

# Info Note

## Review of policies and frameworks on climate change, agriculture, food and nutrition security in Tanzania

*Dorothy Amwata, Madaka Tumbo, Catherine Mungai, Maren Radeny and Dawit Solomon*

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### Key messages

- Tanzania has made significant efforts to integrate climate change adaptation and mitigation into agriculture, food and nutrition security policies and frameworks.
- There are significant efforts in strengthening agriculture, food and nutrition security at the national level in Tanzania with an opportunity to increase sub-national level connectedness to the district levels.
- There is need to enhance awareness of local farming communities, extension officers, regional and national-level practitioners on climate change, agriculture, food and nutrition security policies and strategies.
- There are opportunities for engagement with the private sector to support scaling-up of adaptation and mitigation actions in agriculture.
- Most climate change institutional initiatives in Tanzania are often top-down, and donor driven with limited impact at the local level, emphasizing the need for stakeholder mapping and bottom-up approaches.
- There are opportunities for research organizations such as the CGIAR to support on-going forward-looking national-level policy processes in Tanzania and strengthen integration of climate change, agriculture, food and nutrition security. These include the National Adaptation Programme of Action implementation and Climate-Smart Agriculture (CSA) Program guideline process among others.

### Introduction

The Republic of Tanzania is an agriculture-based economy. Agriculture contributes 28% of the gross domestic product (GDP), employs 88% of the working population and accounts for between 50% and 66% of exports (TNCCS 2012). Climate change is rapidly emerging as a significant risk affecting agriculture, food and nutrition security in Tanzania. The country is highly vulnerable to recurrent drought, further aggravated by widespread poverty, inequitable land distribution, and low technological capabilities. Climate change is expected to challenge the resilience and adaptive capacities of communities and overwhelm some, by exacerbating existing problems of food and nutrition insecurity.

Warming trends are evident in the patchy observational records for most of Tanzania and across the region, with mean annual temperature increasing by 0.29°C per decade over the last 30 years (Climate Service Centre Germany 2016). The long rains in the north show a declining trend which is apparent in a range of datasets and there is no decreasing trend observed for the short rains (Rowell et al. 2015). Observations suggest that traditional rainfall patterns in Tanzania are being disrupted with late onset of the rains and wet seasons interspersed with prolonged dry spells (Sieber et al. 2015). Regarding future climate change, consensus on warming is high. Climate model projections suggest a medium-strong warming in the range of 1.4°C to 4.2°C (above average conditions for 1971-2000) by the end of the century (Climate Service Centre Germany 2016).

To cope with the impacts of climate change and variability in the agriculture sector, farmers have adopted CSA technologies and innovations such as short season drought-resistant crops, irrigation, adjusting planting

dates and planting trees. Similarly, the government has developed and operationalized policies, strategies, frameworks and legislation on climate change, agriculture, food and nutrition security. However, not much is known about the extent to which these policies and frameworks effectively integrate climate change, agriculture, food and nutrition security and vice versa. This brief presents a review of climate change, agriculture, food and nutrition security policies, strategies and frameworks in Tanzania, including the extent of their integration. The brief is based on a detailed literature review and extensive in-country expert consultations and is part of a series of studies carried out across five countries in East Africa. The literature review involved the collection of peer-reviewed literature, government, donor agency and NGO reports and other 'grey literature'.

## Methods

The review used three complementary approaches: desk review of relevant literature, publications, policy documents and frameworks on climate change, agriculture, food and nutrition security; stakeholder consultations, where 14 experts from relevant government ministries and agencies, and research organizations were interviewed based on their engagement and contribution to relevant policies and frameworks on climate change, agriculture, food and nutrition security; and relevance scoring of national and sector-specific policies, frameworks and programs regarding the extent to which they are designed to address climate change adaptation and mitigation, agriculture, food and nutrition security, with five weighted groups (on a scale of 1-5):

