

ILLUMINATING THE NEED TO INTEGRATE POVERTY ERADICATION IN IMPLEMENTATION OF THE NATIONALLY DETERMINED CONTRIBUTIONS (NDCs) IN EAST AFRICA (KENYA, TANZANIA AND UGANDA)

Policy Brief , February 2018

Key Messages

- More than 40 percent of the population in East Africa is living in poverty with income per person of below 1.9 USD per day.
- By 2030, climate change will shift more than 100 million more people into poverty, with farming communities in sub-Saharan Africa being among the hardest hit.
- Poverty eradication is only possible if pervasive inequalities in incomes and economic opportunities within the East African Community (EAC) region are addressed, between rural and urban areas, and between men and women.
- Some of the prioritized sectors and climate actions in the Nationally Determined Contributions (NDCs) for Tanzania, Kenya and Uganda have potential elements for poverty reduction but specific targets aimed to shift people out of poverty are missing.
- Effective NDCs in East Africa should integrate climate and poverty eradication solutions in sectors with high impact to poverty and emission reduction such as agriculture, energy, forestry, and livestock.
- Incorporation of effective pro-poor climate actions into national policies, strategies and plans will enhance implementation of NDCs. However some mechanisms should be in place to protect and ensure poor and marginalized groups will benefit from these actions.
- Integrating poverty in the NDCs requires renewed political will and commitment from the EAC Partner states.

1.0 Background

Africa is highlighted as the most vulnerable continent to the adverse impacts of climate change. This is because the economies of the African countries, including the East African Community (EAC) Partner states are generally dependent on natural resources and climate. They are characterized by high poverty levels coupled with low adaptive capacities. According to EAC (2017) report, 2.8 percent of EAC population is affected by hazards (for example Tanzania earthquakes happened in 2017, Uganda landslide in 2012, Kenya drought in 2005). Recent analysis finds that climate change could push more than 100 million more people into poverty mostly in Africa by 2030 (World Bank, 2016).

Poverty and climate change are among the most pressing challenges globally. The Paris Agreement set the goal to hold the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels (UNFCCC, 2015). It is this goal that the international community has committed to, in order to address climate change. At the national level countries have determined what actions they are willing and able to take to achieve this goal, and communicate this through their Nationally Determined Contributions (NDCs)¹, including open discussions through the Talanoa Dialogue², to raise their ambitions. The Paris Agreement puts climate action, not as a potential barrier, but as a vehicle towards achieving the Sustainable Development Goals and specifically to eradicate poverty (SDGs 1).

The focus of the policy brief is to reveal missing links of integrating poverty eradication in the adjustment and implementation of the NDCs of Tanzania, Uganda and Kenya. The brief also suggests possible measures for the EAC Partner States improvement so as to achieve their national climate targets as well encourage to enhance the ambitions, given that collective mitigation pledges still fall short of meeting the Paris Agreement goal.

1.1 Poverty Status in EAC Region

The total population and annual population growth rate in the EAC region is about 160 million and 2.6 %, respectively (EAC, 2017). Per capita Gross Domestic Product (GDP) is relatively low in all EAC partner states. In 2017, the average per capita GDP in the region was USD 919. Poverty is widespread across the region and more prevalent in rural areas. Income per person of more than 40 percent of the population in the region is below 1.9 USD per day (World Bank, 2017).

2.0 Climate Change and Poverty Nexus in Agriculture and Energy Sectors in EAC Region

Adverse impacts of climate change are threatening development and frustrate poverty eradication efforts in the Partner States. The assessment of the missing links on integration of poverty eradication in the NDCs of Tanzania, Kenya and Uganda is based on the agriculture and energy sector due to their high potential

to uplift the majority of the rural populations out of poverty. These sectors also have high potential to transform the EAC economy into low emission development. According to the national GHG inventories reported in latest National Communications, Agriculture, Forestry and Other Land Use sector represented the most significant share of net emissions in the region (67 percent), followed by the Energy (20 percent).

2.1 Agriculture Sector

In Eastern Africa, agriculture sector is dominated by small scale farmers and is the main source of livelihood in rural areas. It drives the rural economy, accounting for approximately 25 percent of GDP (World Bank, 2017), 70 percent of employment and five billion USD in food export revenues every year (FAO, 2017). The sector is highly exposed to climate change as farming and livestock activities directly depend on climatic conditions. The majority of agricultural activity in

1. Nationally Determined Contributions (NDCs) are at the heart of the Paris Agreement and the achievement of these long-term goals. NDCs embody efforts by each country to reduce national emissions and adapt to the impacts of climate change.

