Curriculum Vitae: Edith Mshoperi

Nationality	Zimbabwean
Education	PhD candidate Chemical Engineering (in progress) University of Cape Town MSc. Biotechnology (2015) Rhodes University BSc. – Biochemistry and Microbiology (2012) Rhodes University
Languages	English (fluent), Shona (fluent)
Membership of professional bodies	SACNASP – South African Council for Natural Scientific Professionals (Reg. number 124417)

Employment record

Jan 2023 – present	Technical Analyst and Project Manager OneWorld Sustainable Investments, Cape Town
2020 – 2022	Project manager and ESG consultant Relativ Impact, Cape Town
2019 – 2020	Research consultant Relativ impact, Cape Town
2019	Mentor Eskom Expo for Young Scientists, Cape Town
2018 – 2020	Teaching Assistant University of Cape Town, Cape Town
2015 – 2018	Educator (Computer Applications Technology) Grade 10 to 12 Rosebank Progress College, Cape Town
2014 – 2015	Graduate teaching assistant Microbiology Rhodes University, Makhanda
2013 – 2014	Freelance science communicator (Writer) Nanotechnology Public Engagement Programme (NPEP) Nano Newsletter, Makhanda
2014	Maths and Science tutor Grahamstown Educenter, Makhanda
August 2012, 2013, and 2014	Scifriend; Venue Manager and Information desk coordinator Scifest Science Festival. Grahamstown Foundation, Makhanda

Relevant professional experience

November 2024 – present	Climate Landscape Analysis for Children (CLAC) in Botswana United Nations Children's Fund (UNICEF)

	Project management, technical analyst, and backstopping The objective of the CLAC is to assess reflect and update the situation of climate, energy, environment and disaster risk-related issues affecting children in Botswana, since the publication of the 2020 CLAC. As well as developing a dedicated strategic framework on climate action for children for UNICEF in Botswana to cover the remainder of the country programme (2024 – 2026). Specific tasks include: the assessment and update of Botswana's CLAC and evaluating the evolving impacts of climate change, energy, environment, and disaster risks on children since the 2020 report. This includes conducting in-depth literature reviews, facilitating stakeholder engagement through participatory analysis, and driving the development of a strategic climate action framework for UNICEF Botswana; as well as project coordination and backstopping, deliverable management, report development and review.
July 2023 – present	Conducting sectoral climate change vulnerability assessments for Tanzania Mainland and Zanzibar United Nations Development Programme (UNDP) ***Project management, technical analyst, and backstopping*** The objective of the project is to develop capacity-building tools to enable stakeholders to review and conduct climate risk vulnerability assessments within nine selected sectors and draw out recommendations on priority solutions that address the challenges. Specific tasks include: project coordination and backstopping, tool development, report development and review.
October 2022 – present	Provision of technical assistance for aquifer mapping technologies for Zambia Climate Technology Centre and Network (CTCN) in collaboration with the United Nations Environment Programme (UNEP) ***Project management and backstopping*** The objective of this project is to provide technical assistance for the development of a robust groundwater management plan to support climate change adaptation and groundwater management strategies in Zambia. Specific tasks include: project coordination and backstopping, report review, and deliverables management.
May 2023 – present	Allocation of Sectoral Emissions Targets (SETs), Improvement of the Integrated Socio-economic Model, and Update of the Pathways Scenarios of the Integrated Mitigation Model Department of Forestry, Fishing and Environment (DFFE) and German Agency for International Cooperation (GIZ) ***Project management and backstopping*** This study seeks to develop effective sectoral emission targets (SETs) for all governmental departments (inclusive of all seven environmental and non-environmental sectors). The objective of the project is to update and improve the integrated socio-economic model, update the developmental pathway scenarios of the integrated model, and allocate the SETs. Specific tasks include: deliverable management, project coordination, and supporting stakeholder engagements for the development and validation of developmental pathways and scenarios.
March 2023 – present	Analysing the Climate Adaptation Needs and State of Readiness in Three Primary Sectors National Economic & Development Labour Council (NEDLAC)/Presidential Climate Commission (PCC) ***Project management, technical analyst, and backstopping*** This study seeks to analyse and present the adaptation needs and state of readiness in three sectors (built environment, agriculture, and water) for the adoption and implementation of climate adaptation solutions. The objective of the study includes an analysis of three primary

