

Info Note

Scenario guided policy planning: processes, comparisons, and lessons from East Africa

Insights from participatory policy review processes in Tanzania and Uganda Perez Muchunguzi, Edidah Ampaire, Mariola Acosta, Lucas Rutting, Martin Tumuhereze, Caroline Mwongera, John Francis Okiror and Piet van Asten

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Key messages

- Participants in policy processes require constant communication and networking among stakeholders to be able to exploit the available policy windows.
- The review process requires a dynamic and engaging tool. The robustness of a review tool is one step toward having a good and fruitful review process.
- Using socio-economic scenarios and quantitative evidence in policy review processes allows policy actors to develop a great body of information in an all-inclusive manner, keeping all stakeholders engaged. This alone, however, does not guarantee success.
- State and non-state actors need to invest in trust building if the citizenry is to benefit from the fast approaching private-public partnership frameworks.
- It is beneficial to work on a single policy document that is already under a review or formulation process.

The clear early role of the Learning Alliance

The invitation to participate in the National Environmental Policy (NEP) review was initiated by the then-Director of Environment in the Vice President's office of Tanzania. While officiating at the launch of the National Climate Change Learning Alliance, and appreciating the need for a meaningful review of the NEP (1997), he invited the learning alliance members to participate in the ongoing review of the NEP (1997).

Taking advantage of this call, communication between the CCAFS Policy Action for Climate Change Adaptation (PACCA) project, the Vice President's Office, and the Climate Change Learning Alliance led to a series of workshops that adopted the CCAFS socio-economic and climate scenario approach to review the Tanzanian National Environment Policy of 1997.

Scenarios background

The development and use of scenarios originates in the military and the private sector. Scenarios are 'what if' stories about the future, told in words, numbers (models), images and other means. Rather than attempting to forecast a single future in the face of broad future uncertainty, scenarios represent multiple plausible directions that future drivers of change take (Wilkinson and Eidinow, 2008).

Scenarios are used to test and develop policies, plans and investments. Each scenario offers different future challenges and opportunities. Therefore, for each scenario, planners can ask the questions: *'How well will our plan work under the specific conditions of this scenario?' 'What needs to be changed?'* When recommendations for improvement from a range of different scenarios are integrated, the plan has a better chance of being effective in the face of an uncertain future – for instance by having strategies that are expected to work under all scenarios, or by including a range of different options that can be used depending on the specific scenario.

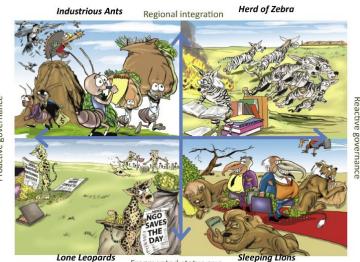
Scenarios can also be used before a plan exists, by starting with the challenges and opportunities that different scenarios offer, coming up with ways to approach those issues, and then combining them in a new, robust, plan.

The CCAFS scenarios process focuses on working with stakeholders to prioritize contextual drivers of change for agriculture and food security – climate change and socio-

economic changes (e.g. in markets, governance, broad economic developments, infrastructure).

The CCAFS East African regional scenarios

The CCAFS scenarios for Eastern Africa were developed in 2010 and 2011 (Vervoort, 2013). These four scenarios were identified using drivers that were considered highly relevant by stakeholders: regional integration and mode of governance. A visualization of these scenarios is shown in Figure 1.



Proactive governance

Fragmented status quo Figure 1. Pictorial form of the four scenarios developed for East Africa. Source: Vervoort (2013)

Downscaling the East African scenarios to Tanzanian specific scenarios using the National Environment Policy

Drawing from the four CCAFS East Africa scenarios, participants worked towards adapting them to fit the specific national conditions using the issues addressed in the National Environment Policy. Two drivers of regional integration and governance were adapted to be able to cast an accurate picture at the national level. Governance was maintained but regional integration was adapted to coordination especially between central and Regional Administration and Local Government authorities. It is important to note that while the National Environment Policy under review has many sections with a number of issues in each, the majority of the issues addressed in this brief are climate change issues from the agriculture and land use section as this is what directly relates to food security.

Industrious Ants Scenario

This scenario features slow but strong economic and political development in East Africa, accompanied by proactive government action to improve regional food security. However, on the down side, costly battles with corruption continue and peace is fragile, since the region has to deal with new international tensions as a result of its growing prominence on the global stage. The region's focus on the production of staple foods, rather than highvalue crops for export, undermines its participation in the global market for a time, while an over-reliance on trade within the region causes problems when climate extremes intensify. By that time, though, many government and non-government support structures are in place to mitigate the worst impacts. Governments and their partners work well together and achieve some success in mitigating the adverse environmental impacts of increased food and energy production, although the need to put food security and livelihoods first overshadows these efforts from time to time.