2. Talanoa Dialogue is a traditional word used in Fiji and across the Pacific to reflect a process of inclusive, participatory and transparent dialogue, in which people listen to each other, respect each other's perspectives and seek solutions that benefit everyone. The Paris Agreement provides for progress assessments ("stocktakes") every five years in order to ensure that Parties turn commitment into action and that they continue to regularly increase their ambition. This process begins in 2018 with the Talanoa Dialogue (TD2018).

the region is rain-fed, and therefore, susceptible to weather fluctuations. Over the last three decades the frequency of droughts and floods in East Africa have increased (for example, the 2016-2017 drought experienced in Kenya), resulting in crop failures and loss of livestock (EAC, 2017).

Furthermore, with increasing soil erosion, nutrient depletion and land degradation, land resilience has been reduced and the effects of drought and floods exacerbated. The combination of deforestation due to croplands open, the extension of agriculture onto land with low potential, and the use of more basic farming techniques and



technologies due to cost and capacity barriers, make the current agricultural system unsustainable in the long term. Other constraints are related to gender disparities including unequal access to land. Furthermore in this region, large quantities of agricultural commodities produced by farmers tend to perish un-marketed as smallholder farmers lack technology for processing and preservation. In addition, irrigation facilities remain inferior and inaccessible to the poor. Poverty levels are high particularly in the rural areas due to poor performance of the agriculture sector. The combination of high rates of poverty and climate exposure makes the region highly susceptible to food insecurity.

2.1.1 Adaptation and Mitigation Measures in the Agriculture Sector

Agriculture is a priority sector for adaptation in all NDCs of the three countries. All the three countries aim to increase agricultural production and productivity, as well as create sustainable production systems and improve market for farm products (see Table 1). In summary, the proposed priority adaptation³ and mitigation⁴ measures for the crop and livestock sectors in the NDCs of the three countries include improving land and water management, expanding information and early warning systems, expanding Climate-Smart Agriculture (CSA), diversification of crops and livestock, strengthening extension services, expanding value addition and post-harvest handling, improving access to market and microfinances, expanding research, rangeland management and promotion of crop insurance. Crop pests and diseases are expected to increase as a result of regional warming due to climate change. Partner states should improve measures to overcome pests and diseases in next review of NDCs.

CSA seems to be a priority intervention to NDCs of all the three countries. CSA has the potential to increase sustainable productivity, increase the resilience of farming systems to climate impacts and mitigate climate change through greenhouse gas emission reductions and carbon sequestration. For smallholder farmers in East Africa, the opportunities for greater food security and increased income together with greater resilience will be more important to adopting CSA. Often, food-insecure, resource-poor, smallholder farmers in EAC partner state cannot afford to make a long-term investment required for many climate-smart agriculture practices, while market and institutional environments are not conducive.

The agriculture sector NDCs in EAC should focus on improving livelihoods and income so that there is incentive for smallholder farmers to invest in CSA. Climate actions should also consider combining practices that deliver short-term benefits with those that give longer-term benefits to help reduce opportunity costs and provide greater incentives to smallholder farmers to invest in better management practices. Existing production and market systems should be modified to facilitate equitable access for smallholders to the technologies and financial resources they need to reduce vulnerability and risk.

Table 1: Uganda, Kenya NDCs and Tanzania INDCs: Priority Adaptation and Mitigation Actions in Agriculture Sector

Country	Adaptation	Mitigation
Uganda	<ul style="list-style-type: none"> a) Expanding extension services b) Expanding climate information and early warning systems c) Expanding Climate Smart Agriculture (CSA) d) Expanding diversification of crops and livestock e) Expanding value addition, post-harvest handling and storage and access to markets, including micro-finances f) Expanding rangeland management g) Expanding small scale water infrastructure h) Expanding research on climate resilient crops and animal breeds i) Extend electricity to the rural areas or expanding the use of off-grid solar system to support value addition and irrigation. 	<ul style="list-style-type: none"> a) Climate Smart Agriculture techniques for cropping (Agricultural soils: 36% of national GHG emissions (13.5 Million tons of carbon dioxide equivalent per year (MtCO₂eq/year) in 2000)b) b) Livestock breeding research and manure management practices (Enteric fermentation: 19% of national GHG emissions (7 Million tons of carbon dioxide equivalent per year (MtCO₂eq/year)) in 2000. Projected to increase by 4 times by 2030)
Kenya	<ul style="list-style-type: none"> a) Enhance the resilience of the agriculture, livestock and fisheries value chains by promoting climate smart agriculture and livestock development. 	<ul style="list-style-type: none"> a) Climate smart agriculture (CSA) in line with the National CSA Framework.
Tanzania	<ul style="list-style-type: none"> a) Up-scaling the level of improvement of agricultural land and water management. b) Increasing yields through inter alia climate smart agriculture. c) Protecting smallholder farmers against climate related shocks, including through crop insurance. d) Strengthening the capacity of Agricultural research institutions to conduct basic and applied research. e) Strengthening knowledge, extension services and agricultural infrastructures to target climate actions. 	

