MUSA YUSUPH MUNGAH

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PROFESSIONAL SUMMARY

Results-driven GIS and Natural resources conservation specialist with over 6 years of progressive experience in natural resource management, wildlife conservation, and geospatial technologies. Skilled in GIS mapping, remote sensing, ecological surveys, and land-use planning. Expertise in leading field projects, conducting environmental assessments, and engaging with stakeholders to implement sustainable resource management practices. Seeking to leverage technical expertise and research skills to support conservation initiatives, ecological monitoring, and sustainable development programs.

KEY COMPETENCES AND SKILLS

- Spatial and Ecological Analysis
- Natural Resource Conservation
- Research and Data Management
- Project and Field Operations
- GIS and Remote Sensing
- Communication and Interpersonal Skills
- Excellent Analytical and Problem-solving Skills
- Attention to Detail and Organizational
- Time Management and Multitasking
- Team Training, Supervision and SOP Enforcement

PROFESSIONAL EXPERIENCE

Ecologist and GIS and Remote Sensing Specialist, Documentation of the techno-cultural vocabulary and traditional on coffee in Mbeya, Songwe and Ruvuma Region – Tanzania Project 01st August, 2026 to date

Species/coffee occurrence data

- Environmental and climate data acquisition
- Remote sensing and LULC processing
- GIS preprocessing

Variable selection

Species distribution modelling

- Model validation
- Current suitability mapping
- Future climate scenario modelling
- Present–future comparison
- Climate refugia identification
- Priority-area mapping
- Functional-trait analysis
- Ecological interpretation
- Reports, maps and scientific publications

Assistant GIS and Remote Sensing Expert, Flood Prediction and Risk Zonation Project, 26th January – 30th July

- Data acquisition and management
- Spatial analysis and modelling
- Risk assessment and decision support

Assistant Technician
Udzungwa and Mikumi National Park, Morogoro, Tanzania
Jul – September 2025

- Supervised a BSc Natural Resource Conservation student during field training
- Prepare a weekly timetable for field activities
- Taught practical-based exercises
- Prepared assignments and other work for the student

Assistant Technician
Suitability mapping of milkfish ponds in the Five Coastal Region in Tanzania Project, 19th May, 2025 to 25th December, 2025

- Data collection and preparation
- Spatial analysis and multi–criteria evaluation
- Modelling and simulation
- Mapping and visualization
- Technical support and capacity Building
- Reporting and documentation

GIS &Remote Sensing Specialist
Geo Conserve Organisation (Part-time) | Arusha, Tanzania
Nov 2019–Dec 2025

- Collected and analyzed spatial and attribute data from protected areas to monitor wildlife populations, contributing to data-driven conservation decisions.
- Developed and updated GIS databases for habitat mapping, leading to increased efficiency in ecological monitoring by 30%.
- Supported biodiversity monitoring through satellite image analysis, identifying land cover changes and potential threats to ecosystems.

Assistant Technician
Field training at Ruaha National Park in Tanzania Project, 01st August, 2025 to 10th September, 2025

- Assisted with ecological field surveys and biodiversity monitoring activities.
- Collected field data on wildlife, vegetation, habitats and human activities using standard survey protocols.
- Operated GPS devices and recorded the coordinates of sampling sites, wildlife sightings and areas of conservation concern.
- Supported the establishment of transects, sample plots and observation points.
- Assisted with wildlife identification, counting and recording during field surveys.
- Collected, labelled and safely handled ecological samples where required.
- Entered, cleaned, organized and stored field data for analysis and reporting.
- Assisted with the preparation of field equipment and ensured its proper use, maintenance and storage.
- Supported GIS mapping and the preparation of spatial data collected during fieldwork.
- Recorded signs of threats such as poaching, habitat degradation, invasive species and human–wildlife conflict.
- Collaborated with park staff, researchers, technicians and other field team members.
- Followed Ruaha National Park's safety procedures, research protocols and environmental regulations.
- Assisted in preparing daily field notes, activity summaries and the final field training report.

