

Dr. VOLENZO TOM ELIJAH
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E-mail: volenztom@gmail.com

Personal Data

Marital Status: Married

Languages: English, Kiswahili

Summary:

A community engaged scholar with over two decades of work and research experience in Natural Resource management, Disaster management, Rural development, Food systems, Sustainable Development, climate change adaptation planning, policy engagement, mainstreaming of social safeguards, cross scale governance, participatory planning, implementation, monitoring, and evaluation. Hands on experience on teaching , mentorship, and community engagement in diverse areas. My Research interests include Agro-ecology, Sustainable Agriculture, Environmental Governance, Adapatation and Mitigation, Resilience, Food Security, Social Ecological systems, System thinking, Institutional economics, Policy and Risk analysis. Peer reviewer having reviewed more than 50 scholarly manuscripts for pub-med and scopus indexed journals.

Administrative/Professional Responsibilities and Accomplishments:

Date	Position and Employer	Responsibilities and Achievements
Oct 2021 to date	Research fellow/ Adjunct Professor- University of Venda	<ul style="list-style-type: none">• Multidisciplinary Research member on assessing policy, governance and institutional systems for Water-Energy-Food nexus.• Principal investigator: Exploring Sustainable Transformation Tools (STP) On Climate Change- Water- Health Nexus Scenarios in Dry Region of South Africa• Lead person in the design and development of Training manual for Technical and Vocational Education and Training (TVET) on green transport solution space
Feb 2018-September, 2021	Post-doctoral Research fellow, Department of Hydrology and Water Resources, School of Environmental Sciences, University of Venda, Republic of South Africa	<ul style="list-style-type: none">• Co-designed across institutional field-based courses on climate change and resilience building for Limpopo basin institutions of Higher learning Innovation Network (LBCIN)• Coordinated the Development of Curriculum on Disaster Management Course which has been approved by the Department for Higher Education• Coordinated scientific research, policy

		<p>analysis and stakeholder engagement on disaster risk reduction, climate change, mitigation .</p> <ul style="list-style-type: none"> • Teaching: Environmental Impact Assessment and Research methods • Coordinated scientific research, policy analysis and stakeholder engagement on disaster risk reduction, climate change, and sustainable development.
2014 to date	Environmental and Social Impact Practitioner NEMA (No 7332)	<ul style="list-style-type: none"> • Enhanced skills in data Instrumentation and collection (including screening checklists, scooping, questionnaires, interview schedules) • Developed analytical skills in collation, and synthesis of information from the ESIA/ESA process. • Developed Environmental & Social Management Plans (ESMPs) outlining measures for minimizing, eliminating, or mitigating the adverse impacts on the environment and ensuring the health and safety of the workers and community. • Identified and designed strategies for inclusive and transparent information disclosures and engagement processes
Nov 2003-February 2017	Environment Officer, National Environment Management Authority (NEMA), Kenya	<p>Promoting and coordinating public participation on all matters relating to development of policies, plans and processes for the management of the Environment.</p> <ul style="list-style-type: none"> • Developed strategic partnerships and funding opportunities for Environmental Management • Developed technological packages for environmental management, conservation and participatory community based natural resource management. • Coordinated and facilitated stakeholder participation in formulation of subsidiary legislation and review of various sectoral policies and regulations on the Environment. • Initiated and nurtured community and institutional structures in project planning implementation, monitoring, and evaluation • Developed tools and provided oversight on the integration of Environmental and social safeguards in project planning in line with Environmental and Social Management

		<p>safeguard framework.</p> <ul style="list-style-type: none"> • Coordinated review and approval of Environmental Audits and Environmental Impact Assessment at County Level • Coordinated Approval of Terms of reference between the project proponent and experts • Coordinated project licensing including onsite visits, audits compliance, enforcement, and prosecution of Environmental offences
May 1997- Oct,2004: –	Training and Extension officer, Ministry of Agriculture, Kenya	<p>Coordination, Planning, implementation support, monitoring, and evaluation of projects, programmes, plans and policies that enhance food security and build community capacities and options for secure, sustainable, and safe livelihoods, including adaptation to and mitigation of climate change and environmental degradation risks.</p> <ul style="list-style-type: none"> • Designed systems for data collection, analysis, reporting and feedback on Natural Resource Management and Food security interventions. • Developed participatory M& E system for food security and rural development projects. • Coordinated the piloting and up scaling of Smart Agriculture practices. • Identified Nature based enterprises for income generation and developed strategic partnerships for their funding. • Contributed to development and review of proposals on food security and Natural Resource Management