3. Adaptation refers to the adjustments that societies or ecosystems make to limit the negative effects of climate change or to take advantage of opportunities provided by a changing climate e.g. planting more drought-resistant crops.

4. Mitigation refers to efforts to reduce or prevent emission of greenhouse gases e.g. shifting from fossil fuels to renewable energies

2.2 Energy Sector: Access for the Poor

Access to modern energy services is a critical human development priority. It plays a major role in achieving other global imperatives, such as gender equality, economic empowerment, improved health status, water and food security. In EAC partner's states large share of the population depends on traditional biomass for cooking and heating. Currently electricity is contributing less than 10% to the region's energy balance and is based primarily on hydropower generation (REN21,2016) which is becoming increasingly vulnerable to climate change. On average, traditional biomass accounts for approximately 80% of final energy consumption in Tanzania, Kenya and Uganda. The share of the population using woodfuels for cooking is more than 95% in EAC partner states except Kenya, where it is 84% (ibid). Many households in the region practice "fuel stacking", which involves combining woodfuels with kerosene or Liquefied Petroleum Gas (LPG).

The high reliance on biomass in the EAC energy sector has a negative impact on both the environment and people's health. The unsustainable harvesting of woody biomass contributes to forest depletion, disruption of ecosystems and hydrological catchment areas as well as to CO₂ emissions. In 2012, indoor air pollution caused by the burning of biomass affected the health of an estimated 138 million people in the region, resulting in 60,000 premature deaths (ibid).

2.2.1 Adaptation and Mitigation Measures in the Energy Sector

Under the energy sector all the three countries aim to increase resilience of the current energy systems while transforming the sector to low emission (See Table 2 below). In summary the proposed priority adaptation and mitigation measures in the energy sectors which cut across the three countries NDCs include expanding renewable energy, enhancing energy efficiency, promotion of clean energy options and technologies.

In all NDCs of the three countries, most of the proposed actions focus on strengthening the electricity sub sector. In addition, countries plan to expand coal power plants in particularly Kenya and Tanzania. Actions which appear

like addressing challenges related to inefficient use of woodfuel are very general except for Uganda. Fuel switch is the main focus of the government on addressing wood-fuel challenges. For example, the action on "expanding the use of natural gas for power production, cooking, transport and thermal services through improvement of natural gas supply systems throughout the coun-



try" (Tanzania INDCs); action to "promote clean energy technologies to reduce overreliance on wood fuels" (Kenya NDCs) and the action to "develop the electricity sector to offsetting emission due to wood and charcoal burning" (Uganda NDCs). The energy needs of the people living in energy poverty; mostly in rural areas are quite different from what conventional energy systems are set to deliver. Big energy from big infrastructure often does not prioritize energy needs for poor people because it rarely makes economic sense for utilities to connect poor families. At present, the promoted energy options are too expensive, inaccessible and unreliable for the majority of households especially the poor. Various studies have indicated that poor households generally spend more money buying, or more time collecting, each unit of energy they consume compared to wealthier households. Prioritizing a solution that may only be achievable in many years to come leaves a policy vacuum around the present situation.

Table 2: Uganda, Kenya NDCs and Tanzania INDCs: Priority Adaptation and Mitigation Actions in the Energy Sector

Country	Adaptation	Mitigation
Uganda	<ul style="list-style-type: none"> a) Increasing the efficiency in the use of biomass in the traditional energy sector b) Promoting renewable energy and other energy sources c) Increasing the efficiency in the modern energy sector, mainly of electricity d) Ensuring the best use of hydropower by careful management of the water resources e) Climate proofing investments in electricity power sector 	<ul style="list-style-type: none"> a) Construction of enabling infrastructure for electricity sector development, including power lines, substations and transmission facilities. b) (Development of the electricity sector holds great mitigation potential for Uganda due to the potential offsetting of wood and charcoal burning, and the consequential deforestation) c) Achieve a total of at least 3,200 Mega Watts renewable electricity generation capacity by 2030, up from 729 Mega Watts in 2013. d) Sustainable energy solutions in public buildings: <ul style="list-style-type: none"> - Energy efficiency in hospitals - National Appropriate Mitigation Action for Integrated Sustainable Energy Solutions for Schools in off-grid areas e) Promotion and wider uptake of energy efficient cooking stoves or induction cookers (Residential biomass burning: ~30 MtCO₂e in 2000) f) Promotion and wider solar uptake of solar energy systems. g) Development and enforcement of building codes for energy efficient construction and renovation.
Kenya	Increase the resilience of current and future energy systems.	<ul style="list-style-type: none"> a) Scaling up geothermal, solar and wind energy production, other renewables and clean energy options. b) Enhancement of Energy and resource efficiency across the different sectors. c) Clean energy technologies to reduce overreliance on wood fuels.
Tanzania	<ul style="list-style-type: none"> a) Exploring and investing in energy diversification system. b) Promoting use of energy efficient technologies and behaviour. c) Enhancing integrated basin catchment and upstream land management for hydro sources. d) Enhancing the use of renewable energy potential across the country (hydro, solar, wind, biomass and geothermal). 	<ul style="list-style-type: none"> a) Exploring and investing in the energy diversification system to ensure overall energy security for economic development through enhanced availability, affordability and reliability while contributing towards energy emissions intensity reduction over time. b) Promotion of clean technologies for power generation; and diverse renewable sources such as geothermal, wind, solar and renewable biomass. c) Expanding the use of natural gas for power production, cooking, transport and thermal services through improvement of natural gas supply systems throughout the country. d) Promoting energy efficient technologies for supply, transmission/transportation and demand side as well as behavioral change in energy use. e) Promoting rural electrification.



