

Reflection - Round table on climate change and system transitions

In the context of research collaboration between Mozambique and The Netherlands

1.1 Introduction

On 8 May, KIN (Dutch Climate Research Initiative) invited Dutch and Mozambican researchers and practise experts to join the online *round table on climate change and system transitions*. Over 20 experts from knowledge institutions, NGO's and policy joined us to explore the most urgent problems and obstacles in climate change research that hinders the acceleration of systemic change. The main aim of the meeting was to explore opportunities to strengthen the research and knowledge system on climate change in Mozambique and the Netherlands.

Organisations represented: Mondlane University, UNDP, Save the Children Mozambique, the Embassy of the Kingdom of the Netherlands in Mozambique, Both Ends, TNO, KNMI, TU Delft, IHE Delft, WUR, Leiden University and others.

1.2 Why this round table

KIN works on the acceleration of system transitions needed to tackle climate change. We do this by sharing, developing, widening and deepening knowledge. KIN Global Transitions focusses on regions that have had little contribution to climate change, but that are most vulnerable to its risks. Mozambique is considered one of the countries most likely to suffer severely from natural disasters caused by climate change. In addition, the energy transition is economically challenging and resources necessary to finance systemic actions to address the impacts of climate change are limited. KIN is therefore exploring whether and how KIN initiatives can be of added value to strengthen the research and knowledge chain in Mozambique.

1.3 Outcomes

Inspired by 'liberating structures' we asked participants of the round table to work through the following questions: (1) What are urgent problems in which new research or new collaborations are needed? (2) What are current obstacles for research to contribute/lead to systemic change needed to tackle climate change? In online subgroups participants were asked to use digital concept boards to mark and discuss their answers. The results are summarized in the annex. The following conclusions should be highlighted:

1. Urban climate resilience, extreme weather events, climate justice and resilience of vulnerable groups were prioritized as the most urgent problems that should be addressed in the face of climate change. Moreover, it is the connections between these problems that should be addressed to enable systemic change. It is crucial to have people in the centre of transitions, bringing local communities on board and getting those who are most vulnerable to climate disasters (represented) at the decision making tables.

2. There are many obstacles for research/knowledge to contribute to systemic change. Because there is a lack of research funding and universities in Mozambique are mainly teaching institutions, it is important to work in a collaborative way and develop research capabilities. Research often lacks societal relevance as there is no demand driven approach, communities and decision makers are not involved at the start. These obstacles occur or have an effect in all stages of research, from initiation to implementation. However, many obstacles mentioned are to be tackled in the initiation phase of the research cycle.

1.4 Conclusion

The discussion at the round table calls for more research/knowledge collaboration between Mozambique and The Netherlands. For both Delta countries there are mutual benefits for strengthened cooperation in fields such as food and nutrition security, integrated water management and urban climate resilience. To accelerate system transitions, we need disruptive, innovative solutions that should look at interconnections, changes and adaptive response measures. We thank all participants of the round table for their time.

1.5 Next steps

KIN will share the outcomes and lessons learned of the round table with the Global Transitions Programme Committee (GTPC). The GTPC will draft an advice to the KIN steering committee on how to proceed. If we proceed to start in Mozambique with our first KIN Global Transitions pilot initiative, consultations, workshops and cocreation sessions will follow. These will be held live in Mozambique as much as possible in order to ensure a diverse variety of stakeholders can be involved, including the voices of underrepresented groups or people in a vulnerable situation. Once the next steps are defined, this will be communicated externally through several channels.

1.6 About Global Transitions

KIN [Global Transitions](#) aims to contribute to transitions necessary for a just and climate neutral society with increased adaptive capacity among vulnerable groups. This is being achieved by identifying and accelerating system transitions suitable for the local context. Collaborations between different types of actors that are part of the system addressed, including marginalized groups and women, are established, strengthened and expanded through equal partnerships, capacity building and knowledge sharing. Specifically (Dutch) trade and its negative consequences for local climate resilience and livelihoods are identified and addressed through action perspectives. Programmes directly lead to knowledge on system transitions, new partnerships and new ways of working.

Annex

1. SYNTHESIS: What are urgent themes in which new research or new collaborations are needed?

1.1 The most urgent problem that should be addressed in the face of climate change in Mozambique is ...

1. **Urban climate resilience** (especially in slum areas) including climate migration.
2. **Extreme climate events** (cyclones, sea level rise, floods and droughts) and ineffective Multi-hazard Early Warning Systems including Health.
3. **Climate justice** (Inequalities that lead to unequal impacts of climate crisis and Who is deciding and defining what are the most urgent problems, vulnerable groups are not sufficiently part of these discussions)
4. **Resilience of vulnerable groups** (Resilience of rural livelihoods and climate smart food production, combining poverty elimination and climate change mitigation)
5. **Public and political awareness and will**
6. **Sustainable resource management**
7. **Intersectionality** of problems (lack of policies, urbanization, poverty, territorial planning).

