Country Update

Leveraging UNFCCC Agriculture Support Mechanisms to Tackle Climate Change

Provided by

Economic and Social Research Foundation (ESRF)
www.esrftz.org

Introduction

Agricultural sector in Tanzania is vital to the success of the economy, accounting for 25% of GDP and 24% of exports. Nearly 75-80% of Tanzanians earn their living through smallholder agriculture, making it important to mainstream climate change adaptation measures within agricultural development strategies.

The average annual temperature in Tanzania has increased by 1.0ºC since 1960 and is projected to increase by 1.0ºC to 2.7ºC by the 2060s. In the last 40 years Tanzania has experienced severe and recurring droughts with devastating effects to water and energy and most importantly the agricultural sector. Currently, more than 70% of all natural disasters in Tanzania are climate change related and are linked to recurrent droughts and floods.

As a response to challenges related to climate change, Tanzania has adopted and implements various policies, legislations, strategies, plans and programs in the course of addressing climate change. Some of these are: the National Communications (2003 and 2015); the National Adaptation Program of Action (2007); Natural Gas Policy (2013); the Zanzibar Environmental Policy (2014); the Renewable Energy Strategy (2014); the Natural Gas Act (2015); the National Forestry Policy 2 (1998); the National Transport Master Plan (2013); the National Environmental Policy (1997); the Zanzibar Environmental Policy (2013); the National Environmental Action Plan (2012 – 2017); the National REDD+ Strategy and Action Plan (2013) and the National Environment Management Act (2004).

During the last UNFCCC Conference of Parties in Bonn (COP23) last November, the negotiators, including Tanzania, established a common ground that they are vulnerable to the negative effects of climate change in large part because they lack the domestic resources to support projects and innovations that would, for example, help stave off agricultural disasters or ease the transition to a clean energy economy. Therefore, they agreed to have the Subsidiary Body for Science and Technological Advice

(SBSTA) and the Subsidiary Body for Implementation (SBI) review issues associated with agriculture by using workshops and technical expert meetings.

This note sought to obtain the views of EAC farmers, including farmers' associations and agriculture experts, on the impacts of climate change on their operations, and if they are aware and use available international support mechanisms (especially from the UNFCCC) to face the challenges posed by climate change.

Views from famers' associations and agriculture experts were collected through phone calls and emailing questionnaires. In data presentation, quotes are used to illustrate respondents' views on climate change adaptation/mitigation at the enterprise level.

Impacts of Climate Change on the Agricultural Sector

Reduced crop yields to individual farmer and country wide:

One of the impacts reported by the interviewed farmer was reduction of crop yields. As this owner of tomato processing industry in Dar es Salaam explained, "*Ten years ago there was plenty tomatoes supplied by farmers from Morogoro, Njombe and Mbeya regions throughout the year but with climatic change these regions are increasingly reducing their supplies and one cannot even predict the supply pattern"*. These changes are solely attributed to seasonal changes in rainfall and temperature, which impact agro-climatic conditions, altering growing seasons, planting and harvesting calendars, water availability, pest, weed and disease populations[1].

Increased food insecurity and malnutrition:

Food insecurity in severely drought affected areas is reported to have increased dramatically, which in turn have diverse impacts on child health and nutrition. According to Food and Agriculture Organization (FAO) report on status of Nutrition Country Profile, food insecurity is the main driver of chronic under nutrition in Tanzania, which is responsible for more than 130 child deaths every day, making it the greatest contributor to under-five deaths in the country[2]. A nutritionist from the Ministry of Health explained *"These frequent weather shocks create a shortage in the food supply and negatively affect the nutritional status of weak and vulnerable populations including young children. For instance, the incidence of wasting, underweight, and stunting among less than five years old children has been increasing"*. Climate change rigorously reduces food supply as well as shrinks food security in the country.

