



CURRICULUM VITAE

Prof. Marifa Ali Mwakumanya (B.Ed.; M.Phil., PhD)
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Google scholar:

https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Maarifa+Mwakumanya&oq

ResearchGate: <https://www.researchgate.net/profile/Maarifa-Mwakumanya>

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BIODATA

- Full Name: Prof. Marifa Ali Mwakumanya (PhD)
- Date of Birth: 15th April, 1969
- Marital Status: Married
- Nationality: Kenyan
- Language: English/Swahili/Digo

Long Term Goal and objectives

My long-term goal as an Environmental scientist is to teach, carry out applied scientific research, undertake consultancies and engage in community service at the local, national and global levels to contribute to the sustainable development global agenda for the advancement of humanity. This forms the basis of my professional objectives to provide sustainable solutions through research on environmental challenges facing humanity for sustainable development. To share and exchange ideas through training, consultancy, publications and education on the sustainable conservation, utilization and management of resources and participate and take up critical roles in society to accelerate and advance human wellbeing at all levels for sustainable development.

Research interests

- Coastal and Marine Ecosystems Management with emphasis on Beach ecosystem dynamics, Marine Litter, Near-shore hydrodynamics and aquatic biodiversity
- Near shore sedimentology
- Climate Change Mitigation, Adaptation and Resilience
- Carbon footprint in agribusiness value chain and Life cycle analysis
- Environmental Law, Policy and Strategic Management
- Land and Environmental Governance and Management
- Mining and Environmental Corporate Governance
- Environmental and Social Impact of development programmes, policies and projects
- Education for Sustainable Development

EDUCATION BACKGROUND

Doctor of Philosophy (Ph.D.) in Environmental Sciences (Moi University 2009)

*Thesis Title: Morphodynamic Processes in Beach Erosion Vulnerability Assessment and Management.
A Case Study of Bamburi Beach along Mombasa Shoreline in Kenya*

Master of Philosophy (M.Phil.) in Geography, Moi University (2000)

Thesis Title: The Impact of Sea Waves on beach Morphology; A Case study of Nyali and Bamburi Beaches in Mombasa, Kenya.

Bachelor of Education (B. ED) in Geography and Economics), Egerton University (1994)

Kenya Advanced Certificate of Education (KACE) (MGEcon), Nkubu High School - Meru (A-level)) (1988-1989)

Kenya Certificate of Education (KCE), Nakuru High School (1984-1987)

Certificate of Primary Education (CPE), Burani Primary School, Kwale (1983)

WORK EXPERIENCE

Institution: UNESCO Regional Office for Eastern Africa, Nairobi

Position: Consultant-National Programme Associate, Leadership for Education for Sustainable development (LEAD ESD) Programme (June 2025 to present)

Responsibilities

1. Support collaboration and coordination

- Work closely with Kenyatta University, regional ESD Experts, and partners in the project, to mobilize expertise in the region to contributing to an ‘ESD policy literate’ and active Climate and Environmental Educators System.
- Co-facilitate meetings in collaboration with implementing partners and with the project ‘expert group’ in each of the participating countries to identify teacher educators to be trained; and conduct post training course preparation activities.
- In collaboration with the implementing partners, organise Regional Workshops with participants from Teacher Education Institutions (TEIs) for Early Childhood Care and Education (ECCE), Primary, Secondary and Technical Vocational Education and Training (TVET) in participating countries. The workshops to be held in Kenya.
- Facilitate the training workshops together with other project partners including Rhodes University, UNESCO Chairs on ESD related issues.
- Collaborate with an evaluation team and contribute to formative evaluation of the project activities

2. Support communication and outreach

- Develop and maintain an up-to-date database and electronic communications system with regular online newsletter communication with ESD experts and LEAD-ESD course participants.
- Issue a regional Call for Expressions of Interest to identify participating TEIs in the participating countries (Kenya, Rwanda, Seychelles, and Uganda) to participate in the LEAD-ESD training sessions conducted by Kenyatta University and the UNESCO ROEA.
- Develop and disseminate communication materials including a flyer, which provides basic information on the project and training programmes, its objectives and structure. Draft regular workshop and webinar updates and reports for online dissemination and media releases.
- In collaboration with Kenyatta University, draft and disseminate policy briefs on ESD Policy and Leadership Development.

3. Logistics and Administration

- During in-country workshops, arrange accommodation and local costs for participants for the training workshops (approximately 15 in Seychelles, 20 in Rwanda, 50 in Kenya and Uganda respectively) with a facilitation and appropriate support team.

- Oversee the design of and contribute to regular management and updating of the website for LEAD-ESD situated in Kenyatta University.

Institution: Pwani University

Positions: Director of Quality Assurance (DQA) (January 2024-Present)

Responsibilities:

- Institutionalizing the Quality Assurance at the University
- Developing, implementing and promoting quality assurance systems, structures in all University academic operations
- Developing clear procedures and standards of quality assurance for non-academic, administrative and other support service units of the university
- Organizing and facilitating periodic internal and external Quality Assurance of the university
- Chairing the Board of Quality Assurance (BQA) whose membership and terms of reference is prescribed in Schedule Six (6) of the Pwani University Statutes
- Undertaking any other duty as prescribed by the Vice Chancellor on behalf of the University Council

Dean of the School of Environmental and Earth Sciences (Sept, 2014 to September, 2023)

Responsibilities:

- Undertake and participate in research and teaching activities,
- Co-ordinate the allocation and effective utilization of all teaching resources,
- Supervise the use of Equipment and other University property in the School
- Coordinate the setting, moderation and processing of examinations in the School.
- Chief examiner of the department. Identify and recommend new courses
- Take charge of curricula development and periodic review and evaluation in liaison with all stakeholders
- Recommend to the University suitable admission criteria for courses in the school.
- Hold regular departmental meetings to disseminate and exchange ideas on policy, academic and other matters.
- Participate in resource mobilization for various University Programme
- Organize departmental research seminars
- Supervise and mentor new members of staff in the School
- Represent the welfare of staff in the department.
- Prepare school budget and oversee the management and control of finances within the school.
- Supervise and Mentor PhD and Masters Students