Due to pro-active governance, different types of agricultural production have been made more climate resilient. Climatic shocks or unpredicted events have increased, but most farmers are better prepared to cope with these. Climate instability remains, however, a threat to smallholders.

Herd of Zebras Scenario

In this scenario, governments and the private sector push strongly for regional development, but mainly through industry, services, tourism and export agriculture, with limited action on food security, environments and livelihoods. East African economies boom, but the region suffers the consequences of its vulnerability to global market forces and unsustainable environmental exploitation. Only when food insecurity becomes extreme, following rocketing food prices during the great drought of the early 2020s is action taken to improve the management of water resources and invest in climatesmart food production for regional consumption.

Concerning the livestock sector, the industrialization growth of the middle-income population contributes to increased demand for livestock products in this scenario. There is an increase in livestock processing and demand for livestock drugs. High livestock numbers contribute to land degradation, inadequate water resources and grazing land. Scarce feed and water for livestock is also contributed by land taken up by industries and pollution. In the fisheries sector, pollution leads to destruction of water sources and reduction in fish stocks, leading to loss in biodiversity and loss of livelihood sources for fishing communities. Industrialization increases demand for fish production resulting in high prices. Demand also results in use of poor fishing techniques including an increase in deep sea fishing. The poor are unable to afford fish products and suffer from poor nutrition. High pollution increases incidences of contaminated fish which contributes to human diseases. As a result of high industrial emissions there will be an increase in volumes of GHGs released, resulting in accelerated climate change. In the short-to-medium term, there will be an

increase in climate variability affecting the smallholder farmers. These poor farmers will have low adaptation capacity to the new climate shocks. The government's response will not be designed around structural support to mitigate climate change, but rather on managing the resulting disasters.

Lone Leopards Scenario

In this scenario, regional integration exists only on paper by 2030. In reality, government and non-government institutions and individuals are busy securing their own interests. In terms of food security, environments and livelihoods, the region initially seems to be heading for catastrophe in the 2010s. However, after some years, national and international as well as government and nongovernment partnerships become more active, and, unburdened by strict regional regulations and supported by international relations, are able to achieve some good successes by the 2020s. Unfortunately, because of the lack of coordination, this is a hit-and-miss affair, with some key issues ignored while on others there are overlapping or competing initiatives. The inability of governments to overcome regional disputes and work with one another becomes untenable when a severe drought hits in 2020. This pushes civil society, bolstered by international support, into a demand for radical change in governance. In many cases, the resulting change is long lasting and for the better.

In this scenario, government is in a move to attract more foreign investment and is uncoordinated; there is a lot 'investors' flocking in and buying big chunks of land for commercial crop development, directly and indirectly reducing protected areas. As a result, locals are increasingly becoming landless. And because of reduction of the primary forests fueled by big commercial plantations, the tourism sector is affected. This is further affecting the funds allocated for conservation as most of the money from revenue is siphoned. Farmers are powerless and not well organized and thus vulnerable to both input and output market forces. This is leading to lack of competitiveness with other markets in the region. The government and other stakeholders are promoting fish farming but efforts are isolated and uncoordinated. There is a lot of food insecurity especially in the countryside.

Sleeping Lions Scenario

This scenario is all about wasted potential and win–lose games. Governments in 2030 are only acting in response to serious situations and in ways to further their own selfinterests, thereby allowing foreign interests free rein in the region. Their actions – or lack of them – have devastating consequences for East Africans' food security, livelihoods and environments. Conflicts, protests and uprisings are common, but each time reform is promised, it fails to materialize. The lack of coordinated effort on climate change and its impacts means that a severe drought occurring in 2020–2022 results in widespread hunger and many deaths among the region's poor and vulnerable. It is only the adaptive capacity and resilience of communities, born out of decades of enforced self-reliance based on informal economies, collaborations and knowledge sharing, that mitigates the worst effects of this disaster. The first signs of better governance emerge only in the late 2020s, but the region's population still faces a very uncertain future.

Under this scenario, deforestation in Tanzania is occurring widely with a clearing of forest rate happening at a faster pace than the natural recover pace. Regardless of many good policies and programs to protect the forest (e.g. REDD, NAPAs), implementation of these policies is weak. Additionally, conflicts over land tenure are increasing since governments are leasing a lot of land. Land tenure conflicts happen at a multitude of levels: 1) local communities among themselves; 2) livestock keepers vs. farmers; 3) local community vs. investors; 4) government vs. local communities.

