



Climate change policy in Tanzania – is it needed?

How to ensure that development efforts are not undermined by climate change.

Key Messages

- Tanzania would benefit from a stand alone climate change policy and incorporating climate change into National Development Strategies
- The impacts of climate change will have direct implications on social and economic development in Tanzania
- Rural Tanzanians will be more adversely affected by climate change than urban populations, as will women and those most marginalized
- Tanzania is not alone – there are great opportunities to learn from what our neighbors are already doing to address climate change in development agendas and policy frameworks
- Tanzania should ensure that all sectors are 'Climate-Proofing' their plans and strategies

Summary

Climate change and its implications on development in Tanzania should not be understated or ignored. Instead, discussions on our changing climate should begin with the recognition that climate change is undermining efforts to eradicate poverty. Yet, scientific complexities, jargon, uncertainties and debate have led to a general lack of understanding and confusion on how to address a changing climate, including policy prescriptions. This brief outlines some key findings with regard to the climate change policy framework (or the lack thereof) in Tanzania and provides recommendations for moving forward in a strategic manner. It takes the underlying assumption that climate change and its impacts can weaken development efforts in Tanzania and needs to be addressed with a more aggressive and strategic approach. Overall, it is clear that Tanzania would benefit from a well articulated stance on climate change, showing committed political will and support for climate change at the national level, as well as an understanding of its importance internationally.

Climate Change Impacts in Tanzania – are we prepared?

There are numerous reports and publications currently available that points to climate change as being the most challenging global crisis due to its all-encompassing nature—impacting nations, cultures, regions, continents, generations and species. Despite this acknowledgment, climate change is yet to take a dominant position in Tanzania's country strategies and poverty reduction plans. Yet the country's National Adaptation Programme of Action (NAPA)¹ published in 2007 offers more than 60 pages of alarming grounds for concern. Of greatest significance is the assessment that a 2°C rise in temperature could reduce yields of Tanzania's staple maize crop by as much as 33%. Analyses illustrate that if Tanzania's farmers and farming practices do not adapt, the impacts of climate change will be extreme and they will ripple through the country's entire economy as so many sectors are dependent on agriculture. Climate

change could reduce yields of maize, yet it could provide favourable results in the production of other crops such as wheat, rice and barley.

The impacts of a changing climate on agriculture will hit the poorest Tanzanians first and hardest. Therefore, ensuring that tools and resources to adapt are available and accessible should be a priority. An immediate focus might be helping farmers adapt to climate impacts by addressing both food production and marketing efficiencies. Such tools would be an effective strategy to address potential impacts while also assisting with development. To ensure recent progress continues, the Tanzanian economy will require "climate-proofing" measures, which means reducing potential risks from impending climate impacts. In agriculture, climate-proofing would mean first helping farmers to both mitigate and adapt, then helping rural livelihood systems become more resilient. Although food and water shortages are not new to Tanzania, the concern is that they appear to be happening more frequently and harshly. Despite persistent drought, floods are also experienced. For example, in January 2010, floods affected many parts of central Tanzania

¹ National adaptation programmes of action (NAPAs) provide a process for Least Developed Countries (LDCs) to identify priority activities that respond to their urgent and immediate needs to adapt to climate change – those for which further delay would increase vulnerability and/or costs at a later stage.

impacting nearly 30,000 people in areas of Dodoma and Morogoro. There is a growing body of evidence that shows the links between climate conditions and the onset of droughts or flood. A 2011 study in Tanzania points out to the fact that these droughts and those experienced in 2005/06 have already had significant economic cost to Tanzania². These emergency situations naturally limit sustainable development in Tanzania.