- Very high relevance (5) – climate change or agriculture, food and nutrition security are the primary objective;
- High relevance (4) – climate change or agriculture, food and nutrition security are a significant, but not primary objective;
- Moderate relevance (3) – climate change or agriculture, food and nutrition security objectives are not explicitly stated, but the activities promote climate change adaptation and mitigation actions, or agriculture, food and nutrition security;
- Little relevance (2) – climate change or agriculture, food and nutrition security are not the target objective, but activities have indirect adaptation and mitigation, or agriculture, food and nutrition security benefits;
- Very little relevance (1) – climate change or agriculture, food and nutrition security are not the target objective at all, but activities have minimal indirect links to climate actions, or agriculture, food and nutrition security.

The relevance scores were established for the different components of climate change (adaptation and mitigation), agriculture (productivity), food and nutrition security (availability, access and utilization). The weights were then aggregated to percentiles and grouped into three categories of relevance: high (>75%), medium (50-74%) and low (less than 49%).

About 17 policies and frameworks on climate change, agriculture, food and nutrition security were reviewed, including establishing the extent of their integration. These policies and frameworks included the National Communications submitted to the United Nations Framework Convention on Climate Change (UNFCCC), Nationally Determined Contributions (NDCs), National Climate Change Response Strategy (2012), National Climate Change Strategy (2012), Draft National Adaptation Plan (2015–2030), Agriculture Sector Development Programme II, National Adaptation Programme for Action, Tanzanian Agriculture and Food Nutrition Policy (2011) among others. Other cross-cutting policies and frameworks were also reviewed, focusing on the extent to which they integrate climate change, agriculture, food and nutrition security as per the set criteria. These included Tanzania Development Vision 2025, which had high relevance at  $\geq 75\%$ ; Big Results Now (BRN) and Environment Policy at medium relevance of 50-74%; and Tanzania Five Years Development Plan (FYDP) which had low relevance  $\leq 49\%$ .

## Integration of climate change into agriculture, food and nutrition security policies and frameworks

In Tanzania, climate change policy issues are addressed within the Ministry of Environment and coordinated by the Vice President's Office (VPO) through the Division of Environment (DoE) and the National Environment Management Council (NEMC). Specifically, DoE guides the integration of climate change into national policies and plans, while NEMC is responsible for enforcement as mandated by the Environmental Management Act (URT 2004). Although Tanzania lacks a national climate change policy, the National Climate Change Strategy (NCCS) developed in 2012 guides the integration of climate change into sectoral policies and plans (URT 2012).

Tanzania has made great progress to integrate climate change adaptation and mitigation into agriculture, food and nutrition security policies and frameworks. Table 1 shows the policies and frameworks on agriculture, food and nutrition security reviewed, including the extent to which they integrate climate change adaptation and mitigation.

*Table 1. Integration of climate change into agriculture, food and nutrition security policies and frameworks*

Agriculture, food and nutrition security policies and frameworks	Integration of climate change Weighted score (%)
Agriculture Climate Change Resilience Plan (2014–2019)	
Agriculture Sector Development Strategy (2015/16–2024/25)	High (≥75%)
National Adaptation Programme of Action (2007)	
Tanzania Climate-Smart Agriculture Programme (2015–2025)	
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Tanzania Agriculture and Food Security Investment Plan (2011/12–2020/21)	
Agriculture Sector Development Programme (2016)	
Food Security and Nutrition Policy (1992)	Medium (50-74%)
National Agriculture Policy (2013)	
Climate-Smart Agriculture Guideline for URT (2017)	
National Nutritional Strategy (2011)	
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Tanzania Five Years Development Plan (2016/17–2020/21)	Low (≤49%)

Tanzania’s NAPA marked a step in the integration of climate change in sectoral policies and plans. However, the extent of climate change integration into policies, plans and strategies and the development of stand-alone sector specific climate policies and strategy varied by sector. The National Energy Policy, for example, was the first of the three sectors to include a reference to climate change in 1992, stating that “destructive activities of man destroy the balance in the ecosystem leading to such effects as climatic changes” (URT 1992:21). In contrast, the first mention of climate change in water sector policy was in 2006 in the National Water Sector Development Strategy (URT 2006), published just before the NAPA.