1.2 The system transition that is needed to address this urgent problem can be defined as ...

Although the groups did not define the system transitions themselves. They did define important conditions to accelerate these transitions.

1. Coordination between different stakeholders. Transforming scientific evidence into concrete combined action of several institutions.
2. A formal mechanism to filter the development agenda to climate change related research ideas.
3. Transitions should have people in the centre. Bring local communities on board, look at power imbalances, those who are most vulnerable to climate disasters need to decide.
4. Take advantage of the historical and local (indigenous) knowledge of populations about adaptation
5. Disruptive, innovative solutions looking at interconnections, changes and adaptive response measures.

1.3 Which of these system transitions have an influence on and show interdependencies between the Netherlands and Mozambique?

1. There are some similarities, but not necessarily interdependencies between the urban transition in the Netherlands and Mozambique.
2. Climate Mitigation & Adaptation
3. Integrated Water and Resource Management
4. Food and Nutrition Security

5. Netherlands has economic/trade interests in Mozambique that do not always/often do not correspond with the interest of the people of Mozambique.
6. Need for interdisciplinary work. E.g.: spatial planning, hydraulic engineering, ecology. Including working with communities.

1.4 What kind of new knowledge or collaborations could strengthen these system transitions?

1. Knowledge sharing, Capacity building, Private sector engagement, All with a gender inclusive approach.
2. Knowledge on how to synchronize multiple transitions at the same time.
3. Grassroots civil society groups working with academic institutions to define knowledge gaps and push for (political) action.
4. Alliances between academic institutions and (officials in) governmental institutions / political institutions.
5. Thematic:
 1. Research involving urban planners, social scientists, engineers, meteorologists/climatologists. Knowledge of how urban transitions unfold in stages.
 2. Close the water cycle implementing reuse of wastewater in industry and agriculture.
 3. Science based resilience solutions such as early warning systems and community engagement strategies.

2. SYNTHESIS: What are current obstacles for research/knowledge to contribute/lead to systemic change needed to tackle climate change?

2.1 SUB-QUESTIONS

- a. What are obstacles currently experienced?
- b. What is needed to overcome these obstacles?

2.2 Initiation

1. Lack of research funds. Solutions: Strengthen capacity for developing bankable research projects, Work in a collaborative way.
2. Lack of a favourable academic environment for research: access to data / information, people and freedom of speech and pressure on independent voices (CSOs, journalists), corporate interests. Many institutions are not prepared to collect or organise data for climate-related studies (not a priority).
3. Lack of research with societal relevance and demand driven research. Solution: start with the question: how do you develop the research scope in an inclusive setting (north- south; academia-society).
4. Lack of mechanisms for collaboration from institutions. Lack of continuity of projects. As a result: Difficult to solidify and create real impact.
5. Lack of researchers, skills and universities are teaching institutions. Solution: Developing research capabilities. Include climate and environmental issues in curriculums (technical skills, hydrological understanding, engineering, spatial planning, civil engineering, agriculture (adaptation), climate). However, educational institutions still have limited teaching capacity.
6. Lack of an institutional approach regarding research project challenging sustainability (Institutional vs consultancy approach). Patience is needed for definition of good research, but funding procedures are never patient enough.

2.3 Execution

1. Insufficient data / information and research infrastructure. limited access to country information on climate change. Solution: Focus on co-production of knowledge, integrating local knowledge.
2. Lack of partnership between stakeholders. Technical Capacity and research funding is limited. Solution: Use of a Consortium approach and the engagement of academia.
3. Lack of continuity. Solution: Longer-term programmes. Linkage to governmental programmes and operational procedures

2.4 Implementation

1. Poor engagement of decision makers in prioritization of climate topics due to bureaucracy and poor coordination. Solution: conduct policy integration workshops; Establish Committees with clear roles and responsibilities to streamline cCC into decision making.
2. Use of traditional knowledge of climate, but this is more difficult to use under conditions of climate change; shifting of rain season, temperature. Combining local knowledge with science and technology.

3. Disconnected research with needs and implementation plans - top down approach. Community acceptance of recommendations underpinned by research - also depends on level of involvement of community in research.
4. Research is sometimes done in silos or done by external consultants. Solution: incentives for collaborative work between research and implementation institutions.
5. The engagement of Private Sector on turning outcomes of research on business opportunities
6. Lack of legal and institution support / lack of political will. Upscaling of new ideas is not easy; government does not seem to be very interested in new ideas/approaches, and seems to prefer to continue doing more of the same. The use /application of the research findings, most of the time it is not public, lack of dissemination. Solution: better definition and conditions from the beginning.