

NQOBILE XABA
BSc, BSc Hons, MSc, PhD
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PERSONAL PROFILE

Experienced researcher focusing on energy policy development and, mineral resource development and governance; Spent a decade conducting research, lecturing, and policy analysis and reviews. A thought leader and advocate for the development and industrialisation in the African continent, driven by mineral beneficiation. Self-driven and self-reliant; seeks good outcomes for challenges; identifies and develops opportunities; has excellent communication skills.

EXPERIENCE

1. Programs Manager at Open Society Foundations (May 2025-Present)

Focus Areas

- Critical Minerals and Africa's futures: Equitable and accountable governance and development of green minerals in Africa for a just energy transition.

Responsibilities (In addition to researcher responsibilities outlined below)

Programme and sector knowledge development

- Building strong partnerships and understanding of minerals development and governance, in
- Developing and designing the grant selection processes.
- Liaising with grantees to ensure the opportunity is designed, launched, implemented, and exited according to the outcomes defined.
- Work collaboratively with team members and with team across OSF to ensure outcomes are delivered.
- Manage relationships with partners, in close coordination with other OSF teams globally.
- Work collaboratively in developing, assessing, and revising program.
- Support the Director of Programs to deliver on the opportunity's outcomes.

2. Senior Researcher at the MISTRA (Oct 2021-Mar 2022; Sept 2024-Mar 2025)

Focus Areas

- The just energy transition, mineral resource beneficiation and governance, and the global hydrogen economy.

Responsibilities (In addition to researcher responsibilities outlined below)

Programme and sector knowledge development

- Manage a portfolio of research projects and develop new programmes in line with research priorities.
- Support increased organisational efficiency and effectiveness.
- Develop proposals for project funding.

Team leadership

- Oversee and manage the research group's performance.
- Ensure project deliverables are met across active projects.

3. Researcher at the Mapungubwe Institute for Strategic Reflection (MISTRA) (January 2021-Present)

Focus Areas

- The just energy transition, mineral resource beneficiation and governance, the global hydrogen economy

Responsibilities

Programme and Sector Knowledge development

- Conduct and coordinate research and consultancy projects in the broader areas of the just energy transition, mineral resource beneficiation, and hydrogen economy.
- Manage research project/s, which includes project planning, budgeting, implementation and evaluation.
- Conceptualisation and writing to produce intellectual products (reports, papers, conference proceedings, chapters)

- Conduct policy reviews and analysis.
- Organise and lead core group meetings, workshops, conferences, and other events as per the project plan.

Stakeholder management and partnerships

- Represent MISTRA in various discussion platforms, funder, and other stakeholder collaborations.
- Maintain and build partnerships with various government, civil society and academia stakeholders.
- Act as a knowledge resource and lead priority research areas and programmes.

Strategy and leadership

- Advise and develop strategic positions in the key focus areas and programmes.

4. Lecturer and Researcher at Tshwane University of Technology (July 2019-December 2020)

Focus Area

- Analytical chemistry; Energy conversion and storage technologies (Hydrogen Fuel cells)

Responsibilities

- Teaching general chemistry and analytical chemistry.
- Develop multimodal teaching methods for e-learning and contact learning.
- Lead analytical chemistry and first-year chemistry practical sessions.
- Set final examination and ensure timeous capture of final marks.
- Research and Development: Conduct relevant research on developing catalysts for hydrogen fuel cell technologies.

5. Researcher at the Council for Scientific and Industrial Research (CSIR) (June 2014-April 2019)

Focus Areas

- Energy materials for battery energy storage systems (BESS) and hydrogen fuel cells.

Responsibilities

- Conduct research and develop methods for fabricating materials for energy storage applications.
- Method development, characterisation, and performance testing of materials.
- Proposal writing, paper write-up, conference attendance, and representing the CSIR on various platforms.
- Project planning and ensuring deliverables, and mentor and supervise interns.

