

# Briefing Paper

## Climate, Food, Trade Nexus: Addressing the Need for Policy Coherence in the EAC

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### Summary

This briefing paper presents the linkages existing between climate change, food security and trade in the East African Community. The paper outlines a number of sectoral policy incoherence within Partner States; and as a result argues that sectoral policies on these issues ought to be harmonised and brought to coherence for a holistic response to climate change.

### Introduction

#### State of Food Security in the EAC

Agriculture is the dominant sector in all the five Partner States with a significant share in GDP of about 26 percent to 35 percent. The sector also provides employment opportunity for an estimated 60 percent to 90 percent of the total population of the region; and it is an important source of foreign exchange earnings. Notwithstanding the region's huge agricultural potential, food insecurity is a major problem in the EAC region.

The Food and Agriculture Organisation (FAO) uses four pillars as measurement of food security, viz., availability of sufficient food; existence of social and economic accessibility of food; utilisation of safe and

nutritious food; and stability for all people at all times. According to FAO data, food availability measured through the average value of food production for the period 2005 - 2010 has been declining in Burundi and Uganda. In terms of food accessibility within the region, Burundi has the highest depth of food deficit remotely followed by Tanzania and Rwanda. Again, Burundi has the highest prevalence of food inadequacy at about 78 percent for the year 2012; while the rest of the countries' food inadequacy is estimated from 36 percent to 40 percent. All of the five countries depend on rain fed agriculture. FAO data for the year 2010 on the percentage of arable land equipped for irrigation, used as one of the indicators of stability of food supply, shows the highest average percentage of total arable land equipped for irrigation was estimated at 2.5 percent for Burundi, followed by Kenya at 1.9 percent,

Tanzania at 1.6 percent; Uganda at 0.9 percent; and Rwanda a mere 0.15 percent. To put it in perspective, for the same period, countries like Egypt had 100 percent of arable land equipped for irrigation; Israel close to 75 percent and China close to 60 percent.

### State of Trade in the EAC

Export items of EAC countries are predominantly agriculture while imports are commonly industrial supplies such as capital goods. In general agricultural exports from EAC region are dominated by coffee, tobacco (unmanufactured), tea, sugar, cotton, sesame seed, maize and fresh vegetables. Burundi, Rwanda, Uganda and Tanzania derive the highest earning from export of coffee (green) while Kenya from tea followed by coffee exports.

global greenhouse gases, as compared to selected carbon-intensive economies. Ironically, the region is one of the most vulnerable to climate change effects due to its geographical location; level of development where the countries lack financial and human resources to handle extreme weather conditions; dependence on climate-sensitive livelihoods such as rain fed agriculture, livestock and fisheries; and weak institutions.

Incidences of extreme weather in the region manifest through frequent and intensive droughts and floods as shown in Table 2 below. These natural disasters often lead to loss of life, livelihoods and infrastructure, leading to heavy social and economic losses.

**Table 1 Trade Profiles of EAC Countries, 2012**

EAC Country	Share in world total exports	Share in world total imports	Agricultural products (% of total Trade)		Fuels and mining products (% of total Trade)		Manufactures (% of total Trade)		Main Destination	Main Origin
			Exports	Imports	Exports	Imports	Exports	Imports		
Burundi	0.00	0.00	67.2	15.1	9.9	2.8	22.1	81.6	UAE, EU27, Tanzania, Japan, Rwanda	EU27, Saudi Arabia, China, India, Tanzania
Kenya	0.03	0.09	52.7	13.5	6.6	26	36	58.7	EU27, Uganda, Tanzania, USA, UAE	EU27, China, UAE, India, South Africa
Rwanda	0.00	0.01	41.2	13.2	32.4	12.1	5.2	49	Tanzania, DR Congo, Kenya, Uganda, Sudan	EU27, Uganda, China, India, Kenya
Tanzania	0.03	0.06	24.2	11.7	16.7	32.1	16.4	54.1	South Africa, Switzerland, EU27, China, India	Switzerland, EU27, China, UAE, South Africa
Uganda	0.01	0.03	52.4	11.9	7.7	23.7	34.1	60.4	EU27, Sudan, Kenya, DR Congo, Rwanda	India, China, EU27, Kenya, UAE

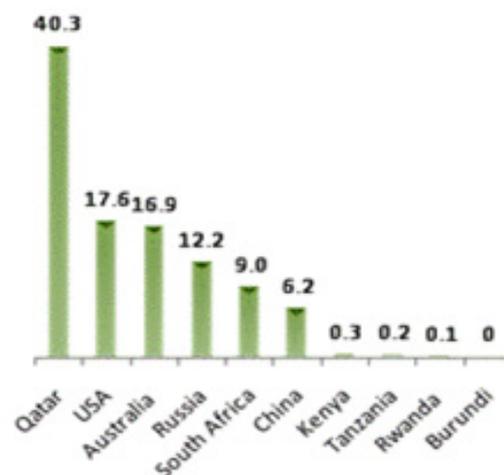
Compiled from WTO Stat, Country Profiles

As indicated in Table 1, all of the five countries have insignificant share in world trade. For the year analyzed, all EAC countries, except Tanzania, use EAC market as one of their main export destinations and import origins.