Increased cost of production per unit area:

The cost of production in severely drought affected areas is reported to have increased dramatically, which in turn have diverse impacts on agricultural value chain including rising food prices, inadequate raw material supplies to agro processing industries. One mill owner explained, "*With climatic change one cannot have reliable stocks of maize in the mill, the price for maize has become so high and unmanageable for small mill owners, it is so expensive to manage an inventory during low seasons or when there are severe droughts. Moreover, when there inadequate supplies of maize in the market customers prefer to buy raw maize and grind on their own*".

[1] Anete and Amusa (2010). Challenges of Agricultural Adaptation to Climate Change in Nigeria: a Synthesis from the Literature. The Journal of Field Action Report Vol. 4

[2] FAO (2017) Nutrition Country Profile: http://www.fao.org/ag/agn/nutrition/tza_en.stm

Dealing with Climate Change

With climate change models in Tanzania predicting an increase in annual average temperatures, and less reliable rainfall with longer and hotter dry seasons, farmers are turning their attention to climate change adaptation measures. Moreover, the government of Tanzania has been in the forefront helping farmers against climate change challenges through raising awareness and supporting projects. Similarly, other stakeholders including International agencies have joined hand through project s and programs funded from GEF, IFAD, UNEP, GCF, UNDP etc. climate change adaption measures include:

Use of tolerant/resistant varieties (species) for drought and pest and disease:

A variety of drought resistant has been employed by farmers across the country as a response towards climate change challenges. A good example is the Drought Tolerant Maize for Africa (DTMA) project that was launched ten years ago under the Global Maize Program of the International Maize and Wheat Improvement Center (CIMMYT) to produce hybrids varieties which withstand drought while boosting yields. As noted from one of the production managers of Agro Seed Companies in northern Tanzania, *"Farmers are happy with three hybrid varieties— Meru HD 13, 15 and 405 — which have been approved by Tanzania Official Seed Certification Agency for commercial distribution."*

Also, one of the producers of these drought-tolerant-varieties commented that farmers are being involved at every level of research, inviting them to demonstration plots to get their views on what exactly the hybrid varieties should contain.

Growing new crops: Farmers in Tanzania have been trying to modulate negative impacts and shape the severity of climate impacts on crop yield and production by developing new crop varieties such as cassava, sorghum, millets, pepper etc. A farmer who just switched to cultivating black pepper explained that the plant can grow up to 33 feet in hot and humid tropical climates but it is now thriving at higher altitudes. It is hoped that more farmers will begin to grow the crop as a secure form of income generation. *"I have had two successful seasons growing this crop and will continue doing so as the demand for pepper is high"*, said the local farmer.

Engagement on other activities apart from Agriculture:

Agro-business dealers tend to engage in multiple businesses when profits margins for buying and processing crops from farmers are very low and unpredictable. As the food trader explained; *"I used to buy large quantities of grains from the southern agricultural regions, selling them profitably to markets in Kenya but with prolonged food shortages the governments banned food exports in 2014. I decided to refocus my attention toward diverse agribusiness ventures, particularly beekeeping. I first became involved in honey farming in 2014 through the Women's Beekeeping Initiative, a USAID-supported effort under Tanzania People and Wildlife. In no time, I was hanging 20 beehives, which I recently harvested for the first time. Together with other groups participating in the program, I sell my product locally as well as under the Mama Asali, or "Mama Honey," brand.*

However, farmers greatly depend on the eco-system for their livelihoods, which are increasingly becoming threatened due to climate change; so trying out drought tolerant, new crops or new ventures offer small solutions. Comments from one of the government officials in the country's Ministry of Agriculture indicated that the country needs more capacity building in agriculture research

as well as more capacity building to individual farmers so that they cope with climate change.

How UNFCCC Might Help EAC Farmers in Facing Climate Change

UNFCCC Support

Awareness on international support mechanisms:

Some of the interviewed experts mentioned the Least Developing Countries Adaptation Fund; a fund mechanism to support LDC in adaptation activities. However, most farmers are not aware of international mechanisms to mitigate climate change within the country.