Institution: Pwani University

Positions: Associate Professor, Environmental Sciences (June 2022-Present)

Responsibilities:

- Teaching and Supervision of Masters and PhD students
- Research, Innovation and publications
- Community engagement

Institution: Pwani University

Positions: Senior Lecturer, Environmental Science (2013-June 2022)

Responsibilities:

- Teaching and supervision of Masters and PhD students
- Research, Innovation and publications
- Community engagement

Other University experiences and responsibilities

- Professor Pwani University June 2022 to date
- Senior Lecturer Pwani University Sep 2012 – June 2022

- Lecturer Pwani University June 2009 – September 2012
- Assistant Lecturer Masinde Muliro University June 2003 – Aug 2009
- Chairperson Pwani University Security committee 2019 – date
- Member Pwani University Risk Assessment and Evaluation Committee
- Dean (Founding), School of Environmental and Earth Sciences (SEES), October 2015 to 2023date
- Member Research and Innovation Committee (on going)
- Member School Curriculum Review & Development committee (on going)
- Member Department of Environmental Sciences Curriculum Committee (on going)
- Member Department of Environmental Sciences Postgraduate Committee (on going)

2003 - 2009

Institution: Masinde Muliro University of Science and Technology
Position: Lecturer, Geography (Physical Geography)
Responsibilities: Teaching, Research and Community Engagement

2007-2003

Institution: Islamic University in Uganda (IUIU)
Position: Part-Time Lecturer, Environmental Geomorphology
Responsibilities: Teaching, Research and Community Engagement

Other Current Responsibilities:

Coordinator, Regional Centre of Expertise for the RCE-Greater Pwani on Education for Sustainable Development (ESD) – Activities in the Coastal Region

- Development of ESD strategies for the achievement of SGDs
- Development of IEC materials
- Monitoring and evaluation of activities of the RCE carried out by stakeholders.
- Networking with Continental and Global RCEs for benchmarking and implementing ESD objectives

Environmental Management Consultant with Mesa Ventures Limited, (2018 – date)

Areas of consultancy include but not limited to;

- Consultancies Environmental Impact Assessment/Environmental Auditing (**EIA/EA Lead Expert N0. 0257**)
 - Environmental Sustainability and Climate Change
 - Developing Strategic Environmental and Social Assessment (ESIA)
 - Social Environmental Impact Assessment (SEA)
 - Developing Strategic and Environmental Management Polies
 - Research on Environmental Justice and Corporate Accountability
 - Researches in Environmental Corporate Accountability
 - Education for Sustainable Development (ESD) and the Environmental Management
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TRAINING, REFRESHER COURSES, SEMINARS AND WORKSHOPS

Trainings

6th -7th February 2025

Training: Internal ISO 9001:2015 on Quality Management Systems (QMS)

Institution: Bureau Veritas, at Pwani University, Kenya

18th -22nd November, 2019

Training: Constructed wetland technologies for wastewater treatment

Institutions: Training organized by Kenya Marine and Fisheries Research Institute (KMFRI) in collaboration with Western Indian Ocean Science Association (WIOMSA) and UNEP Nairobi Convention, on 18th -22nd November, 2019, Mombasa, Kenya

8th-10th May 2017

Training: Baseline Coastal Data Acquisition, Management and Application to Decision Making.

Institution: Training organized by The University of Western Australia Ocean Institute (UWA-OI). Held at University of Mauritius, **Mauritius**

4-5 February 2016

Training: **Biodiversity value chain write shop.**

Institutions: Training organized by World Agroforestry Centre (ICRAF) African Network for Agriculture, Agroforestry and Natural Resources Education (ANAFE) through Intergovernmental Authority on Development (IGAD) Biodiversity Management Programme (BMP) in the Horn of Africa, Cross Border Research and Training Exchange, Write shop and Excursion project, funded by the European Union

16-28th November, 2015

Training: Biodiversity value chain write shop

Institutions: World Agroforestry Centre (ICRAF) and African Network for Agriculture, Agroforestry and Natural Resources Education (ANAFE) through Intergovernmental Authority on Development (IGAD) Biodiversity Management Programme (BMP) in the Horn of Africa, Cross Border Research and Training Exchange, Write shop and Excursion project, funded by the European Union

18th to 20th March 2014

Training: Biodiversity and Environmental Protection for COAST Project

Institutions: Coastal Tourism and Biodiversity Conservation. Organized by UNWTO, UNIDO and UNEP at Millennium Hotel, Bagamoyo, **Tanzania**

12-18th October, 2013

Training: Training on climate Change for the management of shorelines and beaches (Coastal Ecosystems)

Institution: Organised by UNESCO and Rhodes University, **South Africa**

28th September-1st October 2010

Training: Certificate in University Management skills

Institutions: Pwani University/Technische Universitat Dortmund

14th August-1st September 2006

Training: Environmental Impact Assessment and Audit (Environmental Impact Assessment and Audit skills)

Institution: Moi University

Qualification: Certificate in Environmental Impact Assessment and Audit (ESIA/EA)

NATIONAL, REGIONAL AND INTERNATIONAL RESPONSIBILITIES

- Project Steering Committee Member, The Nairobi Convention Project on Implementation of the Strategic Action Programme (SAP) for the protection of the Western Indian Ocean from Land-based sources and activities (WIOSAP). UNEP -Nairobi Convention.
- Member, Forum for Academic and Research Institutions (FARI). FARI is a consultative, communication and advisory body of the contracting parties of the Nairobi Convention and a network of academic and

research institutions in the assessment and science-based management of marine and coastal environment. WIOMSA-Nairobi Convention.

