

Moses Kolleh Sesay

Sustainability & Climate Analyst

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Sustainability professional with dual master's degrees in Environmental Sciences and Industrial Engineering, combining 3+ years of experience in climate resilience, ESG analysis, and data-driven environmental solutions. Experience in managing water resource projects impacting 10,000+ beneficiaries, conducting climate adaptation research, and delivering actionable insights through advanced data analytics. Knowledge in Sustainable AI, GHG accounting, Life Cycle Assessment, and sustainability frameworks (SBTi, CDP, GHG Protocol, TCFD)

Skills

Technical Skills:

- Data Analysis & Programming: Python (Pandas, NumPy, Matplotlib) | SQL (PostgreSQL, MySQL)
- Visualization & BI Tools: Tableau, Power BI, Advanced Excel (Macros, Pivot Tables, Google Sheets)
- GIS & Spatial Tools: QGIS | ArcGIS | GeoPandas | GeoAI | Felt
- Machine Learning: Logistic Regression, Decision Trees, K-Means Clustering, Predictive Modelling.

Sustainability Expertise:

- ESG Analysis & Integration | GHG Accounting (Scope 1, 2, 3) | Life Cycle Assessment (LCA)
- Climate Risk Assessment | Water Resource Management | Disaster Risk Reduction
- Carbon Markets | Industrial Ecology | Circular Economy Principles
- Sustainability Reporting (IFRS S1&S2, SASB, GRI, CSRD)

Professional Experience

Digital Society School, Amsterdam University of Applied Sciences | Amsterdam, The Netherlands
Researcher – Sustainable Artificial Intelligence (AI)

Sept 2025 to Present

Partner Organization: Ministry of Finance (Ministerie van Financiën)

- Developing a framework and prototype to balance the benefits of generative AI adoption with its environmental costs.
- Creating a decision-support tool and data framework to guide sustainable AI use for both strategic (e.g. managers) and day-to-day users (e.g. employees)
- Focusing project outcomes on achieving UN Sustainable Development Goals 12 (Responsible Consumption and Production) and 13 (Climate Action).

OnePointFive (opf.degree)
Cohort 7 Member - Sustainability Consulting Accelerator

Mar 2025 to Apr 2025

- Completed intensive 8-week program covering end-to-end Net Zero strategy and decarbonization
- Mastered frameworks including SBTi, CDP, GHG Protocol, ISO 14000 series, IFRS S1&S2, TCFD, TNFD
- Conducted practical labs on Materiality Assessments, Scope 1-3 GHG Accounting, and Transition Planning

United Nations Office for Disaster Risk Reduction | Bonn, Germany
Climate Change Adaptation Intern

Jun 2023 to Oct 2023

- Reviewed disaster loss data for Caribbean countries, ensuring accuracy by cross-referencing with external datasets.
- Analysed global hazard databases, contributing to the development of robust information systems for disaster risk reduction.
- Supported frameworks like the Sendai Framework Monitoring and Disaster Losses and Damages Tracking System.
- Identified and documented 54 global hazard information systems, expanding organizational databases and regional hazard-type coverage.
- Assessed key terminologies used in disaster economic loss(es) and damage(s) assessment frameworks, contributing to standardised global disaster reporting.
- Developed comprehensive risk management factsheet for Trinidad and Tobago, directly informing national policy

Team & Team International | Freetown, Sierra Leone
Field Operations Manager

May 2019 to Sept 2019

- Led the completion of 14 solar-powered boreholes across Sierra Leone, enhancing water accessibility for thousands of residents.
- Achieved a 70% success rate in aquifer detection through meticulous geophysical surveying.
- Developed a streamlined borehole design process using Excel and QGIS, improving project execution efficiency by 15%.

- Trained local staff on sustainable water system maintenance and effective data collection methods, ensuring longevity of water supply solutions.
- Collaborated with donors, government agencies, and cross-functional teams to optimize water resource management strategies and refine project timelines.

[Sierra Drilling and Water Supply Enterprise | Freetown, Sierra Leone](#)
Operations Supervisor

Sept 2018 to Apr 2019

- Managed a team of 23 overseeing borehole drilling operations, achieving a 95% project completion rate.
- Constructed 50 boreholes and rehabilitated 100 hand-dug wells, significantly improving local water supply infrastructure.
- Fostered community engagement and stakeholder relations, enhancing project acceptance and collaboration.
- Utilized Excel and QGIS for project management and data analysis, optimizing operational processes.

Education & Credentials

[Wageningen University & Research, Wageningen](#)
Master of Science in Environmental Sciences

Sept 2021 to Aug 2024

- Specialisation: Human-Environment Interaction (Water Systems and Global Change)
- Thesis: A study of socioeconomic drivers of river export of multiple pollutants in sub-basins worldwide and developing qualitative future storylines for African coastal water pollution
- Relevant courses: Modelling future water stress, Climate Change Adaptation in Water Management, Environmental Quality and Governance, Water Governance, Integrated Water Management, Natural Hazards and Disasters
- Academic Consultancy Training: Research project for the municipality of Wuppertal titled: "Preventing the Schwebebahn from Becoming a Boat : Towards a Flood-Resilient Wuppertal".

[Hunan University, Changsha-Hunan](#)
Master of Science in Industrial Engineering

Sept 2019 to Jun 2021

- Thesis: Approach to soft path water management- thinking beyond cement, steel and pipes, Freetown as case study
- Relevant Courses: Project Management, Operations Research, Management Information Systems

[University of Sierra Leone, Freetown, Sierra Leone](#)
Bachelor of Science in Honours Geology

Jan 2013 to Apr 2017

- First class Honours-Graduated top of Class
- Dissertation: Mapping groundwater potential in the Freetown complex: A geophysical approach

Training & Certifications

[Corporate Finance Institute, Remote](#)
Environment Social and Governance (ESG) Specialist Program

Sep 2024

- Gained expertise in Environmental, Social, and Governance concepts, focusing on risks, opportunities, and ESG analysis.
- Acquired practical skills in ESG investing, financial strategy, and corporate development, earning a highly sought-after ESG certification upon completion

[Google-Coursera, Remote](#)
Google Advanced Data Analytics Professional Certificate

Jan 2024

- Created data visualizations and applied statistical methods to analyze and interpret datasets.
- Developed machine learning and regression models to extract insights from data.
- Communicated data-driven insights to stakeholders using effective visualization tools

[Masterschool, Remote](#)
Data Analytics Training Program

Dec 2023

- Completed a comprehensive tech training program developed by industry leaders to address real-world business challenges.
- Applied a variety of analytical techniques to solve multiple business cases.
- Developed proficiency in SQL (including window functions, multi-table joins, views, and CTEs), Python (covering functions, pivots, and group-by operations), Excel, and Tableau.