Academic Qualifications:

Oct 2010 to Jul 2015:	Masinde Muliro University of Science and Technology Ph.D. (Disaster Management and Sustainable Development)	<ul style="list-style-type: none"> • Thesis focused on Management of Climate change risks and adaptation in smallholder farming systems. • Won competitive grant from National commission for Science and Technology as relevant to practice and policy. • The thesis and published papers explore dairy cattle feeding strategies and smallholder farming systems in general in the development of an effective adaptation policy and programming
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Nov 2004- Jul 2006:	University of Nairobi Msc. Agricultural Resource Management (Resource Economics and Development option)	<ul style="list-style-type: none"> • Units studied include Remote sensing and Global climate change, Project Analysis, Social economics for natural Resource management, Resource policy, Environmental Management, Development Economics, Biodiversity and Animal genetic resources, Agricultural Development planning, Biometry, and scientific communication. • Research thesis: Social economic factors influencing performance of organic farming under small-holder farming systems
Nov 1990- Jul, 1995	University of Nairobi B.Sc. Agriculture (Upper second-class Honours)	<ul style="list-style-type: none"> • Carried out project work on effect of year of hatch on performance of layers using panel data covering 35 years

Professional and Faculty Appointments

- **2023 to date:** Adjunct professor : University of Venda, South Africa
- **2015 to date:** Part time lecturer, MMUST
- 2021-2023: Research fellow, Transport Education and Training Authority/ Water Research Commission, Republic of South Africa
- 2018- 2021: Post doctoral fellow- University of Venda, Republic of South Africa

Teaching experience

May 2015 to date	Part-time Lecturer- Masinde Muliro University of Science and Technology (MMUST) and University of Venda (Univen), Republic of South Africa	<ul style="list-style-type: none"> • Community Development, Principles of Management, Environment , Food and Agriculture and Environment, Environmental Impact Assessment, , Integrated community Disaster planning, Disasters, Society and Sustainable Development, Research methods
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Post Graduate Supervisions/Examination

2020-todate	Post graduate supervision, School of Environmental Sciences University of Venda	Mentorship of postgraduate students (4 Masters level, 1 PhD, 3 Honours' level) <ul style="list-style-type: none"> ● Mulalo Mudao- Msc ● Lufuno Mabala-Msc ● Pindulo Mpaphuli- Msc ● Shandukani, M- Msc ● Mandisa Murendeni-Msc ● Rabecca Adeeyo- PhD
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Principal Research Activity:

- **Principal Researcher:** Exploring the Sustainable Transformation tools (STP) on Climate change- water- health nexus scenarios in a dry region of South Africa : The case of Vhembe District Municipality (VDM), Limpopo, South Project Africa. Number: **WRC 2023/2024-01346. In progress.**
- **Team member: Water-Energy- Food Nexus:** Integrating water-energy-food nexus innovations and practices into policy, governance and institutional frameworks for sustainable development in Vhembe District, Limpopo Province, South Africa.**WRC C2020/2021-00392. Completed**

Community Service

1. Involved in many activities within the community geared towards sustainable Development, Disaster Risk Reduction and participatory Assessment and Planning with NEMA and Ministry of Agriculture
2. Education, Information and Public Awareness
3. Application of Transformative sustainable Planning tools in Adaptation Planning

Peer Reviewer

- Journal of Risk Studies
- Journal of Environmental Management
- Water
- Climate
- International Journal of Environmental Research and Public Health
- Nature
- Energies
- Land