Usage of mechanisms:

A significant majority of farmers are not involved in international support mechanisms / programmers that are established to help African countries mitigate climate change. UNFCCC's Clean Development Mechanism (CDM) is a good example that explains involvement of Tanzanian farmers in climate change mitigation agenda. In Tanzania, CDM projects have been undertaken mainly by foreign companies under the auspices of their mother countries; the reason being high transaction costs especially in the verification processes, which does not suit smallholder woodlot owners[3].

Needed support

Through joint programs to address farmer's climate change impacts:

It is recommended that government and other stakeholders (local and international) should team up and put educational programs tailored to meet the climatic information needs of farmers to enable them cope with the emerging challenges to enhance their production. To achieve this, the Tanzania Meteorological Agency should be well equipped to give accurate information about the weather. NGOs and other private partners should be fully involved in the education and sensitization of farmers on issues bordering climate change, causes and controls.

Through study tour among the famers across the regions:

It is crucial to avail extension services in order provide education on better agricultural practices, climate change, and environmental conservation. Support on micro financing was found critical with the establishment of credit facilities non-restrictive agricultural loans from banks.

Through capacity building of famers:

One expert from the Economic and Social Research Foundation suggested that it is crucial for Tanzania to invest in terms of financial resources and research on adaptation measures farmers could implement to cope with climatic changes especially in the agriculture sector. He argued, *"In recent years indigenous people have been recognized as powerful knowledge- holders on climate change and key actors for developing policy to cope with and adapt to its effect. Therefore using local persons is believed to lead to development of effective mitigation and adaptation strategies that are cost-effective,*

[3] Kalumbiza B. and Menne W. (2001). CDM carbon sink tree plantations in Africa: A case study in Tanzania. The Timberwatch Coalition (www.timberwatch.org): CDM Tree Plantations in Africa 96pp.

participatory and sustainable."

It is further recommended, that farmers be given more support from both local NGOs and the government in terms of trainings, information and knowledge sharing, and other fundamental resources that they need in their farming systems. The local knowledge should be integrated with scientific knowledge to improve reliability of weather forecasting which will help to trim down the effects of climate change on agricultural production

Recommendations

Provide agriculture negotiators skills of negotiation:

This note has identified two major hindrances to Tanzania's effectiveness at global climate change negotiations, particularly on agriculture: Lack of finances; and inconsistencies among the negotiators as they get recalled and replaced with others who are not familiar with negotiations. Regular trainings on the required skills for negotiations are very vital. It is important to have negotiators who are completely aware of the negotiation agenda and have the potential skills for negotiations.

Maintain regional position of agriculture aspects before SB 48:

As we are going towards the SB 48 negotiations on agriculture, our negotiators should understand the regional position with respect to climate change. One expert from the ministry of agriculture explained that *"Like most African countries, Tanzania has three common climate challenges including skills, finance and governance"*. Therefore, negotiators from Tanzania should maintain the crucial linkages of development and climate since they are key to current global climate conversations.

CUTS International, Geneva

CUTS International, Geneva is a non-profit NGO that catalyses the pro-trade, pro-equity voices of the Global South in international trade and development debates in Geneva. We and our sister CUTS organizations in India, Kenya, Zambia, Vietnam, and Ghana have made our footprints in the realm of economic governance across the developing world.

This country update note is authored by ESRF, Tanzania. CUTS' country updates aim to inform negotiators and policy makers about stakeholders' perspectives on the ground related to a particular issue. Readers are encouraged to quote or reproduce material from this paper for their own use, provided due acknowledgement of the source is made.

37-39, Rue de Vermont, 1202 Geneva, Switzerland
geneva@cuts.org ● www.cuts-geneva.org
Ph: +41 (0) 22 734 60 80 | Fax:+41 (0) 22 734 39 14 | Skype: cuts.grc

PROMOTING AGRICULTURE, CLIMATE AND TRADE LINKAGES IN THE EAST AFRICAN COMMUNITY – PHASE 2
The PACT EAC2 project builds capacities of East African stakeholders for climate-aware, trade-driven and food security-enhancing agro-processing in their region. Web: www.cuts-geneva.org/pacteac2

SWEDEN

The PACT EAC2 project is undertaken with funding support from the Swedish International Development Cooperation Agency (Sida).