- Coordinator, Regional Centre of Expertise for the RCE-Greater Pwani on Education for Sustainable Development (ESD) and achievement of SDGs. UNU – Local and National Think-tank on SDGs.
 - Member, Mwache Dam Physiographic study advisory technical group. Water Security and Climate Resilience in the Coastal Region, Kenya. Mwache Dam Multipurpose dam project 2017
 - Member, Technical Advisory Committee to evaluate the Billionaire Club Beach erosion and its short term, mid-term and long-term mitigation. Director General, Kenya Wildlife Services KWS/DIR/223 of 3rd November, 2016
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GRANT AWARDS AND PROJECT IMPLEMENTATION

- Designed and implementing the C-PaCTS Partnerships and Synergies for Knowledge Transfer, Coastal Resilience and Sustainable Community Development, A collaborative project implemented by Technische Universität München (TUM) in Deutschland, das Institut Teknologi Bandung (ITB) in Indonesia and the Pwani University (PU) in Kenya. (April, 2025-2028)
 - Designed and implemented the BIOCULT project Reconciling livelihood needs and cultural conservation in the Kenyan Kaya forests and biodiversity hotspots Reconciling livelihood needs and cultural conservation in Kaya forests biodiversity (BIOCULT project Funded by the DAAD Grant 2021-2024 <https://biocult.net>)
 - Designed and implemented as Project Manager in a project on Scale-up Turtle conservation by establishing a Locally Managed Marine Area (LMMA) in Marereni in Magarini Sub-county in Kilifi. The aim of the project is to protect the endangered sea turtles and their habitats, by creating a protected zone and providing alternative livelihoods to enhance the wellbeing of the fishing communities in the area. The project is funded by IUCN-SOS.
 - Designed and implemented the project Reconciling livelihood needs and nature conservation in East African forest biodiversity hotspots Reconciling livelihood needs and nature conservation in East African forest biodiversity (Funded by the DAAD Grant)
 - Designed and implemented the MARG 1 Grant on research on Evaluation of Carbon sequestration on seagrass meadows of Malindi Marine Park, in Malindi. The grant was funded by Western Indian Ocean Association (WIOMSA).
 - Designed and implemented the project on “*Enhancing Food Security among Coastal Fisher Communities: Promoting Small Scale Mariculture Technologies along the Kilifi Creek*”. National Council For Science and Technology (NACOST) funded project on Mariculture along Kilifi creek in partnership with Kibokoni community.
 - Designed and implemented NACOST funded project on Fish Farming along Mtwapa Creek. The project is entitled “*Introduction and Development of Integrated Cage-Pond fish farming System along the Kenyan coast: An integrated components approach*”. Funded by NACOST.
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WORKSHOPS AND CONFERENCES

- Participated in a UNDP Kenya Accelerator Lab project on water and climate change in Tana Rivers County. The lab involved using innovative Collective Intelligence Design Studio to map out water sources and provide an Interactive Collaborative Map for Planning for innovating solutions to the water access

challenges in the County. The Accelerator Lab project was organized by UNDP Kenya and County Government of Tana River on 15th July-4th August 2023 in Hola, Tana River County, Kenya.

- Participated in a BIOCULT Project meeting to brainstorm and develop a new project for the Kenya Kayas biodiversity conservation. The meeting was organized Salzburg University in Austria under the auspice of the DAAD funding programme on 22nd-24th June, 2023 at Salzburg University in Salzburg, Austria.
- Participated and presented a paper on “*Land cover land use (LCLU) changes on the Taita Hills Forest fragments in Ngerenzi area, Taita Taveta County, Kenya*” at the 6th European Conference of Tropical Ecology (GTOE conference 2023). The conference was organized by European Ecological Society on 19th-22nd June 2023 at the University of South Bohemia in Ceske Budejovice, Czech Republic.
- Participated in a Research colloquium on International Development Studies. The Colloquium was organized by Pasau University, Department of Geography under the auspice of the DAAD funding programme, on 15th -19th June, 2023 at Pasau University, Pasau, Germany.
- Participated in a BIOCULT Project meeting to brainstorm and develop a new project for the Kenya Kayas biodiversity conservation. The meeting was organized Martin Luther University Halle-Wittenberg under the auspice of the DAAD funding programme on 13th-15th June, 2023 at Martin Luther University Halle-Wittenberg, Germany.
- Participated in the sixth PSC meeting of the WIOSAP project and the FARI meeting as a member of the Project Steering Committee and Forum of Academic and Research Institutions (FARI). The meeting was organized by the Nairobi Convention under the project on ‘Implementation of the Strategic Action Programme for the protection of the Western Indian Ocean from land-based sources and activities’ (WIOSAP), held 5th – 9th July 2022 in Nosy Be, Madagascar.
- Participated in the Preparatory experts meeting for the 5th session of UNESCO/IOC’s sub commission for Africa and adjacent Island States. Meeting was organized by the IOC sub commission for Africa and adjacent Island States, UNESCO Regional Bureau for Science in Africa, held on 3rd -4th March, 2019 in Mombasa, Kenya
- Participated in 9th Conference of Parties (COP 9) to the Nairobi Convention in Mombasa. The COP 9 was organized by the UN- Nairobi Convention for the Protection, Management and Development of the Coastal and Marine environment in the western Indian ocean held on 29th -31st August, 2018, Mombasa, Kenya
- Participated in the 10th Global RCEs conference on Education for Sustainable Development. Conference organized by United Nations University, in Yogyakarta on 23rd November – 25th November, **2016**. Yogyakarta, Indonesia
- Participated in workshop on Partnership on Science to Policy Forum on 11-12th October, **2016** organized by the Secretariat of the Nairobi Convention (UNEP regional Seas Programme) and WIOMSA at Coral Strands Hotel in Mahe, Seychelles.
- Participated and attend the 6th African RCE conference on Developing Capacities of the African RCEs for the implementation of the Global Action Programme on ESD and achievement of the SDGs on 24th to 26th August **2016** at Kenyatta University Conference Centre (KUCC) in Nairobi
- Participated in UNESCO World Conference on Education for Sustainable Development (ESD). World conference organized by UNESCO on 10th November, **2014**, in Aichi, Nagoya Japan.