### Integration of agriculture, food and nutrition security into climate change policies and frameworks

In addition, the review examined the extent to which national climate change policies and frameworks integrate agriculture, food and nutrition in Tanzania. The weighted scores were relatively high with most of the policies and frameworks (Table 2), ranging from moderate to high levels of integration. Similar to Kenya, Tanzania has prioritized and integrated agricultural productivity and food availability in its climate change frameworks.

*Table 2. Integration of agriculture, food and nutrition security into climate change policies and frameworks*

Climate change policies and frameworks	Integration of agriculture, food and nutrition security Weighted score (%)
National Initial and Second Communications	
National Adaptation Programme of Action (2007)	
National Climate Change Strategy (2013)	High (≥75%)
Nationally Determined Contribution	
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National Climate Change Communication Strategy (2012)	
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Water Resources Sector Management Strategic Intervention and Action Plan for Climate Change	Medium (50-74%)

The review also examined the extent to which projects and programs on agriculture, food and nutrition security integrate climate change adaptation and mitigation, and vice versa. Of the 28 projects and programs evaluated, 14% had a high weighted score (>75%), with the majority (65%) having a medium weighted score (50-74%) and 21% having a low weighted score (<50%). Some of the selected projects and programs are shown in Table 3. From the review most agriculture, food and nutrition security projects do integrate climate change adaptation, but with limited mitigation considerations. However, the climate change projects have fully integrated agriculture, food and nutrition security.

### Institutional landscape for climate change, agriculture, food and nutrition security

In Tanzania, there are several institutions implementing and coordinating different initiatives on climate change adaptation and mitigation, agriculture, food and nutrition security as shown in Table 4. The review shows institutional overlaps on areas of interventions, with limited mechanisms to track progress.

### Conclusions and opportunities for strengthening integration

The review shows that most sector policies in Tanzania do not adequately integrate climate change adaptation and mitigation strategies, which is a significant limitation in strengthening climate change action. Integrated approaches are needed in developing interventions aimed at promoting adaptation to climate change as well as mitigation. Financing of climate change initiatives has been more project rather than program based, thus creating no sustainability in financing of climate change initiatives. Financing is essential according to feedback from the stakeholders who pointed out that tackling climate change is long term and needs to be fully integrated into planning processes due to its linkage to development. The

Tanzanian government could consider setting aside a portion of each sector budget to mainstream climate change or have an annual budget for addressing climate change across scales.

Institutional capacity and knowledge at the national and local level to address climate change is still very weak with limited technical capacity of local governments to implement adaptation and mitigation plans and related actions. Gaps existing between national and local level efforts need to be addressed. While numerous efforts have been geared towards capacity building on climate change issues, there is still a massive gap in understanding of concepts and technical know-how in climate-proof planning at the local level.

*Table 3. Integration of climate change into agriculture and food security programs and projects and vice versa*

Programs and projects	Weighted score (%)
Agriculture Climate Resilience Program (ACRP) 2014–2019	High (>75%)
Global Framework for Climate Services (GFCS) Adaption Programme (2014–2017)	
Mainstreaming Climate Change Adaptation Through Small Grants Programme	
Strengthening Climate Information and Early Warning Systems for Climate Change Resilience in Tanzania	
Irrigation Scheme (Dakawa and Mkule)	Medium (50-74%)
Rice Project	
Kilimo Kwanza Programme	
Global Climate Change Alliance Programme	
Climate Finance Readiness Programme	
Strengthening Food and Nutrition Security and Decision Making through Support to the Integrated Food Security Phase Classification (IPC) System	
Agricultural Sector Development Project (2006–2016)	
Support Livelihoods Restoration to the Disaster Affected Communities in Kagera Region of Tanzania (2017–2019)	
UN Joint Programme to Support Sustainable Agriculture Value Chain Development in Tanzania	
Strengthening Climate Change Governance in Zanzibar	
Improve the competitiveness and increase post-harvest value chain of smallholder farmers	
Advancing “healthy street food incentives” to boost the safety and nutritional balance of street food in Sub-Saharan Africa	
Southern Agricultural Growth Corridor of Tanzania (SAGCOT)	
Participatory Agricultural Development and Empowerment Project (PADEP)	
Integrated Rural Development Programme in Pangawe Village	