### State of Climate Change in the EAC

Climate change is a reality in East African region. The EAC countries have been experiencing frequency of extreme weather events such as droughts and floods, the brunt of which are mainly borne by rural and poor urban population. As indicated in Figure 1 below, individual EAC countries' level of carbon emissions is very low, and so indeed is their contribution to the

**Figure 1: CO2 Emissions per capita in metric tones**



Data source: World Development Indicators, 2010

**Table 2: Natural Disasters in EAC Countries (1990-2014)**

Country	Natural Disasters in EAC Countries (1990-2014)								
	Drought			General flood			Tsunami		
	No. of events	Killed	Total Affected	No. of events	Killed	Total Affected	No. Of events	Killed	Damage (000 US\$)
<b>Burundi</b>	126	3,062,500	-	12	110	66,237	-	-	-
<b>Kenya</b>	13	196	47,200,000	14	267	1,041,945	1	1	100,000
<b>Rwanda</b>	6	237	4,156,545	9	168	82,308			
<b>Uganda</b>	9	194	4,975,000	14	267	1,041,945	-	-	-
<b>Tanzania</b>	10	-	12,737,483	20	414	382,347	1	10	-

*Compiled from EM-DAT: The OFDA/CRED International Disaster Database*

## Context

### Food Security and Trade

As indicated in Table 1, the share of agricultural product exports in total trade are significant for EAC countries. Despite huge potential, the region suffers from frequent food shortages and imports of food are fairly common attributed mainly to inadequate food trade often due to poor market infrastructure within the region.

### Food Security and Climate Change

Faltering food production is closely linked to unpredictable climate patterns due to great dependence on rainfall and limited irrigation practices in the region. Though the effect of climate change is not always negative, as certain dry lands may get adequate rainfall, it has been found generally to be negative for the EAC region as it increases the vulnerability of small holder farmers and livestock producers to floods and droughts leading to loss of human and animal lives and livelihoods. According to the CGIAR Research programme on Climate Change, Agriculture and Food Security (CCAFS), the increasing frequency and severity of drought, heat, cold stress and floods are likely to lead to food crisis in the East Africa region; further to be exacerbated by rapid population growth rates, poverty and inequality.

### Climate Change and Trade

Extreme weather events affect production and export earnings as well as disrupt trade logistics. The 1997/98 El Niño that hit the region severely resulted in not only death tolls in thousands due to drowning and vector-borne diseases but also washed away roads and bridges and disrupted economic activities. The eight months long rain during the 1997/1998 El-Niño destroyed bridges and roads in Kenya bringing road transit between the port of Mombasa and Nairobi to a standstill for several weeks (Kandji and Verchot) disrupting trade within the region as Mombasa was the gateway to the EAC. As documented in the EAC Climate Change Master Plan (2011-2031), the north-west, west and south fertile parts of Tanzania are often cut off from the export outlets during the rainy season.

Conversely, the effect of trade on climate change is also evident for the region. According to a study by CUTS (2013), increase in maize trade and upland rice production in Uganda and increase in log, lumber and charcoal exports in Tanzania have contributed hugely to deforestation and soil erosion.

### Climate Change, Food Security and Trade

Climate change tends to alter agriculture production and trade patterns. Indeed, by virtue of the fact that EAC countries rely on climate-sensitive agriculture exports, any extreme weather event has direct and adverse effect on their trade balance. The EAC Food Security Action Plan 2011-2015 cites two critical factors for food insecurity in the region,

viz., inadequate food trade and high variability of weather worsened by climate change.

## Policy Coherence in the EAC

Given the above indisputable interface, sectoral policies of agriculture, environment and trade ought to be harmonised and brought to coherence for a holistic response to climate change. A synthesis report on policy coherence on climate, trade and food security for the EAC region by CUTS International (2013) establishes that the main challenge at the policy level remains incoherence where responsibilities are spread across various ministry lines despite climate change being a cross cutting issue in most of these

sectors. Similarly, a study by Heinrich Böll Stiftung (2013) finds while Kenya's Agricultural Act and the Forest Act show the country's commitment to agro-forestry, coordination and management of strategic activities were found to be fragmented between the Ministry of Agriculture, Ministry of Forest and Wildlife, county governments, community's and the National Environment Management Authority.