- Attended the 9th Global RCEs conference on Education for Sustainable Development. Conference organized by United Nations University, in Okayama on 03rd November – 8th November, **2014**. Okayama, Japan.

CONSULTANCIES AND OTHER ENGAGEMENTS

- August 2024: Lead Consultant for consultancy service to Conduct Product Environmental Footprint Assessments (PEFA) and Implement Sustainability Measures for Priority Agricultural Value Chains in Kenya under the BEEEP Programme. Assessment organized by Sigmund Peak International Limited (SPIL) info@sigmundpeak.co.ke (**On-going**)
- June 2024: Lead consultant in conducting a Comprehensive Biodiversity Assessment in the Context of Aquaculture and Fisheries in Coast and The Lake Regions of Kenya. Study commissioned by Mennonite Economic Development Associates of Canada (MEDA-Kenya). <https://www.meda.org/country/kenya>. (**Completed**)
- April 2024: Project Coordinator, Coast Kenya Region, for the H2 Atlas Africa Project Organized by Jürich Forschungszentrum in conjunction with Machakos University. The overarching role is to facilitate the projects' data collection through coordination of Research Assistants and Stakeholder workshops. Machakos University, Department of Physical Sciences, P. O. Box 136, 90100, Machakos. Email: info@mksu.ac.ke (**Completed**)
- April 2024: Lead Consultant on Environmental and Social Impact Assessment (ESIA) of the proposed Borehole drilling of Borehole 6 in Kilole wellfield in Kinondo Ward, Kwale County for Kwale Water and Sewerage Company (KAWASCO) at Kwale Headquarters. World Bank funded project for KAWASCO. Kwale Water and Sewerage Company, P.O BOX 18 – 80403, KWALE, Tel: 041 2014155, Email: info@kwalewater.co.ke; (**Completed**)
- April 2024: Lead Consultant on Environmental and Social Audit (EA) of the Second Baricho – Kakuyuni Pipeline Water Supply Project. LOT 1: Second Baricho –Kakuyuni Pipeline, a World Bank funded project for Coast Water Works development Agency, P.O. BOX 90417-80100, Mombasa Telephone: 041-2315230, Email: info@cwvda.go.ke (**Completed**)
- March-April 2024: Lead Consultant on Environmental and Social Impact Assessment Report for the Proposed Tomato Agrofood Processing Plant in Mijomboni, Kilifi County. Consultancy awarded by Mijomboni Poultry and Agrofoods Limited, P.O. Box 582-80202, Watamu. Tel: 0759060005, email: mwakarisa78@gmail.com. (**completed**)
- January-March 2024: Lead consultant on Environmental and Social Impact Assessment (ESIA) Report for the Proposed Establishment of a Silicon Processing Plant on L.R. No. Kilifi/Mtondia/194 At Mkoroshoni Area, Kilifi Township, Kilifi County. Consultancy awarded by German Kilifi (EPZ) Limited, P.O. Box 99172-80107 MOMBASA. germankilifi@gmail.com. (**Completed**)
- May – December 2023: Development of the JCMA for Malindi-Ungwana Bay Target area under the COMRED Coastal Consulting Ltd. Contract awarded by Kenya Marine Fisheries and Socio-Economic Development (KEMFSED) Project. Establishment and Development of Joint Co-Management Areas (JCMAS) in Kenya's Nearshore Waters of Malindi-Ungwana Bay, TARGET NO. 2 TANA KILIFI. COMRED Coastal Consulting Ltd- KE-MOALF-C1.2-2021-010-QCBS (**Completed**).
- May 15th to 4th September 2023: Conducted a UNDP Kenya Accelerator Lab Research Study on water and climate change in Tana Rivers County. The lab involved using innovative Collective Intelligence Design Studio to map out water sources and provide an Interactive Collaborative Map for Planning for innovating solutions to the water access challenges in the County. The Accelerator Lab project was organized by

UNDP Kenya and County Government of Tana River on 15th May-4th September 2023 in Hola, Tana River County, Kenya.

