Towards Harmonisation of the East African Community (EAC) Climate Change Policies, Laws and Institutions

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1. Introduction

This paper has two main objectives: i) to analyse the policy and legal frameworks on climate change both at the EAC regional and member States level, and determine the extent to which they are harmonised; ii) to identify implications for the private sector in the context of the emerging legal and policy framework on climate change. In order to demonstrate the extent to which the EAC climate change policy is harmonised with climate change policies of the member States, I will narrow down the analysis to energy policies. In summary, the paper will consider how the energy sector in the context of mitigation is addressed in the EAC climate change policy, and then analyse how the different member States have dealt with the energy sector in the context of mitigation in their national climate change policies.

East Africa is one of the fastest growing economic regions in the world[1]. The region is witnessing increased energy demand partly due to economic and rapid population growth[2]. At the same time there is potential for exploiting renewable energy resources as well as the development of clean energy. In 2010 only 37% of the population in East Africa had access to electricity[3]. This means that are immense opportunities for placing the region on a low-carbon development pathway. Regional governments are taking steps to ensure increased electricity penetration. In 2005, the East African Power Pool (EAPP)[4] was established with the ambition of pooling the countries' energy resources to satisfy increasing electricity demand[5]. In addition, the EAPP plans to establish a regional electricity market by coordinating a power exchange among its countries' power utilities[6]. In the run up to the adoption of the Paris Agreement in 2015, EAC Member States submitted various individual mitigation goals through their Intended Nationally Determined Contributions (INDCs).

Article 126 (2)(b) of the *EAC Treaty, 1999* provides that "Partner States shall through their appropriate national institutions take all necessary steps to harmonise all their national laws appertaining to the Community". Harmonisation of national laws is one of the critical steps required to facilitate regional integration[7]. In pursuance of this objective, the Council of Ministers established a Sub-Committee on the Approximation of national Laws to spearhead the process of harmonisation of national laws in the EAC context[8]. In light of the above Treaty obligations as well as the work already undertaken to comply with the Treaty, it is important that the emerging policy and legal framework on climate change within individual member States be harmonised with the EAC regional policy on climate change.

2. Analysis of climate change mitigation policies at EAC regional and member States' level

2.1 EAC regional level climate change mitigation policies on the energy sector

Mitigation is one of the key priorities addressed by the *EAC Climate Change Policy, 2011*. The policy begins with an acknowledgement of the negligible contribution of the EAC region to global greenhouse gas emissions. Despite this, the policy adopts the position that EAC member States still have a contribution to make towards mitigation

[1] See Kammen., et al, 2015. A Clean Energy Vision for East Africa Planning for Sustainability, Reducing Climate Risks and Increasing Energy Access, p.3
[2] Ibid
[3] IRENA, 2015. Analysis of Infrastructure for Renewable Power in Eastern and Southern Africa, p.1
[4] It should be noted that the EAPP includes members such as Ethiopia and Democratic Republic of Congo who are not necessarily members of the East African Community
[5] Supra, note 1, p.7
[6] Ibid
[7] See http://www.awepa.org/news/harmonisining-the-national-laws-in-the-east-african-community/
[8] Ibid

(especially in forestry, energy, industry, transport, waste management and agricultural sectors) subject to developed countries providing financial, technological and capacity building support.

The policy sets out the objective of member States on the energy sector which is to 'increase availability and access to sustainable, reliable and affordable renewable energy sources' with each member State having an obligation to undertake the following four measures: i) scale up investment in renewable energy technologies to provide access to affordable cleaner energy as well as improving efficiency in use of biomass energy especially for rural communities; ii) develop appropriate alternative energy sources, policies and measures to increase energy efficiency; iii) devise a precautionary approach to the development of bio-fuels for mitigation and energy in view of food security issues; and iv) improve energy efficiency and promote clean energy technologies including; hydropower, solar and wind.

