. Mironga and I. Simiyu (2012), Use of Remote Sensing Data in Evaluating the Extent of Anthropogenic Activities and their Impact on Lake Naivasha, Kenya, *The Open Environmental Engineering Journal*, 2012, 5, 9-18, *Bentham Science Publishers* [DOI: 10.2174/1874829501205010009]

(h) Certification:

I certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications, and my experience.

6th June 2024

Day/Month/Year

Simon M. Onywere