

Knowledge in support of climate change adaptation

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This map is part of a series of maps on the evidence-informed decision-making (EIDM) landscapes in different countries in Africa. The series comprises 25 maps and is available from the Africa Evidence Network. This is map 9 in the series. Maps were produced as part of the bursary conditions for attendance at Evidence 2016 (<http://evidenceconference.org.za/>). Bursaries were provided as part of the UJ-BCURE programme, funded by the UK's Department for International Development (DFID).

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Strengthening Evidence-Informed Decision-Making in Africa

www.africaevidencenetwork.org

Country: Tanzania

Case: Co-production evidence approach in support of climate change adaptation and mitigation

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Current gaps

1. Understanding all sides of climate change has proven challenging despite the quantities of scientific information that are being regularly generated nationally and internationally. The available evidence often seems alienated from social issues and unable to solve potential climate change from the social context. This suggests that the problem is not lack of data, but rather the inability to make sense of and use the data that is available.
2. Usually evidence stops at report submission and is rarely shared or communicated. There have been numerous climate change research projects in Tanzania since the Government ratified international conventions on climate change and global warming. Some of the studies informed policy and contributed to strategy formulation for adaptation or mitigation of climate change impacts. Data was collected in various communities, however many communities that participated in those studies wonder whether those studies were completed.
3. The research design and process has led to results that describe climate change as being a single problem. However the impact of a changing climate has caused multiple realities in the communities that cannot be dealt with as a single problem.
4. Usually most assessments or research projects on climate change adaptation are expert-focused processes from the design stage to the production of evidence.
5. Although researchers may currently be the primary producers of evidence does not mean that they are or should be gatekeepers of it. In fact they have no control whatsoever once the research is completed and the findings are reported. The end-users – policy-makers, technical officers and communities – are the owners of the evidence and they are in the position to embrace or reject it. It is therefore necessary to develop methodologies to ensure that the end-users have the capacity and willingness to take ownership of the evidence from the design to the utilization of the research.

The point of entry – Case of NAFORMA

The Government of Tanzania in collaboration with the Government Finland through the Food and Agriculture Organization (FAO) launched the National Forestry Resources Monitoring and Assessment (NAFORMA), which took place between 2009 and 2014 under the Forest and Beekeeping Division (FBD). The initiative comprised many targets aiming at provide evidence to support policy processes and interventions to reduction emissions from deforestation, forest degradation and greenhouse gas (GHG). NAFORMA also was targeted to provide evidence to local communities to improve the quality of lives and reduce the vulnerability of residents, as they protect their environment.

From the beginning of the process to set up NAFORMA, the project manager worked with a few individuals at the Ministry of Natural Resources and Tourism to identify the essential value-chain actors that would be needed to achieve the best possible results related to climate change adaptation and mitigation. A multi-stakeholders team was assembled, that included a key high level executive officer in the Vice President's Office – the institution in charge of national climate change-related initiatives. Other government technical officers were selected from climate change sectors such as forest, water, meteorology, agriculture, livestock energy. Care was taken to include non-state actors

with particular attention placed on gender, youth, those with disabilities, the private sector (solar, food processors, charcoal agents) and environmental NGOs. The team also included experts from environment, communication, geology, agriculture, forest and climate change faculties of the Universities of Dar es Salam and Sokoine.

The multi-stakeholder team worked with international and national scientists on various projects under the NAFORMA initiative. The purpose of combining policy-makers, experts, stakeholders and scientists was to try to understand climate change in terms of causes and symptoms as well as to identify mitigating and adaptive solutions that fell outside the comfort zone of the scientists and outside the conventional academic approach to social sciences. For instance, in the research on wildfires, international and national experts worked with the NAFORMA multi-stakeholder team to reach a consensus on how to approach the study on wildfire as an ecosystem issue rather than an ecological problem. While experts assisted in putting issues into perspective, the multi-stakeholders worked together to identify methodologies, questions of special interest and areas of study, numbers of groups of people to participate in studies and the interrelationship of existing constraints in dealing with wildfires. Techniques, groups involved, approaches, view-points and variables went beyond the purview of a single discipline.