Publications

- Musetsho K.D, Mwendera E, Madzivhandila T, Makungo R, **Volenzo TE**, Nephawe K.A and Mamphweli N.S (2024). Assessing Policy, Governance and Institutional Systems for Water-Energy-Food Nexus, The Case Of The Vhembe District, Limpopo Province, South Africa. Environmental Science and Policy. **Frontiers in water DOI 10.3389/frwa.2024.1253921**
- Mwendera, K. D. Musetsho, T. Madzivhandila, R. Makungo, N. S. Mamphweli, K. A. Nephawe, **T. Volenzo**. (2023) Integrating Water-Energy-Food Nexus Innovations and Practices into Policy, Governance and Institutional Frameworks for Sustainable Development in Vhembe District, Limpopo Province, South Africa: Literature Review. International Journal of Food Science and Agriculture, 7(3), 346-359. doi: 10.26855/ijfsa.2023.09.003
- Adeeyo, R.O.; Edokpayi, J.N.; **Volenzo, T.E.**; Odiyo, J.O.; Piketh, S.J.(2023) Determinants of Solid Fuel Use and Emission Risks among Households: Insights

from Limpopo, South Africa. *Toxics* 2022, 10, 67. <https://doi.org/10.3390/toxics10020067>

- Volenzo T.V., Makungo, R (2021). Effective Mainstreaming of Agricultural Emissions into Climate Action Agenda: The Case of Institutions and Smallholder Dairy Production Systems, Western Kenya. *Atmosphere* **2021**, 12(11), 1507; <https://doi.org/10.3390/atmos12111507>
- Madilonga, R.T.; Edokpayi, J.N.; **Volenzo, E.T.**; Durowoju, O.O. Water Quality Assessment and Evaluation of Human Health Risk in Mutangwi River, Limpopo Province, South Africa. *Int. J. Environ. Res. Public Health* **2021**, 18, x. <https://doi.org/10.3390>
- **Volenzo, T.E., & Odiyo, J.O.** 2019. *Perception of environmental spillovers across scale in climate change adaptation planning: The case of small-scale farmers' irrigation strategies, Kenya.* *Climate* [https://doi: 10.20944/201910.0289.v1](https://doi.org/10.20944/201910.0289.v1)
- **Volenzo Tom and John Odiyo:** Participatory Planning and Assessment Dilemmas: The Case of Water Resources Management- *Int. j. of Environ Res and Public Health.* doi; [10.3390/ijerph15081635](https://doi.org/10.3390/ijerph15081635)
- **Volenzo Tom and John Odiyo** (2020): “Integrating endemic medicinal plant species into global supply chain: The case of *prunus africana* and implications for ecological sustainability” doi:[10.20944/ 201811.0053.v1](https://doi.org/10.20944/201811.0053.v1)- *Heliyon*
- **Volenzo, T.E., Odiyo, J.O. & Obiri, J.,** 2019, ‘Greenhouse gas emissions as sustainability indicators in agricultural sectors’ adaptation to climate change: Policy implications’, *Journal of Disaster Risk Studies* 11(1), a576. <https://doi.org/10.4102/jamba.v11i1.576>
- **Volenzo, T.E. & Odiyo, J.O.,** 2019, ‘Linking risk communication and sustainable climate change action: A conceptual framework’: *Journal of Disaster Risk Studies* 11(1), a703. [https://doi.org/ 10.4102/jamba.v11i1.703](https://doi.org/10.4102/jamba.v11i1.703)
- **Volenzo, T., Singoro, B., & Wakhungu, J.** (2013). Managing climate change risks for sustainable food security in Kenya: Prospects and options. *International Journal of Disaster Risk Reduction*, 5(1), 13-30.
- **Volenzo Tom and John Odiyo** (2020). Unpacking the nexus between policy field, risk management and environmental externalities in adaptation planning: The case of smallholder dairy farmer production systems, western Kenya. Sustainability. [Preprints](#)
- **Volenzo T E** and Makungo R.O (2023) . Exploring the role of financing in sustainable governance of Water- Energy – Food nexus: the case of small-scale farmer households, Western Kenya. **Environmental Science and Policy.** In press

Authored & co-authored books and book chapters.

- Joshua N. Edokpai, **Tom E. Volenzo**, Rachel Makungo, Fhumulani Mathivha, Nkuna Rivers, John Odiyo (2019). *Influence of global climate change on water*

resources in South Africa: towards an adaptive management approach. In: Water Conservation and Wastewater Treatment in BRICS Nations. Technologies, Challenges, Strategies and Policies 2020, Pages 83-115. **Elsiever Publishers.** <https://doi.org/10.1016/B978-0-12-818339-7.00005-9>.