- March-June 2023: Lead Consultant on Environmental and Social Impact Assessment (ESIA) of the proposed Borehole drilling in Kilole wellfield in Kinondo Ward, Kwale County for Kwale Water and Sewerage Company (KWAWASCO) at Kwale Headquarters. World Bank funded project for KWAWASCO. Kwale Water and Sewerage Company, P.O BOX 18 – 80403, KWALE, TEL: 041 2014155, Email: info@kwalewater.co.ke; (Completed)
 - June 2022: Lead consultant to assess the Environment and Climate Change activities and prepare academic papers on review of the Environment Action Plans (EAPs) promoted by MEDA and on the utilization of the Environmental sustainability grant (ESG) approach in Kenya through the M-SAWA project. The consultancy was offered to Mennonite Economic Development Associates (MEDA-Kenya).
 - July-August 2021: Lead Consultant on Environmental and Social Impact Assessment (ESIA) of the proposed Office Complex building for Kwale Water and Sewerage Company (KWAWASCO) at Kwale Headquarters. World Bank funded project for KWAWASCO. Kwale Water and Sewerage Company, P.O BOX 18 – 80403, KWALE, TEL: 041 2014155, Email: info@kwalewater.co.ke; (Completed)
 - May – July 2021: Lead consultant on Environment and Climate change with Mennonite Economic Development Associates (MEDA) to conduct research on environment and climate change across key sectors of agriculture/agribusiness, building/construction, blue economy, hospitality/tourism and industrial automation and robotics where employment and self-employment opportunities exist a part of the Labour Market Assessments (LMAs) to implement the *Young Africa Works-Kenya: Youth Employability through Technical and Vocational Education and Training (Young Africa Works in Kenya-TVET)* Program in Kenya under the . **Completed.**
 - September, 2020: Lead consultant on Environment and Climate change with Mennonite Economic Development Associates (MEDA) in developing a proposal for the upcoming project on Leveraging Equality for Gender-Inclusive Economic Development (LEGEND). The project focusing on private sectors development for micro, small, and medium-sized businesses in the poultry, fisheries, and horticulture sectors; with focus on economic opportunities for women in business (**completed**).
 - August, 2020 Consultancy Services to Develop an Inventory on Hazardous Waste Disposal Facilities in Kisumu, Mombasa, Nakuru, Nairobi and surrounding Counties. Ministry of Environment and Forestry, P. O. Box 30126 – 00100, N.H.I.F Building Ragati Road, Nairobi, Kenya (**Completed**)
 - March 2019: Environmental and Social Impact Assessment (ESIA) Study Report on The Proposed Steel Galvanizing Plant at Uwanja Wa Ndege, Kaling'ombe Sub-Location, Rabai Sub-County in Kilifi County. Roofings Kenya Limited, P.O. Box 16923-80100, Mombasa, Kenya (**Completed**)
 - June 2018: Mapping of Seagrass Meadows and Coral Reef in South Coast Kenya Under the Kenya Climate Change Adaption Programme. Consultancy Services to Coast Development Authority (**Completed**)
March, 2018: Development of the Kwale County Integrated Development Plan. County Government of Kwale (**completed**)
 - July 2017: Survey and Design of proposed Dagamra Irrigation Project in Kilifi County. Client; County Government of Kilifi, P.O. Box 519-80108, Kilifi (**Completed**)
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PUBLICATIONS

- Hamisi Tsama Mkuzi, **Maarifa Ali Mwakumanya**, Tobias Bendzko, Norbert Boros and Nelly Kichamu (2026). Land Tenure, Socio-Economic Drivers, and Multi-Decadal Land Use and Land Cover Change in the Taita Hills, Kenya. *Wild* 2026, 3(1), 1; <https://doi.org/10.3390/wild3010001>. Accepted: 17 December 2025.
- Jan Christian Habel, Anthony Githitho, Maria Fungomeli, Mike Teucher, Halimu S. Shauri, **Maarifa A. Mwakumanya** & Christine B. Schmitt (2025). Limits of cultural and traditional mechanisms in tropical forest conservation. *Biodiversity and Conservation*. <https://doi.org/10.1007/s10531-025-03117-7>, Accepted: 23 June 2025.
- Lynn Njeri Njuguna, Werner Ulrich, **Maarifa Ali Mwakumanya**, Patrick Chiyo⁴, Jan Christian Habel (2025). Effects of elephants on seed dispersal and germination of *Balanites maughamii* in an East African dry coastal forest. *Biological Journal of the Linnean Society*, Volume 144, Issue 4, April 2025, blaf015, <https://doi.org/10.1093/biolinnean/blaf015>. April 2025.
- Asma H. Awadh, **Maarifa A. Mwakumanya**, Mohamed Omar (2024). The viability of seagrass ecosystems for supporting dugong recovery in Kenya. *Western Indian Ocean Journal of Marine Science* 23(1): 19-26. <https://doi.org/10.4314/wiojms.v23i1.3>.
- Kayusi Ondabu Fredrick, **Maarifa Ali Mwakumanya** and Mwakio P. Tole (2023). Slope stability analysis in soapstone mining sites in Nyamarambe, Kisii County, Kenya. *International Journal of Geography, Geology and Environment* 2023; 5(2): 95-110. DOI: <https://doi.org/10.22271/27067483.2023.v5.i2b.177>
- Jan Christian Habel, Kathrin Schultze-Gebhardt, Halimu S. Shauri, **Ali M. Maarifa**, Marianne Maghenda, Maria Fungomeli and Mike Teucher (2023). Kaya forests: nucleus of cultural and biological diversity and functionality. *Journal of Tropical Ecology*, Volume 39, 2023, e21. Published online by Cambridge University Press. <https://doi.org/10.1017/S026646742300010X>
- Nakapu Daniel Hussein, **Maarifa Mwakumanya** and Mwakio Tole (2023). The Trends and Effects of Flood Occurrences in the Shire River Basin in Chikwawa District of Malawi: A Historical Perspective (1980 - 2019). *American Journal of Environment Studies*. Vol.6, Issue 1, pp 59 - 73, 2023, ISSN 4520-4738 (Online). <https://doi.org/10.47672/ajes.1435>
- Nakapu Daniel Hussein, **Maarifa Mwakumanya** and Mwakio Tole (2023). Flood Forecasting in Malawi's Shire River Basin. *American Journal of Environmental Sciences* 2023, 19 (2): 43.5. <https://doi.org/10.3844/ajessp.2023.43.53>
- Asma Hadi Awadh, **Maarifa A. Mwakumanya** and Mohamed Omar (2021). *Dugongs' (Dugon Dugong) traditional values in Kenya; and their influence on their conservation*. *American Journal of Environment Studies* ISSN 4520-4738 (Online) Vol.4, Issue2, pp 1-13, 2021 DOI: <https://doi.org/10.47672/ajes.759>
- Asma Hadi Awadh, **Maarifa A. Mwakumanya** and Mohamed Omar (2021). Dugongs in Kenya –a survey on status and Trends. *American Journal of Environment Studies* ISSN 4520-4738 (Online) Vol.4, Issue 1, pp 76-87, 2021. DOI: <https://doi.org/10.47672/ajes.758>
- **M A. Mwakumanya** (2020). Beach erosion hazard vulnerability assessment of Bamburi beach in Mombasa, Kenya. *International Journal of Environment and Development* (Vol. 12, No. 3, March 2021). <https://doi.org/10.18178/ijesd.2021.12.3.1322>
- B. Othoche, **M Mwakumanya**, Tunje. Joseph, K Lenard (2020): Predicting and Forecasting of Changes in Weather Patterns in the Coastal Lowlands along the Western Indian Ocean Shoreline, Kenya. *IOSR Journal*