3.0 Possible Measures to Integrate Poverty Reduction in NDCs of EAC Partner States

In order to integrate poverty reduction in implementation of NDCs of EAC partner states the following measures could be undertaken:

The East Africa Community Secretariat and Institutions

- EAC should push for prioritization of pro poor adaptation and mitigation actions in NDCs of the partner states
- EAC should ensure clear alignment between Partner climate change policies and poverty reduction strategies while reviewing the EAC's Regional Climate Change Policy (2011), Climate Change Strategy (2011/12-2015/16) and Climate Change Master Plan (2013-2033) to mainstream the Paris Agreement commitments.

EAC Partner States

- The relevant climate change ministries and department should ensure that actions of sector ministries that are integrated into national development plans, recognize the needs of vulnerable and poor groups.
- The relevant climate change ministries and department should set specific targets and monitoring indicators to ensure the poor and marginalized are benefiting while developing and implementing the climate action plans (NDCs).
- The relevant ministries and department should take into account existing safeguards to address social exclusions and inequalities in order to guarantee existence of the poor and marginalized communities to cope with global warming and its effect.
- The relevant climate change ministries and department should undertake specific efforts to ensure wider participation of the poor and their representatives in the implementation of the NDCs and their reviews.

Civil Society Organizations (CSOs)

- Document and share regularly the information and lessons related to NDCs and poverty eradication through publications, media, documentary, etc.
- Mobilize citizens and citizen groups to regularly generate information and ideas for contribution to raise the ambition of the NDCs by highlighting the need to address poverty that affects millions.
- Play a role in the promotion of local technologies that have been adopted by communities in the energy and agriculture sectors, in order to attract support for pro-poor technologies from EAC governments and the private sector

Private Sectors

- Should abide by and provide support to implementation of regional and national climate laws and regulations established to guide the gradual implementation of NDCs.
- Should work collaboratively with national governments in creating subsidies for energy and agricultural technologies thus enabling access by the rural and urban poor

Development Partners

- Should ensure that development cooperation support for the implementation of NDCs in East Africa is sensitive to addressing poverty.
- Support CSO and other subnational platforms that can generate information and ideas to raise the ambition of NDCs in in East Africa.

Conclusion

Despite the different local and international efforts, poverty remains world's biggest challenge. Fighting climate change and achieving sustainable development in the East Africa region will not be possible if poverty eradication is not integrated in climate policies. Designing and implementation of climate policies such as NDCs should put poor people at the centre. The SDGs and the Paris Agreement together offer opportunity to create climate compatible development and avoid dangerous levels of GHGs and eradicate poverty. Sustainable development will need to be inclusive and take special care of the needs of the poorest and most vulnerable. Therefore, the task ahead the EAC partners' state is to improve their NDCs by integrating poverty eradication into climate change actions.

Authors



Contacts

TaTEDO-Centre for Sustainable Energy Services
P. O. Box 32794, Dar es Salaam, Tanzania
Tel: +255-738-201498
Email: energy@tatedo.org

SusWatch, Kenya
P. O. Box 1207-00100, Nairobi, Kenya
Tel: +254-20-2584757
Email: suswatchkenya@suswatchkenya.org

Uganda Coalition for Sustainable Development -Rio and Beyond
P. O. Box 27551, Kampala Uganda
Tel: +256-414-269461
Email: ugandacoalition@infocom.co.ug

SustainableEnergy
Klosterport. 4E, I.sal, DK-8000, Aarhus C
Tel: +45-86-760444

International Network for Sustainable Energy (INFORSE)
Klosterport. 4E, I.sal, DK-8000, Aarhus C
Tel: +45-24-260033
Email: ove@inforse.org

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