## Evidences from EAC Countries

According to CUTS' regional study conducted in all the five Partner States, evidences indicate that policies are in place but synergies and coherence are needed to address the inter-linkages of climate, trade and food security issues.

**Table 3: Policy Incoherence in the EAC**

EAC Country	Main Policy Coherence Challenge	Recommendation
Burundi	<p>Lack of a well-coordinated institutional framework often resulting in conflicting strategies</p> <ul style="list-style-type: none"> <li>• Climate change, trade and food security issues are handled by different institutions</li> <li>• Lack of implementation of agreed strategies mostly due to lack of resources</li> <li>• Ineffective National Environment Commission (NEC) composed of several line ministries including agriculture, environment, finance, education, interior and security</li> </ul>	<p>Transfer the mandate of NEC to a permanent Technical Commission on Food Security, Climate Change and Trade for holistic policy design and implementation.</p>
Kenya	<p>Duplication of efforts by so many players including: the Ministry of Environment; several government parastatals and departments; international Non-Governmental Organisations (NGOs), United Nations and related bodies and development partners and regional NGOs; national NGOs, civil societies and community based organisations; the private sector; and research and academic institutions</p>	<ul style="list-style-type: none"> <li>• Establish a mechanism that coordinates climate change activities in the country;</li> <li>• Need for a joint secretariat of the three Ministries of Agriculture, Environment and Trade to continuously discuss, address, disseminate and implement issues arising from the three intertwined human concerns.</li> </ul>
Rwanda	<p>Climate change strategy already in place but implementation not aligned to mainstreaming climate change adaptation and mitigation in key sectors and activities of stakeholders</p>	<ul style="list-style-type: none"> <li>• Need for trade policy to mainstream measures that maximise opportunities and minimise costs arising from the interface between trade, environment and sustainable development;</li> <li>• Need for integrating food security, nutrition and disaster management programmes with the national poverty reduction programme to create a vulnerability reduction strategy</li> </ul>
Tanzania	<ul style="list-style-type: none"> <li>• Disconnect between the country's trade policy and climate change issues</li> <li>• Structural weakness in policy and institutional landscape negatively impacting the efficiency of measures taken to address climate change challenges</li> </ul>	<ul style="list-style-type: none"> <li>• To address issues of climate change effectively, trade and investment opportunities need to be channelled towards innovations and technologies that are environmental-friendly;</li> <li>• Establish a coordination mechanism or a workable institutional arrangement to enable agricultural, climate change and trade stakeholders have a common language, agenda, strategy and plan of action.</li> </ul>

Uganda	Policies in place do not recognise the intricate inter-linkages of climate, trade and food security	<ul style="list-style-type: none"> <li>• The National Development Plan should provide for a clear framework that strengthens the inter-linkages between the three issues and inter-institutional coordination mechanisms that support its implementation;</li> <li>• Relevant ministries and sectors should put in place appropriate mechanisms that address the implementation of the inter-linkages.</li> </ul>
Regional Level	Notwithstanding that climate change, food security and trade policies, strategies and action plans are all in place at the Secretariat level, they are not designed to address the linkages holistically	<ul style="list-style-type: none"> <li>• Harmonise and integrate the regional policies within individual Member Countries' national policies and action plans for their effective implementation;</li> <li>• Need for Member states to develop a joint framework and implementation strategy;</li> <li>• Avoid inward looking policies at national level to solve the region's food security problem;</li> <li>• Ensure all responsible institutions in all countries are well coordinated and information sharing is strong.</li> </ul>

Compiled from CUTS International five studies, 'Climate, Food, Trade: Where is the Nexus? (2013)' and regional synthesis report, 'Climate, Food, Trade: Where Is The Policy Nexus? Lessons from the East African Community (2013).

## Conclusion

Climate change undoubtedly contributes to EAC region's food insecurity and trade deficit problems. Trade can be used as an important tool to encounter the effects of climate change on food security through improved distribution and exchange of food; as well as to encounter the effects of climate change on agriculture production and productivity through improved access to mitigation and adaptation techniques. The intricate interface of climate, trade

and food security calls for sectoral policy coherence and coordination in order to dispense priority actions. Policy makers, therefore, need to recognise the nexus between climate, trade and food security and formulate holistic policies to respond to climate change challenges in the region.

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