2.2 Uganda's policy approach to climate change mitigation (energy sector)

Uganda's policy priorities on mitigation (energy sector) are: to promote the development of new clean energy technologies in order to reduce greenhouse gases; promote conservation and efficient utilisation of energy to reduce greenhouse gas emissions, especially at consumer levels (industries, households, commercial and institutional buildings); and encourage the use of alternative fuels instead of relying heavily on biomass.[9] Several strategies are outlined by the country's climate change policy on how to realise the above policy priorities including the following: to promote, encourage and incentivise cogeneration – the production by industries of heat or steam and electricity from renewable biomass; promote the use of alternative renewable energy sources such as solar, biomass, wind and biofuels, as well as their associated technologies; develop hydroelectric and geothermal power systems and integrate them into the East African Power Pool in the medium term; and promote the use of combined-cycle gas turbines in cases where there is a shortfall in renewable energy power generation systems[10].

As of now, the response to climate change in the country is coordinated by the Climate Change Department under the Ministry of Water and Environment. However, there are proposals for the establishment of the National Climate Change Commission[11]. Plans are also underway for the development of a specific legislation to support implementation of the national climate change policy[12].

2.3 Kenya's policy approach to climate change mitigation (energy sector)

Kenya's policy and legal framework on climate change is perhaps the most advanced in East Africa having developed both the policy and legislation on climate change[13]. Kenya seeks to take advantage of its abundant renewable energy resources, through accelerating investments in geothermal, wind, solar and biofuel energy[14]. Kenya has also embarked on an ambitious energy efficiency programme that will see industrial and domestic consumers pursue energy efficient options[15]. Kenya's overall mitigation ambition is to abate its greenhouse gas emissions by 30% by 2030[16] relative to the business-as-usual (BAU) scenario, subject to the provision of international support.

Kenya's *Climate Change Act* came into force on the 27th May 2016, making Kenya one of the few countries in Africa to enact a specific legislation to address climate change. The Act establishes the National Climate Change Council, chaired by the President that shall be responsible for policy guidance on climate change. The Act establishes a Climate Change Directorate, in the State Department with the responsibility for coordinating the country's overall response to climate change as well as developing action plans on climate change. The Act mandates the Cabinet Secretary to formulate a National Climate Change Action Plan that shall prescribe measures to address climate change including those related to mitigation of climate change. The Climate Change Directorate is

[9] See Uganda National Climate Change Policy, 2015 p.33; see also Uganda's Intended Nationally Determined Contribution (INDC), 2015, pp.8-9
[10] Ibid
[11] Ibid, pp.40-41
[12] Ibid, pp. 43-46
[13] See the National Climate Change Response Strategy, 2010 and the Climate Change Act, 2016; see also Kenya's National Climate Change Action Plan (2013 -2017)
[14] Ibid; see also Kenya's Intended Nationally Determined Contribution (INDC), 2015, p.2
[15] Ibid
[16] Supra, note13

mandated to establish and manage a national registry for appropriate mitigation actions by public and private entities. Finally, the Act establishes the Climate Change Fund for financing actions to address climate change.

2.4 Tanzania's policy approach to climate change mitigation (energy sector)

Tanzania intends to implement a number of interventions in the energy sector, including: 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; promotion of clean technologies for power generation; and diverse renewable sources such as geothermal, wind, solar and renewable biomass; expanding the use of natural gas for power production, cooking, transport and thermal services through improvement of natural gas supply systems throughout the country; promoting energy efficient technologies for supply, transmission/transportation and demand side as well as behavioural change in energy use; and promoting rural electrification[17]. Tanzania's overall mitigation ambition is to reduce greenhouse gas emissions economy wide between 10-20% by 2030 relative to the business-as-usual (BAU) scenario[18] subject to the provision of international support.

At national level, the Vice President's Office (VPO), Division of Environment is responsible for all climate related activities[19]. At national level, there is an established National Climate Change Steering Committee chaired by Permanent Secretary of the VPO[20]. This committee provides policy guidance to the National Climate Change Focal Point to ensure coordinated actions and participation within various sectors and institutions[21]. There is also the National Climate Change Technical Committee chaired by the Director of Environment which provides technical advice to the National Climate Change Focal Point[22].