- Jan Christian Habel, Joslyn Muthio Nzau, Beate Apfelbeck, Tobias Bendzko, Christina Fischer, Josphert N. Kimatu, **Maarifa A. Mwakumanya**, Marianne Maghenda, Ronald K. Mulwa, Marco Rieckmann, Halimu Shauri, Mike Teucher & Christine Schmitt (2020). Land scarcity, communication gaps and institutional confusions influence the loss of biodiversity in south-eastern Kenya. *Biodiversity and Conservation*. <https://doi.org/10.1007/s10531-020-02043>
- Gerald Irungu Maina, **Maarifa Ali Mwakumanya**, Andrew Wekesa Wamukota, (2020). Current Status in Quality of Treated Wastewater for Potential Reuse Scheme in Ruai, Nairobi County, Kenya. *Journal of Environment and Earth Science* www.iiste.org. ISSN 2224-3216 (Paper) ISSN 2225-0948 (Online) Vol.10, No.7, 2020. <https://doi.org/10.7176/jees/10-7-07>
- Bertha Othoche, **Maarifa Mwakumanya**, Tunje Joseph, Kiti Lenard, (2020). Assessment of Weather Variability and Climate Change in the Coastal Lowlands along the Western Indian Ocean Shoreline, Kenya. *IOSR Journal of Humanities and Social Science (IOSR-JHSS) Volume 25, Issue 7, Series 4 (July. 2020) 17-31 e-ISSN: 2279-0837, p-ISSN: 2279-0845. www.iosrjournals.org. https://doi.org/10.9790/0837-2507041731*
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 - **Mwakumanya, M.A** and Odhiambo, B.D.O (2007): Beach Morphological Dynamics, An analysis of Nyali and Bamburi Beaches, Mombasa, Kenya. *Journal of Coastal Research*. Vol. 23, No. 2. West Palm Beach, Florida, USA
 - **Mwakumanya, M.A** and Tole, M.P, (2003) Coastal Erosion at Mombasa Beaches: Hydrodynamic and Morphological Interactions: In Hoorweg and Muthiga, (Eds) *Recent Advances in Coastal Ecology, Studies from Kenya*. African Studies Centre Research Report 70/2003. Leiden, Netherlands.
 - **Mwakumanya M.A (2013)**: RCE-Greater Pwani Contribution to Research and Innovation through Community Engagement. Paper presented in Community –Engaged Research Workshop and 3rd African RCEs Meeting on 20-21st August 2013 in Abuja, Nigeria
 - **Mwakumanya M. A.**, Mwamuye T. P. and Najya Mohammed (2013): The Levels of Anthropogenic Pollutants and Their Impact On Primary Productivity On the Coastal Marine Waters Of Mtwapa Creek, Kenya. A Paper presented in a Humboldt Koleng 3 Conference at Boma Inn in Nairobi from 9th to 12th April 2013
-

Book Chapter

- Halimu Shauri, **Maarifa Mwakumanya**, Sellah Lusweti (2024). Education for Sustainable Development in Kenya In World Review on Environmental and Sustainability Education in the Context of the Sustainable Development Goals (Eds. Marco Rieckmann, Rosalba Thomas Muñoz) 1st Edition, First Published 2024. Imprint CRC Press. eBook ISBN 9781003145202.
- Daniel Nakapu Hussein, **Maarifa Ali Mwakumanya** and Mwakio Tole (2023). The Trends and Effects of Flood Occurrences in the Shire River Basin in Chikwawa District of Malawi: A Historical Perspective (1980 - 2019) in Exploring Environmental Issues. AJPO Journals and Books Publishers. <https://ajpojournals.org> .ISBN: 978-9914-745-24-5, Vol 6 No 1 (2023)
- Jan de Leeuw, **Maarifa Mwakumanya**, Florence Bernard, Rob Dodson and Christina Ender (2017). Carbon credits, social development and wildlife conservation in Kasigau. In Jan de Leeuw, Sammy Carsan, Grace Koech, Aisséto Dramé Yayé and Josephat Nyongesa (Eds): Biodiversity-Based Value Chains. A review of best practices for selected biodiversity value chains that promote pro-poor conservation in the Horn of Africa

Poster Presentation

- Oral Poster Presentation “Evaluation of carbon sequestration in the seagrass meadows of Malindi Marine Park and Malindi Marine Reserve, Kenya” at the 9th WIOMSA Scientific Symposium at Wild Coast Sun, Port Edward, South Africa on 26th to 31st October, 2015
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GRANTS AND AWARDS

Projects/Proposals Awarded

DAAD GRANT 2021-2024 (German Academic Exchange Service)

The project seeks to understand the role cultural beliefs and heritage and biodiversity conservation in the context of the activities of the Kaya Forests in Kenya. The project is implemented through transdisciplinary network involving researchers, students and stakeholders, to study and learn about the relevance of cultural forest sites in Kilifi, Kenya and the Church forests in Ethiopia.