In this scenario, water scarcity and increase of pest and diseases constitute the major problems for the livestock sector. Furthermore, the government is increasingly encouraging farmers to reduce the number of animals and keeping livestock in modern facilities. However, this is not happening, since for farmers keeping animals is a matter of investment and prestige. Pastoral communities are moving beyond their traditional livestock corridors because of lack of water and pasture. In this scenario, milk production is declining because of lack of adequate pastures. This creates a decrease in profits for livestock keepers that more likely will change occupation because of lack of profit. In a changing climate and in the sleeping lions scenario, culture will change progressively out of necessity. For instance, traditionally many men would keep 40-50 cows for the dowry but with the increasing lack of pasture and water, this will not be possible anymore in some areas.

Participatory scenario-based recommendations

The scenarios developed specifically for the Tanzanian context were used to test the different issues that are addressed in the draft NEP (1997). These are some of the recommendations that were then suggested for consideration at both policy and strategy level:

Private sectors and civil society organization (CSOs) roles should be clearly stated in the policy so that inaction from stakeholders, including government, can be checked.

- Government should address current informal settlements—they should be upgraded in terms of water access and sanitation.
- Coordination among the concerned stakeholders regarding land use management is necessary.
- Government should promote participatory management of fishing areas, for example planting of mangrove trees.
- The government should put in place a strategy to promote and regulate fishing and aquaculture detailing diversified alternative livelihoods/diversified sources for fishing communities.
- Review the Land Act and include an ultimatum for each actor to have started developing the land within a certain amount of time, such as two years. This will reduce grabbing of land by speculators.
- Government should formulate a livestock strategy designating land-use plans including communal grazing for livestock/grazing to reduce livestock agriculture-conflict. The strategy should stipulate, among other things, the carrying capacity related to the size of the designated land to avoid overgrazing as well as have milk and meat processing plants to be set up within each livestock community.
- Government should implement strategies for creating awareness and enforcement of fisheries laws at the local levels to guard against pollution of water sources.

Examining these recommendations reveals that these are issues that increase smallholder vulnerabilities to climate impacts. As proposed, having in place and enforcing policy frameworks that address the sources of vulnerabilities would greatly reduce smallholder vulnerabilities.

Comparing the scenario processes in Uganda and Tanzania

The scenario review processes took place in Tanzania and Uganda, which are the CCAFS Policy Action for Climate Change Adaptation (PACCA) project target countries. The Uganda Info Note (Rutting et al., 2016) covers the entire process and lessons learnt but here we look at a comparison between the two countries for learning purposes (see Table 1). While other review processes followed in Uganda, the comparison focusses on the very first reviews that worked on the national agriculture policy and the mechanization framework.

Lessons learnt in the review process

- There is need to fully bring on board all actors working on the review process including consulting firms where applicable so as to not lose knowledge contributed by the stakeholders. Stakeholder participation also enables those participating to learn about the policy and will likely respond to its implementation.
- The review process would benefit by having policy experts in each of the reviewing groups. This allows appropriate policy issues framing and avoids having policy statements read like implementation strategies.
- Scenario-guided planning as a tool is a very practical way of utilizing research-generated evidence to influence policy, especially for unpredictable phenomena like climate change.

Indicator	Tanzania	Uganda	Observation/Remarks
Policy document targeted for review	National Environment Policy (NEP 1997)	Irrigation policy	Both for Uganda and Tanzania, these policies are relevant to climate change. The NEP is the main policy guiding climate change issues in absence of the stand-alone climate change policy. The Ugandan Irrigation policy is important in addressing the persistent prolonged droughts that is one of the major impacts of climate change especially for rural farming households
Document reviewed	National Environment Policy (1997)	Agricultural Sector Mechanization Framework	With a late communication from the ministry that the irrigation policy had gone to top policy management and thus not available for review, two documents were suggested by the ministry of agriculture for review.
		National Agriculture Policy	It had already been launched, thus the review would not affect the policy but was hoped to inform the development of the implementation strategy, which plan was not tagged to any period.

