

Dr. Omar Aweis Ali

PhD Researcher · Environmental Scientist · AI & Climate Modeller

Specialising in machine learning for water quality modelling, climate adaptation, and environmental sustainability, integrating data science, geospatial technologies, and environmental policy.

Dourados, Brazil

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Google Scholar

Portfolio

EDUCATION

PhD in Natural Resources Management March 2025 – Present

Universidade Estadual de Mato Grosso do Sul (UEMS) — Brazil

Research: ML applications for water quality prediction & environmental modelling.

Certificate in Biodiversity, Forests & Seascape Ecosystems Management 2025

RCMRD Regional Centre of Excellence — Kenya

MSc in Integrated Water Resources Management 2024

Somali National University

Funded by UNDP and SIDA.

Diploma in Research 2023 – 2024

Newcastle Research Center — USA

MSc in Environmental Biotechnology 2022

Kalinga Institute of Industrial Technology (KIIT)

BSc in Biology and Chemistry 2019

University of Somalia

PROFESSIONAL EXPERIENCE

Doctoral Researcher March 2025 – Present

UEMS — Brazil

ML-driven water quality prediction and environmental modelling research.

Founder & Chief Executive Officer (CEO) 2025 – Present

Climate and Environmental Research Institute (CERI)

Founded and lead a research institute on climate change, environmental sustainability, and water resource management.

Deputy Research Director August 2023 – Present

Daljir Horizon University (DHU)

Overseeing research programmes, supervising academic projects, promoting scientific publication initiatives.

Head of Research Center June 2020 – Present

Somalia Water Alliance

Leading research on water resources, climate change, and environmental sustainability.

Lecturer September 2022 – 2025

Somali International University & DHU

Environmental Science, Biotechnology, and Research Methodology.

Intern — Integrated Water Resources Management January 2025 – June 2025

Ministry of Energy & Water Resources (MOEWR), Somalia

Hydrometeorological data analysis and water resource management programmes.

PUBLICATIONS & RESEARCH OUTPUT

- > 10 peer-reviewed articles & book chapters in international journals.
- > Topics: ML in environmental science, climate change, water resources, bioenergy, sustainability.
- > 4 manuscripts under peer review in Springer journals:
 - > Bioenergy and sustainable energy systems
 - > Water quality modelling; Environmental assessment; Climate change

RESEARCH METRICS

10+ Publications

4 Under Review

2 MSc Degrees

5+ Years Exp.

DATA SCIENCE & PROGRAMMING

Python R JASP VS Code

GEOSPATIAL TECHNOLOGIES

GIS Remote Sensing Drone Imaging

ANALYTICAL EXPERTISE

Machine Learning

Climate Analysis

Water Quality Modelling

Environmental Data Sci.

SCIENTIFIC SKILLS

Technical Writing

Research Design

Scientific Publication

Data Interpretation

RESEARCH AREAS

- ML in Environmental Science
- Water Quality Modelling
- Climate Change Adaptation
- Water Resources Management
- Environmental Biotechnology
- Bioenergy & Sustainable Energy
- Geospatial & Remote Sensing
- AI-Driven Env. Modelling

LANGUAGES

Somali Native

English Proficient

AFFILIATIONS

- UEMS, Brazil (PhD)
- DHU — Deputy Research Director
- Somalia Water Alliance
- CERI — Founder & CEO
- RCMRD Kenya — Alumni (2025)