DAAD GRANT 2016 2020

Reconciling livelihood needs and nature conservation in East African forest biodiversity hotspots Reconciling livelihood needs and nature conservation in East African forest biodiversity hotspots of Arabo Sokoke Forest, **Riparian gallery forests** around Kitui and **Taita Hill cloud forests**. The project focuses on developing new strategies for long-term nature conservation and forest ecosystems livelihood by the local human population. It brings together scientists and practitioners, and to train and sensitize young students being the decision-makers of tomorrow in this highly fragile country (**Completed**)

WIOMSA MARG 1 Grant 2015

- **MARG 1 Grant** on research on *Evaluation of Carbon sequestration on seagrass meadows of Malindi Marine Park, in Malindi*. The grant is offered by Western Indian Ocean Association (WIOMSA) for individual researchers. (**January 2015-December, 2015**) (**Completed**).

NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY (NACOSTI) GRANTS

- Implementing NCST project on Mariculture along Kilifi creek in partnership with Kibokoni community. The project is entitled “*Enhancing Food Security among Coastal Fisher Communities: Promoting Small Scale Mariculture Technologies along the Kilifi Creek*”. Project that won Kshs. 6,000,000 (Six Million) (**Completed**)
- Implementing NCST funded project on Fish Farming along Mtwapa Creek. The project is entitled “*Introduction and Development of Integrated Cage-Pond fish farming System along the Kenyan coast: An integrated components approach*”. Project that has won Kshs. 7,000,000 (Seven Million) (**Completed**)

RECOMAP-PROJECT GRANT

- Coordinated implemented and equipping of GIS and Laboratory equipment from the European Union (EU) through **ReCoMap** program of the Western Indian Ocean Commission (**Funded and closed**)

WWF-LAMU (GRANT AGREEMENT: FY 13 CKP/ESD/10002360/21

- An awareness and needs assessment of Education for Sustainable Development (ESD) and Regional Centre of Expertise (RCE-Greater Pwani) in the coastal region (**Implemented and closed**)

DEVELOPMENT TRUST FUND (CDTF)

- Grant from **CDTF** to implement a community based project on mitigating climate change and improvement of livelihood in Magarini district. The project title is “*Enhancing Community Participation in Environmental Management through Alternative Livelihood and Capacity Building in Marereni, Magarini District, KILIFI County*” The projected grant is Ksh. 18,000,000 by (**Closed**)

PWANI UNIVERSITY RESEARCH GRANTS (PURB)

- Grant from the University Deans Committee. Undertaking research on “*Enhancing community documentation of indigenous knowledge on the biodiversity of wetlands resources of Arabuko Sokoke forest and their conservation*”. Project that has won Kshs. 250,000 (Two hundred fifty thousand) **(Completed)**
 - Grant from the University Deans committee. Implementing a research project entitled “*Contribution of anthropogenic pollutants on fertility of the coastal marine waters of Mtwapa, Mida and Kilifi creeks, Coast province, Kenya*”. Project that has won Kshs. 250,000 (Two hundred fifty thousand) **(Completed)**
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STUDENTS SUPERVISION

PhD Students

- Daniel Nakapu Hussein (MG82/PU/36134/18). Integrating Indigenous and Scientific Knowledge for Flood Forecasting and Mitigation in the Shire River Basin, Malawi (Pwani University 2024) **(Graduated)**
- Asma Hadi Awadh (N83/PU/3010/14): An Evaluation of the Status, Distribution, Threats and Management of Dugongs in The Marine Waters of Kenya. PhD in Environmental Science. (Pwani University 2022). **(Graduated)**
- Mrs. Bertha Othoche: Climate change and livelihood in the Lower Tana and Athi River basins. PhD in Geography (Pwani University 2011) **(Graduated)**
- Gerald Irungu Maina (MG81/PU/36135/16): Adoption of treated wastewater use regime for sustainable community livelihoods in Ruai, Nairobi County, Kenya. **(Graduated)**
- Wanyonyi Geoffrey Ingubo: An analysis of opportunities for improving energy efficiency and reduction of Gas emissions in the Kenya’s manufacturing sector. PhD in Environmental Science (Pwani University 2011) **(On-Going)**
- Anthony Odonyo Odongo: Modelling of Groundwater System of the Malindi-Ngomeni Sand Dune Catchment (Pwani University 2012) **(On-going)**

Masters Students

- Juliane Oehl (Admin. 220214991): Soil Organic Carbon as an Ecosystem Function Indicator of Soil Under Pressure and Land Use Change in Kilifi County, Kenya. **M.Sc. Geography (Martin-Luther-University Halle-Wittenberg, Germany, 2024). (Graduated)**
- Joseph Sang Katungo (MG20/PU/36029/18): Spatial Variability of Organic Carbon in Sediment Across Rhizophora Mucronata Mangrove Zones in Kilifi Creek, Kenya. **M.Sc. Environmental Science (Pwani University 2024) (Graduated)**
- Catherine Chepkoech Munga (MG22/PU/36045/21): Assessment of the Status of the Sabaki Estuarine in Magarini Sub-County of Kilifi County, Kenya. **M.Sc. Geography (Pwani University, 2024). (Graduated)**
- Kayusi Ondabu Fredrick (MG22/PU/36050/21): Analysis of the Effects of Artisanal Soapstone Mining on Slope Stability in Nyamarambe Division, Kisii County, Kenya. **M.Sc. Geography (Pwani University, 2024). (Graduated)**
- Lynn Njeri Njuguna MG20/PU/36012/16: The influence of elephant s foraging on tree species regeneration and abundance in Arabuko Sokoke Forest, Kenya. **MSc. Environmental Science (Pwani University**

2022) (Graduated)