The table below summarises predicted impacts of climate change in Tanzania:

Sector	Current & Expected impacts caused by average increase of 2-4°C
Water	<ul style="list-style-type: none"> • Diminish water availability for crops and livestock • Deep tropical lakes are experiencing reduced algal abundance and declines in productivity • Increased water scarcity
Agriculture and Livestock	<ul style="list-style-type: none"> • Maize yield to decrease by 33% in 2075 • 10% loss in grain production by 2080 • Increased crop losses due to weeds, diseases and pests • Livestock affected by reduced water and forage • Increased atmospheric CO₂ levels will result in changes in plant species and create favourable conditions for ticks, snails, blood-sucking insects, and other pests that will increase incidences of trypanosomiasis, liver flukes, and outbreak of armyworms
Fishing	<ul style="list-style-type: none"> • Productivity in Lake Tanganyika may have decreased up to 20% over the past 200 years, and for the East African Rift Valley lakes, recent declines in fish abundance have been linked with climatic impacts on lake ecosystems
Environment	<ul style="list-style-type: none"> • Ice cap of Mt. Kilimanjaro could melt by 2020, already a 55% loss of glacier between 1962 and 2000 • Wooded grassland and dry forests to become more common • Loss of 'cloud forests' since 1976 resulting in 25% annual reductions of water sources derived from fog, affecting annual drinking water of 1 million people living in Kilimanjaro • General shift in forest ecosystems, in terms of changing forest types and species and distribution of forests. Indirect impacts are also expected as the CO₂ concentration in the atmosphere doubles: subtropical thorn woodlands will be completely replaced and subtropical dry forests and subtropical moist forests will decline by 61.4% and 64.3%, respectively
Tourism	<ul style="list-style-type: none"> • A 30% loss of corals reduced tourism in Mombasa and Zanzibar and resulted in financial losses of about US\$ 12-18 million
Animals, birds	<ul style="list-style-type: none"> • Mangroves and coral reefs: endangered species associated with these ecosystems, including manatees and marine turtles, could also be at risk, along with migratory birds

Source: various (Watkiss 2011, Mwandosya 2006, Levira 2009, Paavola 2004, Agrawala 2003, WWF)

Generally, sub-Saharan Africa lacks the capacity and resources needed for adaptation to climate change as a result of underdevelopment. This makes the predicted impacts very realistic threats to Tanzania. To address such threats, Tanzania should climate-proof their development strategies and develop policies and procedures to ensure its development activities are prepared to endure changes in climate, including climate-induced catastrophes.

² Watkiss, P. et al (2011) The economics of climate change in the United Republic of Tanzania: Report to Development Partners Group and the UK Department for International Development. Published January 2011

Key Findings

The following findings speak to the importance of climate-proofing development in Tanzania.

Finding 1: There is no stand alone climate change policy in Tanzania

All climate change related initiatives are coordinated through the aegis of the Tanzania National Climate Change Steering Committee, an interdepartmental forum that brings together all relevant ministries and government agencies. Coordination is ensured through the services of the Vice President's Office (Division of Environment) and through regional decentralized authorities (districts). Despite these mechanisms, there is no specific policy on climate change in Tanzania. There are some climate change related policies that are currently under discussion and close to being implemented. The most closely related to climate change is the National Adaptation Plan of Action (NAPA) for Tanzania as well as the draft National REDD (Reduction of Emission from Deforestation and Degradation) Strategy. But, there remains a gap in a direct policy or strategy on climate change.

Finding 2: Climate change is not yet fully incorporated in the National Development Strategies

Despite the fact that climate change has become the top agenda item in the international Millennium Development Goals (MDGs), national frameworks to reduce poverty and adapt to climate change rarely, if ever, have clear connections. In Tanzania, the main poverty reduction strategies such as MKUKUTA and Vision 2025 have more or less ignored climate change issues. MKUKUTA II briefly mentions climate change as a cross cutting issue to be addressed. However, despite this mention, there appears to be gaps and disconnects between climate adaptation and poverty reduction frameworks. These gaps signal the need for more effort to be placed on improving links between climate change adaptation plans and projects, and country-led poverty reduction strategies.

Finding 3: Rural Tanzania is affected worse than urban areas

Agriculture, an activity that is highly vulnerable to climate change, is Tanzania's main economic activity. It employs roughly 80% of the total population, most of it in

rural areas. The adverse impacts of climate change in the agriculture sector includes reduced crop yield and reduced water availability³. Shifting of the seasonal rainfall, one of the predicted outcomes of climate change, bringing too much rain when it is not required, is predicted to affect harvests. In addition, dramatically rising temperature trends, responsible for increased evapotranspiration in the soil, may keep crops from maturing due to lack of enough moisture in the soil, and thus produce a shortage of food. Therefore, climate change will adversely affect food production, energy, and water supply, which are preconditions for the well-being and survival of rural households, the clear majority of the country's population. Moreover, predicted changes will have adverse consequences on incomes. Rural populations are generally also more vulnerable than urban ones at a broad scale. Health and nutritional status as well as educational is lower in rural areas than in the cities⁴. Rural inhabitants also suffer more from the lack of access to technological alternatives and markets. The dependence of rural communities on environmental resources suggests that the sustainable governance of these resources should be one priority area for action.