There is a need to consolidate available expertise to promote south-south partnerships. The CGIAR, and other development partners could support efforts in addressing climate change through research and implementation of specific interventions to inform respective policies and plans. Support could be directly linked to ongoing initiatives such as the Agriculture Sector Development Program, Climate Resilience Program and the CSA Program for Tanzania. Continuous consolidation of capacity building initiatives of human resources, research, strengthening institutional frameworks and the physical infrastructure should be a priority of policies and programs.

*Table 4: Institutional landscape for climate change, agriculture, food and nutrition security*

Institutions	Mandate and focus areas
Vice President Office	Data, coordination, integration of climate change in sectoral polices
Forum Climate Change	Stakeholders engagement on climate, agriculture, food security and nutrition
Tanzania Meteorological Agency	Interpret and share climate data with relevant institutions
Research and academia	Mobilize resources for research, develop and strengthen relevant curricula on climate change, agriculture, food and nutrition security
Ministry of Agriculture	Setting policy framework and implementation of policies and plans
Development partners	Financial support for implementation of climate change, agriculture, food and nutrition security
NGOs	Support implementation of interventions
DFID	Support climate resilience through the International Climate Fund
European Union	Global Climate Change Alliance Programme
GIZ/KfW	Climate Finance Readiness Programme
Norway	Support to REDD+ and SAGCOT
UNDP/UNEP	UN-REDD and mainstream environment and climate change adaptation in implementation of national policies and development plans
USAID	Feed the Future - climate adaptation, agriculture, food and nutrition security
World Bank	Mainstream climate change in support for the second Agriculture Sector Development Programme and SAGCOT
FAO	CSA pilot study

## Further reading

- Climate Service Centre Germany. 2016. Climate-Fact-Sheet: Burundi – Malawi – Rwanda – Tanzania; updated version 2015. Hamburg: Author.
- FAO. 2017. Climate-Smart Agriculture Guideline for the United Republic of Tanzania: A country-driven response to climate change, food and nutrition insecurity
- The United Republic of Tanzania Ministry of Agriculture Food Security and Cooperatives. 2013. National Agriculture Policy. Dar es Salaam, Tanzania.
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- The United Republic of Tanzania. 2015b. Tanzania climate-smart agriculture programme 2015-2025. Dar es Salaam: Ministry of Agriculture Food Security and Cooperatives & VPO.

*The Info Note is part of a series of studies carried out to review policies and frameworks on climate change, agriculture, food and nutrition security across East Africa.*

**Dorothy A. Amwata** ([damwata@seku.ac.ke](mailto:damwata@seku.ac.ke)) is a Senior Lecturer, Department of Agricultural Sciences, South Eastern Kenya University.

**Madaka Tumbo** ([madaka.tumbo@gmail.com](mailto:madaka.tumbo@gmail.com)) is a Researcher and Lecturer at the Institute of Resource Assessment (IRA), University of Dar es Salaam (UDSM).

**Catherine Mungai** ([c.mungai@cgiar.org](mailto:c.mungai@cgiar.org)) is the Partnership and Policy Specialist of the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) East Africa.

**Maren Radeny** ([m.radeny@cgiar.org](mailto:m.radeny@cgiar.org)) is the Science Officer of the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) East Africa.

**Dawit Solomon** ([d.solomon@cgiar.org](mailto:d.solomon@cgiar.org)) is the Regional Program Leader of the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) East Africa.

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