- Hamisi Mkuzi (MG20/PU/36061/16): Relationship between Land Use Land Cover Change and Tenure Systems on Taita Hills Forest Fragments Ecoregion: A Case Study of Kidangerenyi Location, Wundanyi. **M.Sc. Environmental Science (Pwani University 2022) (Graduated).**
- Jackline Ollando, 2019: The Viability of *Gracilaria Salicornia* Seaweed Farming for Commercial Extraction of Agar At Kibuyuni In Kwale County South Coast Kenya. **M.Sc. Environmental Science (Pwani University 2021) (Graduated)**
- Albert Akondo Musando (2015): Assessment of Ecosystem Services in Ecologically Restored Limestone Quarries of Bamburi Nature Trails in Mombasa County, Kenya. **M. Sc. Environmental Science (Pwani University 2021)(Graduated)**
- Bonventure Mwanzi Obeka: Evaluation of Groundwater Accessibility in Kilifi North Sub-County, Kilifi County, Kenya. (Pwani University, 2013). **M.A. Sociology (Graduated)**
- Abdulmajeed Omar Said: Vulnerability Assessment of Coastal Communities to Climate Change. A Case Study of Mangroves of Mida Creek Communities. (Pwani University, 2012). **(Graduated)**
- Angela Wairimu Kimaru: The Potential of Seagrass Fertilizer on Performance of Leafy Vegetables in Kilifi, Kenya (Pwani University, 2012) **(Graduated)**
- Nassra Issa Ali: Evaluation of Seaweed Farming at Jambiani In South District, Unguja-Zanzibar. **M. Sc. Environmental Science** (Pwani University, 2012) **(Graduated)**
- Victor Odongo Otieno: Evaluation of Carbon Sequestration in the Seagrass Meadows of Malindi Marine Park and Reserve, Kenya **M. Sc. Environmental Science** (Pwani University, 2012. **Graduated)**
- Josphine Mutiso (N50/PUC/2086/12): Status of corals and macroalgae in Kisite-Mpunguti Marine Ecosystem, Kenya **M. Sc. Environmental Science** (Pwani University, 2012) **(Graduated)**
- Seif Landi Mohamed (2015): Assessing the Structural Variability of Mangrove Forests along the Kenyan Coast. **M. Sc. Environmental Science (Pwani University 2015 (Graduated)**

**Internal Examination
(Masters Theses)**

- Collins Owuor (N83/PUC/2103/11): Assessment of factors affecting artificial groundwater recharge from roof harvested rainfall in coral aquifers Kilifi Town Kenya” **(PhD. Envi. Science) thesis**
- Moses Ndirangu Kamau (N50/PU/2086/12). Influence of seaweed extract (*Afrikelp*) in enhancing phytoremediation of Bio-digester effluent by Duckweed. **(Msc. Envi. Science) thesis**
- Stanley Wechuli Wanjala (C50/PUC/2098/11. Determinants of Health Care Service Utilization in Ganze District, Kilifi County of Kenya. **(MA Sociology) Thesis**
- Joseph Wanjala Kilwake N50/PUC/2083/12. Assessment of Borehole and Well Water Quality in Waa Location, Kwale County-Kenya. **(Msc. Envi. Science) thesis**
- Delphina Dali Mzozo (N50/PU/2270/13). “Evaluation of sustainable land management practices in the management of watershed: A case study of Kidaya Ngerenyi. Taita Taveta County, Kenya.” Master of Environmental Science **(Msc. Envi. Science) thesis**

JOURNAL REVIEW EXPERIENCE

Reviewer International Journal of Water Resources and Environmental Engineering (IJWREE).

- Reviewer, International Journal of Environmental Science and Technology (IJEST).
 - Reviewer, International Journal of Oceanography and Marine science (JOMS)
 - Reviewer, International Journal of Marine Science (IJMS)
-

AUTHORSHIP

Writer (author) of resource materials and trainer's guides and manuals (Business Studies book 1&2) for Secondary schools

- Dynamics of Business Studies form 1. Longhorn Publishers Ltd
 - Dynamics of Business Studies form 2. Longhorn Publishers Ltd
 - Dynamics of Business Studies form 3. Longhorn Publishers Ltd
 - Evaluation of teaching and learning resource materials for secondary schools in collaboration with Kenya Institute of Education
-

PROFESSIONAL MEMBERSHIP

- Association of Third World Scientists (ATWS), Kenya Chapter
- Environmental Institute of Kenya (EIK)
- Western Indian Ocean Marine Science Association. (WIOMSA)
- Global Ocean Acidification Observing Network (GOA-ON)

PERSONAL COMPETENCES AND SKILLS

- A team Player
- Group dynamics and management
- Programme development and implantation
- Developing linkages and networks
- Monitoring and Evaluation
- Policy formulation
- Strategic Planning, community mobilization
- Communication Skills

Social skills and competences

- Community mobilization, Tolerant, Listener, Cooperative and Social

Organisational skills and competences

- A team Player, Group dynamics and management, a leader, developing linkages and networks, community mobilization

Technical skills and competences

- Research skills, Advocacy skills, Technical Report Writing, Programme development and implementation, a leader, developing linkages and networks, Monitoring and Evaluation, Policy formulation, Strategic Planning, reviewing of scientific journals, GIS, Environmental Impact Assessment and Auditing, ToT, Writer (author), Proposal writing.

Environmental Assessment and Monitoring skills

- Certified Certificate Environmental Impact Assessment and Audit (NO. 0257)

Computer skills and competences

- Geospatial Analysis (GIS & Remote Sensing)
- Computer Literate in Microsoft Office Operating System
- Analytical Statistical Packages

Artistic skills and competences

- Humility
-

REFEREES

<p>Prof. Mwakio Tole Pwani University P.O. Box 195 - 80108 Kilifi, Kenya. Tel: 0733 812799 mwakiotole@gmail.com</p>	<p>Prof. Mlewa C. Mwatete Dean, School of Graduate Studies Pwani University P.O. Box 195 - 80108 Kilifi, Kenya Tel: 0734 970121 m.mwatete@pu.ac.ke</p>	<p>Prof. Benear D.O. Odhiambo Department of Geography Moi University P.O. Box 3900 Eldoret, Kenya Tel: 0735 859983 odhiambobdo@gmail.com</p>
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