Indicator	Tanzania	Uganda	Observation/Remarks
Stakeholder diversity	Vice President's Office; Prime Minister's Office; Ministry of Agriculture; Ministry of Livestock and Fisheries Development; Ministry Natural Resources and Tourism, Water; Ministry Health and Community Welfare; Ministry Transport; Ministry of Education and Vocational Training; National Environmental Council (NEMC); The University of Sokoine; University of Ardhi; University of Dar es Salaam; International Centre for Tropical Agriculture (CIAT); International Institute of Tropical Agriculture (IITA); University of Oxford	Ministry of Agriculture; Ministry of Water and Environment; International Centre for Tropical Agriculture (CIAT); International Institute of Tropical Agriculture (IITA); University of Oxford	It is important to have officials responsible for the policy/plan involved in the process from the start, as well as stakeholders representing civil society (some representing vulnerable groups such as smallholder farmers, women and youth), academia and the private sector, in order to make the process democratic/ inclusive and transparent. In Tanzania, specific stakeholders were already mapped to participate in the policy review, thus there was diversity in participation. In Uganda, the diversity was limited, even owing to the fact that there was limited time to mobilize a variety due to last minute changes.
Post workshop processes	Regional consultations on the draft policy document were conducted across Tanzania	Other processes reviewing documents followed the first encounter including the review of draft Agricultural Sector Strategic plan (2016- 2021) and Draft National Water Policy. Stakeholder consultation was demanded by non- state actors, which opened the process to broader stakeholder input.	Generally, in both countries, the first event was welcomed with a lot of enthusiasm. Proceeding engagements varied between countries. In Tanzania, we needed to facilitate the process since the review of the policy document lay in the hands of the consulting firm. In Uganda, the first review served as an eye opener that later led non-state actors to create demand to apply the process on other strategies.
Extent to which climate change and food security is addressed while downscaling scenarios	Land use and agriculture was only one section out of five covered by the policy document. The policy covers other environmental issues that are not directly related to climate change and food security. Climate change is also addressed as a section under environmental quality and health.	Both the national agriculture policy and the mechanization framework directly relate to food security and, thus, are strongly related to and affected by climate change.	The extent to which climate change and food security is addressed in a document depends on how focused and well laid out the issues are in that document. The opportunities to address climate change become minimal when food security and climate change are not central.
Issue raised during the review process	The framing of the scenario recommendations given participants were reasonably specific and therefore seen as inappropriate for a policy.	Specific issues were perceived to be relevant at project development level but not appropriate for policy statements.	It is important to have policy experts in groups to complement the stakeholder diversity with policy expertise. However, limiting specificity of the statements negatively affects sufficient integration of climate change issues. While it is not known how much of the recommendations will end up in the policy document, the statements were appreciated to be good for the development of policy implementation strategies and plans.

- Working with documents that are already in review/formulation quickens the process more so than engaging with policies that are recently approved or are under implementation and not being reviewed.
- Prior investment in achieving common understanding with all stakeholders on how the demands and benefits of the tool will be used and on the process to follow is indispensable. Otherwise government officials throw recommendations aside and maintain their priorities. In particular, if the officials do not trust the partner, they interpret the demand to participate in policy review as 'meddling in their business'.
- Accessing government documents requires trust which in turn relies on good previous working relationships built on transparency and professionalism. It might also be helpful to develop personal contacts to fall back on when processes do not work as expected.

Next steps

After the scenario-based review of the National Environment Policy, the policy has gone through the regional consultation processes and the final draft has been shared. The next steps will involve integrating the scenario generated comments in the process of developing the implementation strategy

Further Reading

- Kok K, Rothman DS, Patel M. 2006. Multi-scale narratives from an IA perspective: Part I. European and Mediterranean scenario development. Futures 38: 261-284.
- Rutting L, Tumuhereze M, Ampaire E, Muchunguzi P, Acosta M, Okiror JF, van Asten P. 2016. Scenario-guided policy planning in Uganda. CCAFS Info Note. Copenhagen, Denmark: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).
- Van Vuuren DP, Kok MTJ, Girod B, Lucas PL, de Vries B. 2012. Scenarios in Global Environmental Assessments: Key characteristics and lessons for future use. *Global Environmental Change* 22 (4): 884-895.
- Vervoort JM, Palazzo A, Mason-D'Croz D, Ericksen PJ, Thornton PK, Kristjanson P, Förch W, Herrero M, Havlik P, Jost C, Rowlands H. 2013. The future of food security,

environments and livelihoods in Eastern Africa: four socioeconomic scenarios. CCAFS Working Paper no. 63. Copenhagen, Denmark: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).

 Wilkinson A, Eidinow E. 2008. Evolving practices in environmental scenarios: a new scenario typology. Environmental Research Letters, 3 (4), p.45017.

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Perez Muchunguzi (p.muchunguzi @cgiar.org) is a multistakeholder specialist at IITA. Edidah Ampaire (e.ampaire@cgiar.org) is a social science researcher at IITA. Mariola Acosta (acfra.mariola@gmail.com) is a research fellow at IITA and PhD candidate at Wageningen University. Lucas Rutting (I.rutting@uu.nl) is scenarios and policy researcher at the Copernicus Institute of Sustainable Development, Utrecht University. Martin Tumuhereze (m.tumuhereze@cgiar.org) is a research associate at IITA. Caroline Mwongera (c.mwongera@cgiar.org) is a farming systems and climate change scientist at CIAT. John Francis Okiror (if.okiror@cgiar.org) supports communication at IITA. Piet Van Asten (P. Van Asten@cgiar.org) is a systems agronomist at IITA.

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