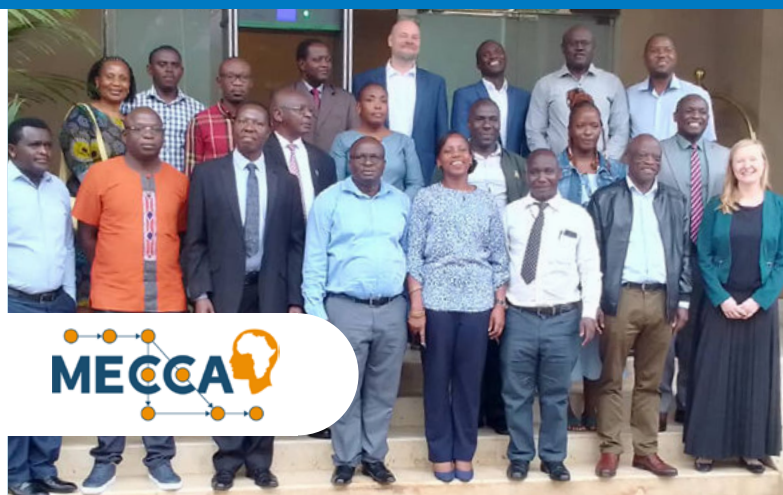


Targeting Mental Models of Climate Change Risk to facilitate Climate Action (MECCA)

How do different stakeholders perceive the causes and consequences of climate change and what risks do they identify? And how these perceptions align with natural science-based knowledge? MECCA investigated these questions in Lagos and at Lake Victoria. The starting point was specially developed bio-physical models of how the climate is currently influenced by natural and anthropogenic (human-made) factors. Adaptation and mitigation strategies have been identified by analysing the correspondence between stakeholders' perceptions of climate change and the risks and impacts projected by the simulated future scenarios.

Key Findings

- For both regions the models project temperature rise and increased flood risks. For Lake Victoria the models also predict rainfall increase.
- The analysis of community members' perceptions of causes and consequences of climate change shows these are focused on deforestation, greenhouse gas emissions, droughts, temperature change and flooding.
- The perceptions of experts are generally in line with projections as well as with historical data, although experts at Lake Victoria may underestimate the consequences of climate change that society is already facing.
- Climate change is perceived as a moderate to very serious threat to people by community members in Lagos and Lake Victoria. People feel: worry, fear and sadness. But the majority is somewhat/fairly confident that climate change can be addressed in the region.
- In Lagos participants indicated flooding, industrialisation and improper waste disposal should be addressed by waste management, awareness of climate change



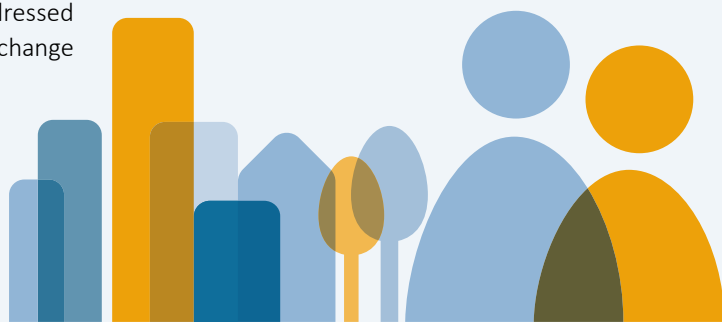
Source: Regional MECCA dissemination workshop held in Entebbe, Uganda on the 3rd of April 2023 (MECCA archive)

and environmental regulations. According to the participants, these strategies should be implemented by the government, communities and individuals.

- In Lake Victoria, participants indicated deforestation, land degradation and agricultural practices should be addressed by afforestation, education and environmental regulations. According to the participants, these strategies should be implemented by the government, individuals and communities at Lake Victoria.

Stakeholder engagement across two African regions provide valuable insights

Stakeholder workshops were conducted in Lagos (May, 2023) and in the Lake Victoria region (Entebbe, Uganda, April, 2023). Participants in Lagos included researchers, policymakers, practitioners, and experts, and in Lake Victoria researchers, policymakers, NGO members and community representatives. Policy briefs were developed and served as input. During the workshops findings were presented and stakeholder reflected on the relevance and usefulness of the findings and discussed how these can be used by them. Stakeholders showed great interest in discussing the usefulness of our findings for their region and provided invaluable feedback.



Expanding Climate Research Horizons: Bridging Gaps in Understanding, Strategies, and Health Impacts

Most research on climate change, climate change perception and behaviour focuses on the Western world. Studies on vulnerable regions such as West Africa (Lagos) and East Africa (Lake Victoria) are scarce. MECCA contributes unique insights, but more studies are needed.

One important step will be to also study the implementation of adaptation and mitigation strategies. To gain insight into how these strategies can be further co-developed and how can these be introduced in an effective way. Related to this is the need to also study climate communication strategies as it is important that these are also culturally sensitive and context-specific.

During the research the importance of health impacts became clear. Studies could specifically focus on these.

About AXIS

The ERA-NET Consortium AXIS (Assessment of Cross(X) - sectoral climate Impacts and pathways for Sustainable transformation) aims to promote cross-boundary, cross-community research with the overall goal to improve coherence, integration and robustness of climate impact research and connect it to societal needs. To this effect, AXIS aims to overcome boundaries between science communities through inter- or transdisciplinary research projects. <https://jpi-climate.eu/programme/axis>

Partners

- [University of Bergen](#)
- [Potsdam Institute of Climate Impact Research](#)
- [Utrecht University](#)

Project Duration

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<https://mecca.sites.uu.nl/>