	sectors' institutional arrangements and governance structures, as well as emerging activities and trends to develop priority recommendations to accelerate climate adaptation interventions for each sector. Specific tasks included: project coordination, deliverable management, and supporting and coordinating stakeholder engagements, toward the development and validation of adaptation readiness sector analysis reports.
January 2023 – present	Development of a Groundwater Strategy for the Limpopo River Basin SADC Groundwater Management Institute (GMI) ***Stakeholder engagement (Zimbabwe) coordinator*** The purpose of this project was to gather recommendations from the affected parties to inform the formulation of a transboundary groundwater management strategy for the Limpopo River Basin. Specific tasks included: stakeholder scoping and mapping of groundwater custodians and impacted communities to conduct face-to-face stakeholder engagements and participatory analyses of groundwater-related issues. This included identifying and drawing out the views, recommendations, and concerns related to the management and security of groundwater.
February – October 2023	Green Hydrogen Finance Landscape in South Africa German Agency for International Cooperation (GIZ) ***Project manager and technical analyst*** OneWorld was contracted by GIZ to explore the feasibility and factors driving the growth of the South African green hydrogen market. The project provided an overview of international and South African green hydrogen funding and off-take mechanisms. The key objective of the project was to provide capacity-building tools and information on financing mechanisms to reduce entry barriers entry for project developers and facilitate their path to bankability. Specific tasks included: project management; mapping and analysis of the finance landscape related to the development of a green hydrogen market in South Africa; providing support for desktop research; development of a stakeholder database that captures funding mechanisms and technical support available for green hydrogen project developers in South Africa; and validation of key findings through targeted stakeholder consultation.
January – May 2023	Support for Facilitation and Events Management for Energy Dialogues for the Presidential Climate Commission Presidential Climate Commission (PCC) ***Project manager*** The purpose of the dialogue events was to engage all partners regarding the draft recommendations made by the PCC in their Electricity Planning and the Just Energy Transition Investment Plan (JET-IP). The energy dialogue events were delivered in 2 formats: an information-sharing session and a formal consultation event for each of the four social partners in South Africa, namely Business, Civil Society (including youth and faith-based groups as separate engagements), Government and Labour. Specific tasks included: Scoping, stakeholder mapping, analysis, and coordination of the delivery of energy dialogues on behalf of the PCC.
March 2021 – December 2022	Impact measurement and management and reporting assistance Relativ Impact ***Team member (project coordinator and account manager)*** Supported the development of impact measurement frameworks and tools to aid clients in establishing output and outcome-based indicators and targets for programs; Coordinating data gathering and collation including assessing progress made against project indicators for operational and strategic quarterly and annual reporting to C suite (EXCO and Board) and

external stakeholders. This included supporting the development of Impact, ESG (Environment, Social and Governance), and Sustainability reports.

Noteworthy disclosures and contributions include:

- Old Mutual Sustainability and Climate Report 2021 (published 2022)
- Old Mutual Responsible Business Impact Report 2020 (published 2021)
- Old Mutual 2020 UNGC Communication of Practice (published 2021)
- The Clothing Bank Impact Report (2020) (published 2021)
- Gold Youth Development Agency Impact Report (2020) (published 2021)
- Family Health International (FHI360) Adolescent girls and young women (AGYW) employment empowerment market scan (2020)
- Oxfam South Africa Donor analysis (2019)

March 2020 – Dec 2022

Desktop research for development of white papers, research papers, market scans, (e.g. TCFD reports, UN Global Compact disclosures), etc.

Relativ Impact

Team member (data analyst, researcher, project coordinator)

Research and project coordination support for a variety of projects including education frameworks, financial educational and inclusion strategy development, donor mapping (fundraising/resource mobilisation), public disclosure gap analyses (e.g., Task Force for Financial Disclosures – TCFD reports, United Nations Global Compact - UNGC disclosures; Sustainable Development Goals (SDG) indicator mapping and alignment, and SDG Impact standard development review.

Tasks included the collection, review, and critical synthesis of internal and publicly available data to generate efficient and usable white papers, research papers, market scans, landscape analysis, donor scoping, literature reviews, strategy documents and positioning statement pieces tailored according to the brief.

Design and conduct desktop research and quantitative data analysis to identify and map outcome pathways for developmental (NGO, NPO and CBO) organisations; including desk research to inform and support assumptions and risks that impact the likelihood of the theory of change outcomes and impact to occur. Provided implementation support and facilitated theory of change development consultations with clients to build their team competency and capacity to review and maintain their theory of change.

Feb 2016 – Dec 2019

Quantitative research

University of Cape Town

Researcher

The project entailed a lab-based analysis of the feasibility and performance improvement of anaerobic digestion of sugarcane molasses vinasse using desalination pre-treatment methods. The primary goal of the research was the achievement of effective bioremediation of vinasse with the inclusion of a value-addition step. This has the potential to improve the sustainability of vinasse remediation, reduce the limitations of ethanol production, enhance resource productivity, and improve the process economics.

Publications and Conference Papers (selected)

Peer-reviewed Research-based Reports

Mshoperi, E. Fogel, R. Limson, J. (2014). Analysis of the synergistic effect of carbon black and iron phthalocyanine cathode modification in Microbial Fuel Cells. Electrochimica Acta. 128:311-317

Limson, J. Mtambanengwe, K. Mshoperi, E. Fogel, R. Laubscher, R. (2013). The Beneficiation of Algal Biomass from a Low-cost sewage treatment system as a feedstock in Microbial Fuel Cells. 224th ECS meeting. Conference paper.

Presentations

Mshoperi, E. (2020). Bioremediation of South African molasses vinasse with associated value recovery through anaerobic digestion. Presentation for "Biosafety Symposium 2020". Cape Town South Africa 2 – 3 March 2020

Mshoperi, E. (2018). Bioremediation of vinasse with associated value recovery through its pre-treatment and anaerobic digestion. Centre for Bioprocess Engineering Research (CeBER), Department of Chemical Engineering, University of Cape Town, South Africa 29 November 2018.

Mshoperi, E. (2013). Analysis of the synergistic effect of carbon black and iron phthalocyanine cathode modification in microbial fuel cells. 13th Topical Meeting of the International Society of Electrochemistry Advances in Electrochemical Materials Science and Manufacturing. Conference paper.