GIS Research Assistant
Selous Game Reserve (Lion Project) | Morogoro, Tanzania
Dec 2022–Jun 2023

- Conducted GPS-based tracking and mapping of lion movement patterns to understand spatial distribution and habitat usage.
- Analysed prey availability and habitat corridors, providing data that guided conservation strategies for minimizing human-wildlife conflict.
- Assisted researchers in ecological modelling and database management, resulting to ensure long-term monitoring of lion populations.

GIS Analyst
Ministry of Lands, Housing and Human Settlement Development | Arusha, Tanzania
Mar 2021–Sept 2022

- Converted manual land records and maps into digital GIS formats for Sumbawanga, Mpanda, Songwe, Mtwara, Lindi, Mbeya, and Njombe, improving data accessibility for planners.
- Created and maintained a census database integrating socio-economic and land use information, strengthening policy formulation.
- Conducted spatial analysis to identify land ownership disputes, contributing to more effective land management by 40%.

Research Intern
Tanzania Wildlife Research Institute (TAWIRI) | Arusha, Tanzania
Jul–Dec 2020

- Supported national research exhibitions and conferences, presenting GIS-based findings to government leaders and stakeholders.
- Performed satellite image classification and data analysis, leading to support wildlife research and conservation projects.
- Produced species distribution models and GIS-based maps, enhancing research capacity for biodiversity conservation.

Assistant Forest Officer
Tanzania Forest Service (TFS) | Geita, Tanzania
Nov 2017–Dec 2018

- Conducted forest patrols to monitor illegal logging, poaching, and encroachment, contributing to improved forest security.
- Managed forest nurseries and supported seedling propagation programs, resulting in a 20% increase in afforestation.
- Led community extension programs on forest conservation, improving local participation in sustainable forestry practices.

EDUCATION

2025 – Present **Master of Science in Biodiversity and Ecosystem Management, specialization in sustainable utilisation of natural resources**
Nelson Mandela African Institute of Science and Technology (NM-AIST) Arusha, | Tanzania

2022-2025 **Bachelor of Science in Natural Resources Conservation**
Mbeya University of Science and Technology (MUST) | Mbeya, Tanzania

2019-2020 **Ordinary Diploma in Geo-Informatics for Natural Resource Management,**
Forestry Training Institute (FTI) | Arusha, Tanzania

2018-2019 **Technician Certificate in Forestry**
Forestry Training Institute (FTI) | Arusha, Tanzania

2017-2018 **Certificate in Forestry**
Forestry Training Institute (FTI) | Arusha, Tanzania

2013-2016 **Certificate of Secondary Education**
Adili Secondary School | Arusha, Tanzania

TRAINING AND CERTIFICATION

- Microbial Fermentation as a strategy for enhancing food safety, nutrition and sustainable food security| Kenya
- GIS&Remote Sensing for Conservation Planning-TAWIRI | Arusha, Tanzania
- Ecological Monitoring & Habitat Assessment-TANAPA | Arusha, Tanzania
- Mangrove Reservation &Coastal Reforestation Field Research | Tanga, Lindi & Mtwara, Tanzania
- Geo-Conservation Technology in Fire Monitoring-Mbeya University of Science and Technology | Mbeya, Tanzania
- Application of GIS in conservation mapping – Regional Centre of Mapping Resources for Development (RCMRD)| Kenya
- Advanced GIS and remote sensing in forest monitoring and wildlife protection – FTI | Arusha, Tanzania
- Managing human-wildlife conflict in protected area MOOC conservation and IUCN | United Kingdom (UK)

TECHNICAL SKILLS

- Proficient in Microsoft Office Suite (Word, Excel, Access, PowerPoint, Outlook)
- Technical Tools Proficiency (SMART, Impact Toolbox, Earth Ranger, MySQL, Google Earth, USGS Platforms)
- Proficient in GIS&Remote Sensing (ArcGIS, QGIS, ERDAS Imagine, Google Earth Engine)

LANGUAGE SKILLS

- Proficient in English (Fluent) and Swahili (Native) (Oral and Written)

REFERENCES

Dr. Eliezer Mwakalapa (PhD)
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