- Oruko, R.O., Ogola, H.J.O., Edokpayi, J.N., **Volenzo, T.E.**, Odiyo, J.O. (2021). Integration of Sustainable Development Goals into Leather Tanning Industries in Sub-Saharan Africa. In: Leal Filho, W., Pretorius, R., de Sousa, L.O. (eds) Sustainable Development in Africa. World Sustainability Series. **Springer**, Cham. https://doi.org/10.1007/978-3-030-74693-3_32

Conferences Papers

- **Volenzo Tom E** ; Munyai, F., and Odiyo, J .J (2019). Communication for Development in water quality related risk reduction planning: A conceptual framework. First international conference on sustainable management of natural resources (ICSMNR) . JN Edokpayi, WM Gitari, EM Stam, SE Mhlongo (eds.) **ISBN 978-0-620-82267-1176**. 15 -17th October, 2018, Bolivia lodge, Polokwane, South Africa . Can be Accessed online from the university of Venda Repository: <http://hdl.handle.net/11602/1280>. Pp 176-184
- Potential of plant-based Bio flocculants in sustainable rural water supply and smallholder farmer aquaculture systems: The case of *Diospyros mespiliformis*. 19th Water Net Symposium, Victoria falls Zambia.
- Accounting for enteric fermentation pathways in agroforestry- ruminant integrated production systems of the semi-arid regions, Kenya International Researchers Link Workshop on the Role of Smallholder Agroforestry in Combating Climate Change), Kisumu, Kenya, 17th to 22nd December 2017, Kisumu Kenya
- Policy framework for disaster risk reduction in adaptation to climate change by small-holders-*International conference on Disaster Risk Reduction and Conflict Resolution 18-20th, July 2012, Kakamega, Kenya*

Policy Briefs

- Mwendera E J., Musetsho K.D., Makungo R. , **Volenzo T.E** , Madzivhandila T., Mamphweli (N.S. , and Nephawe K.A.(2024) Integrating water-energy-food nexus innovations and practices into policy, governance and institutional frameworks for sustainable development in Vhembe District, Limpopo Province, South Africa. Waters . In press

Project reports

- *Integrating water-energy-food nexus innovations and practices into policy, governance and institutional frameworks for sustainable development in Vhembe District, Limpopo Province, South Africa* . **WRC C2020/2021-00392. Water Research Commission. Pretoria , South Africa. In Press.**

Academic Awards

- Msc DAAD in Country Scholarship
- NACOSTI Ph.D. Research Grant
- Postdoctoral fellowship (**DHET**)

Membership of Professional Organizations

- Member, Environmental Institute of Kenya No. 7332
- Member, Association of Disaster Management and Risk Reduction Society of Kenya
- Member, Sustainable Agriculture (a global online platform)
- Member, Natural Resource Management (a global online platform)

Consultancy Experiences

- Environmental and social impact Assessments with Government, Private sector and community-based organizations
- Resettlements and indigenous people planning
- Environmental Governance and Value Chains
- Risk assessments
- Life cycle assessment

Experiences and relevant courses attended.

- Fund raising and organizational Development.
- Implementation of ISO 9001:2000 Quality Management Systems
- Implementation and monitoring of ISO14001:2015
- Project Analysis including Result based management Frameworks.
- Participatory Monitoring and evaluation
- Adult learning and facilitation skills
- Integrated information management information systems (IMIS)
- Environmental and Social impact Assessment
- Senior Management Course, Kenya Institute of Administration
- Risk Management
- Compliance, Enforcement and Prosecution of Environmental offenses

ICT Skills/Competencies

- Database management and data analysis using packages such as SPSS, Stata, Excel, Instat
- Computer literacy in Ms office 365, PowerPoint, IMIS, desktop publishing
- E- learning – in Microsoft teams, zoom etc

ICT Skills/Competencies

- Database management and data analysis using packages such as SPSS, Stata, Excel, Instat
- Computer literacy in Ms Outlook, PowerPoint, IMIS, desktop publishing

Signed



20th July 2024