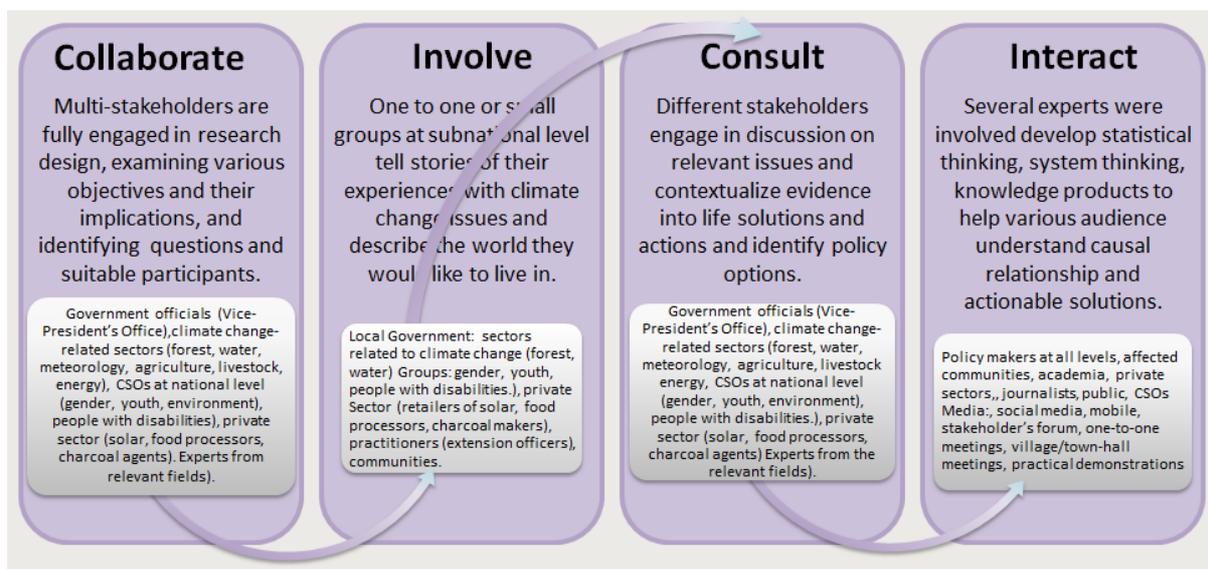
Some of the members of the multi-stakeholder team participated in data collection at sub-national levels. Data was collected from different groups including: Local Government Authorities and officers, NGO groups on the environment that was mandated to include gender, youth, and people with disabilities, private Sector organizations and entrepreneurs (retailers of solar, food processors, charcoal makers), practitioners (extension officers and community officers), influential leaders and others living in communities (farmers, youth, women, hunters, loggers and pastoralists). In addition to using tradition methods of data collection (interview and survey), the team organized “think-aloud” sessions to encourage and facilitate different groups at the sub-national level to participate in discussions and tell stories from their own experience about the issue of wildfires as they impacted their environment as well as social, economic and cultural lives. The participants were briefly informed about the importance of the wildfire study and identified several scenarios around the subject that were used as talking points during the discussion.

Section 2: Engagement in Data Sense-making

Past experience validating general stakeholders who were then expected to be responsible for communicating and using the data has revealed that for the most part they do not know how to make sense of the research results. Consequently the data ultimately failed to inform policy or solve any problems; hence the investment in that particular research element was a waste. Therefore, in this research, data on tacit knowledge, generated from stakeholders’ life-experiences, combined with explicit knowledge on existing policies, studies and project assessment reports made available to the multi-stakeholder team. The team, with guidance from experts, interpreted, analyzed and presented the results in ways that could be understood in their context without jeopardizing the validity of the data.

As a result, knowledge was gathered about multiple issues ranging from poverty, diversification of the economy and income generation, through renewable energy, green agriculture, youth employment and gender roles to indigenous knowledge among other issues. Real-life solutions, limitations and constraints to address wildlife issues were considered. Research became a forum of interaction where the scientists were all responsible for framing, producing and implementing knowledge. The task of the researches was simplified. Their main responsibility was to ensure the scientific excellence of research questions and the process. They also contributed background to wider perspectives of the problems, solutions and actions in an interconnected manner.

The Ministry of Natural Resources and Tourism found it necessary to have an institution (Tanzania Forest Service —TFS) to augment the understanding of policy-makers, practitioners and citizens by continually advancing the utilization of evidence to improve the environment and people’s livelihoods. Experts were involved to turn the data into stories to communicate the numbers so that they made sense to people. Experts with skills in visual thinking were engaged to present the issues in meaningful and interactional terms. Knowledge production experts helped to turn the document into a readable version for policy makers at all levels – as well as for academia, private sectors, practitioners, CSOs and the general public. Different communication outlets were developed to share the evidence, including television, community radio, social media, mobile phones, forums for stakeholders and experts, one-to-one meetings with policy makers, village/town-hall meetings in the districts and villages, and through practical demonstrations.



Section 3: Conclusions

1. The evidence shows that research methods that surpass or challenge conventional academic parameters are poorly (if at all) funded, reviewed and published. There is a need to include evidence-informed decision-making in academic teaching, particularly in masters’ programs and to mentor students to conduct research that is likely to identify solutions for the problems being researched.
2. Evidence-informed decision-making (EIDM) should not be considered a onetime event but rather a part of everyday policy and practice. It is also an unending process that requires the responsible institution to generate and communicate evidence continually.
3. Information is the key when it comes to co-designing, co-producing and co-sharing knowledge. But there is no receiver or sender of information; every stakeholder is a receiver and sender of the information at the same time. Rather than being just consumers of evidence, all stakeholders can be collaborative co-designers of the production, utilization and dissemination of that evidence. Research should not serve merely as a tool to inform people about problems; rather it should be a means to engage people to find actionable solutions for problems. Evidence should be used to transform mindsets, structure and policies to enhance climate change adaptation amongst all stakeholders.

4. Research becomes a peer-to-peer learning platform. Scientists learn from stakeholders and *vice versa* through a process which produces new knowledge about problems and challenges and presents solutions, actions and commitment available to address them.
5. The tangible results of knowledge co-production include: understanding the connectivity of issues, soliciting ownership, determining short- and long-term societal impacts, devising actions and plans, building networks and trust and providing required capacity building for stakeholders to become active participants.
6. Evidence-informed decision-making should not be seen as a project but as a co-designed, co-produced and co-shared process to find solutions to problems that a single discipline cannot do.