APPOINTMENTS

1. Senior Research Fellow at Foundation for Renewable Energy and the Environment (FREE)(2023-present)

- Working with FREE to conduct interdisciplinary research on Africa's energy needs in the context of an evolving climate landscape.
- Research outputs include seminars/lecture on South Africa's just energy transition and paper publication.

2. Senior Research Fellow at the Department of Geography & Environmental Management & Energy Studies, University of Johannesburg (2024-2027)

- Working with the department to collaborate on research and advising on areas of specialisation.
- Participating in conducting seminars and guest lectures.

3. Advisory board member at Enzi Ijaye Africa Initiative (2023-2025)

- Providing strategic advice and direction to the organisation in pursuance of its mandate of advancing policy that is informed by the continent's realities.
- Contribute to the organisation's overall strategy, particularly focusing on critical minerals and clean energy technologies and their role of Africa's transition to a low carbon economy.

4. Member of the ASSAf Forum on the Just Transition at the Academy of Science South Africa (2025-2028)

- Contribute scientific information and contribute towards reflective, inclusive and rigorous science informs dialogue and shape narratives on the just transition in South Africa.
- Contribute to a national process for a just transition to a low carbon and climate resilient economy through creating a platform for academic expertise to be accessible to non-academic stakeholders.

5. G20 South Africa Chief of Science adviser for Climate Change and the Just Energy Transition (2025)

- Provide expert input on the role of science technology and innovation to advance the JET and sustainable development.
- Provide input and review the outcome statement.

6. Steering committee member for the Development of South Africa's sectoral emissions target project (2023)

- The project under the Department of Forestry, the Environment and Fisheries (DFFE) aimed to develop realistic development pathways to 2050 that will assist in shifting the country to meet net-zero emissions (long-term ambition).

ACHIEVEMENTS

- Appointed as a climate change expert in the South African delegation at the 17th BRICS academic forum 2025, held in Brazil (25-26 June 2025).
- South African delegate at the BRICS Think Tank International Symposium, themed "Green BRICS, Golden Future", discussant on 'Pathways for Green Development' (Beijing, 25–26 May 2025)
- Speaker at the EU-AU SME summit, providing reflections on 'Energy for all and for a common and sustainable future' (June 2025)
- Speaker at the South African Public Relationship with Science conference, a discussant on 'the interest in and knowledge of science and technology and the environment' (March 2025).
- Speaker at the ISEE Symposium, at the Commonwealth University (United States), discussant on the topic 'Whose energy Transition: A South African perspective' (October 2024).
- Guest Lecture at the Graduate School of Energy and Environment Korea University, lecturer titled 'The Implementation of a Just Energy Transition in Coal Areas' (October 2024)
- Guest Lecture at the Graduate School of Energy and Environment Korea University, lecturer titled 'South Africa's Energy Transition Challenges and Opportunities' (October 2023).
- Attended training on Conflict Resolution, Mediation and Negotiation offered by DIRCO (2024)
- Attended the Agora Energiewende Hydrogen and Power-to-X Training in Berlin (2023)
- Attended the 71st Lindau Noble Laureate Meeting (chemistry) in Germany (2022)
- Visiting Exchange Scholar at the University of Georgia (USA) (June-July 2015)
- Attended the GlaxoSmithKline Residential Chemistry Training in the United Kingdom (2010)

EDUCATION

1. Doctor of Philosophy (PhD) in Chemistry (2018, University of the Western Cape)

Description: Degree awarded based on the examination of a research thesis titled Fabrication of SnBi nanomaterials using electrochemical atomic layer deposition for energy applications.

2. Master of Science in Chemical Engineering Science (MSc) (2014, North-West University)

Description: Degree awarded based on the examination of a research thesis titled Production of bioethanol from amaranth lignocellulose.

3. Bachelor of Science Honors degree in Chemistry (BSc hon) (2013, University of KwaZulu-Natal)

Description: This degree was awarded based on the completion of course work.

4. Bachelor of Science in Pure and Applied Chemistry (BSc, Cum Laude) (2011, University of KwaZulu-Natal)

Description: Degree awarded based the completion of course work.

REFERENCES

Available upon request