Finding 4: Women are more impacted by climate change than men

Climate change is predicated to accentuate the gaps between the world's rich and poor, and women are among the poorest and most disadvantaged. Women constitute the majority of low-income earners. Typically positioned in cycles of dependency and co-dependent roles, women have to strive to maintain the household and its nutritional needs. However, the contribution of women to environmental policy is largely ignored. Environmental decision-making and policy formulation at all levels, such as conservation, protection and rehabilitation, and environmental management, are more or less male dominated. Climate change analysis has so far been science-driven, presented in terms of greenhouse gases and emissions. While the scientific analyses remain crucial, social imperatives must be taken into account. Although there are no obvious scientific direct linkages between climate change and women, its potential impacts in terms of socio-economic



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3 Levira, Pamela (2009) Climate Change Impact in the Agriculture Sector in Tanzania and its mitigation measures.

4 Jouni Paavola, Vulnerability to Climate Change in Tanzania: Substance and Solutions Centre For Social And Economic Research On The Global Environment Centre, University Of East Anglia

vulnerability and adaptation place women in a key position. Rural women form a disproportionate share of the rural poor. Women are more vulnerable to climate change because they are more likely to be poor and have fewer coping mechanisms than men, and have additional responsibilities. At the simplest level, women, especially in the rural areas are people who gather the fuel and fetch water. They cater for the children and the men as well and therefore, if their farm is not working efficiently and effectively, then whole family goes hungry.

Good Practices from our neighbours East, West and South

Nigeria has a National Climate Change Commission chaired by the Vice President. This Commission is an independent body under the Presidency, charged with coordinating existing institutions, setting policy priorities, and developing action plans and expansion of international cooperation.

Kenya developed its first National Climate Change Response Strategy (NCCRS) in 2010 in order to put in place robust and thorough adaptation and mitigation measures to minimize risks and maximize opportunities.

Similar to Kenya's approach above, South Africa also has developed a National Climate Change Strategy. In 2010, the South African Department of Environmental Affairs expressed a "firm intent" to complete the country's national climate change policy white paper. By end of 2010, South Africa's draft national Climate Change Policy, had been approved by Cabinet

Recommendations

Tanzania has made some headway in general environmental management with its Environmental Management/Protection Act and other natural resource policies; however, there is only a brief mention of climate change in this Act. Based on the above findings, the Government of Tanzania would likely benefit from showing committed political will and support for climate change at the national level. As it stands, there seems to be a large gap between ongoing activities related to climate change and the lack of clear policies, strategies or institutional frameworks in place to tackle climate change. Based on the findings, there is a practical need to have a dedicated climate change policy in the country. Therefore the following key recommendations are suggested;

- 1. Creation and implementation of a climate change policy in Tanzania.** There are some who argue that a standalone policy is not necessarily the solution, instead, there should be concerted efforts to integrate climate change into every sector plan and/or strategy. However, what this brief argues is that there is indeed a need for a standalone policy on climate change. As detailed above, this is critical for sound institutional framework in addressing climate change;
- 2. Consider incorporating climate change in the Constitution of the United Republic of Tanzania** – with the upcoming review process, climate change should be incorporated into the 'mother' policy – the Constitution. Good lessons can be learnt from Kenya and South Africa (see above) that, in their constitutional review process, successfully incorporated climate change into the new Constitutions, thereby protecting the environment for future generations. In this way, climate change is viewed as a human rights issue due to the impacts of livelihoods and should be protected in the Constitution.
- 3. Ensure priority focus on gender equality and rural populations.** Climate change discussions and any policy prescriptions should considered both rural and gendered dynamics of climate change; and
- 4. 'Climate-Proof' Development in Tanzania.** Development should be 'climate proofed' meaning each sectoral plan should address climate change in individual sector policies.