2.5 Rwanda's policy approach to climate change mitigation (energy sector)

In 2011, Rwanda adopted a strategy that articulates the country's actions to reduce greenhouse gas emissions in energy, transport and agriculture sectors[23]. Rwanda aims to 'exploit its clean energy resources to support a low carbon national grid which will enable industry to operate in a low carbon way'[24]. Rwanda's current on-going activities towards a low carbon economy include: establishment of new grid connected renewable electricity generation capacity in the form of large-scale hydro power plants and solar PV power; installation of solar PV mini-grids in rural communities; increasing energy efficiency through demand-side measures and grid-loss reduction; and promoting environmentally sustainable use of biomass fuels[25]. The strategy creates two institutions to help spearhead Rwanda towards a low-carbon development pathway – Centre for Climate Knowledge for Development (CCKD), and a Technical Coordinating Committee. These two institutions will complement the already existing institutions including the Climate Change Unit under Rwanda Environment Management Authority, and the National Fund for Climate and the Environment (FONERWA).

2.6 Burundi's policy approach to climate change mitigation (energy sector)

Burundi's unconditional mitigation contribution is to reduce greenhouse gas emissions by 3% compared to the business-as-usual (BAU) scenario for 2030, while its conditional mitigation contribution is to reduce greenhouse gas emissions by 20%, beginning in 2016, compared to the business-as-usual scenario for 2030[26]. In the energy sector, Burundi is in the process of building three hydroelectric power plants which are expected to increase the country's

[17] See Tanzania's Intended Nationally Determined Contribution (INDC), 2015, pp.6-7
[18] Ibid
[19] See National Climate Change Strategy (2012), pp.50-51
[20] Ibid
[21] Ibid
[22] Ibid
[23] See Rwanda's National Strategy on Climate Change and Low Carbon Development, 2011. p.23, pp.27-28; see also Rwanda's Intended Nationally Determined Contribution (INDC), 2015, pp.13-17
[24] Ibid
[25] Ibid
[26] See Burundi's Intended Nationally Determined Contribution (INDC), 2015 p.8. The conditional mitigation objective is subject to the provision of financial support by developed countries.

electrification rate to 35%[27]. Burundi's Ministry of Environment is responsible for the overall implementation of climate change related activities[28].

This paper has reviewed climate change mitigation policies of Uganda, Kenya, Tanzania, Rwanda, and Burundi with specific focus on the energy sector, and finds them to be consistent with those articulated at the EAC regional level.

3. Climate Change mitigation policies on the energy sector in East Africa: Implications for the private sector

The private sector has an enormous role to play in initiatives to address climate change[29]. In developing countries there is a greater need for the private sector to be engaged in identifying climate change risks and opportunities, as well as mitigation measures[30]. It is believed that successful private sector engagement in climate change mitigation will catalyse greater investment in reducing vulnerability and this in turn will increase the replication of climate resilient technologies and services[31]. Besides, the private sector has the capacity to mobilise the much needed financial resources which is a great challenge to many developing countries[32]. The private sector can also mobilise technical capacity, leverage government efforts, engage civil society and the community and also develop innovative climate services and technologies[33].

The emerging climate change mitigation policies in East Africa, more specifically those related to the energy sector, present important issues for consideration by the private sector. The analysis of the various climate change mitigation policies in East Africa shows a significant policy shift towards clean energy and renewable energy. The policies emphasise investments in energy sources such as geothermal, solar, wind, and biofuels. This means that if governments actually implement the various policy priorities as articulated, the East African region will witness increased renewable energy and clean energy investments. And this means that there will be immense opportunities for the private sector to harness.

In Uganda for instance, only 17% of the country's power-generating capacity of just over 900MW comes from renewable sources excluding large hydro[34]. In a bid to accelerate development of renewable energy generation, the government is implementing the Global Energy Transfer for Feed-in-Tariff (GET FiT) programme targeting projects of 1 MW – 20 MW mainly implemented by private developers[35]. By 2014, the GET FiT program had approved 12 projects with a combined capacity of 103 MW[36]. It is projected that the GET FiT will attract more than US$ 450 Million of private investment into Uganda[37]. There is also increased investment into the development of renewable energy by development partners (notably the UK, Norway, Germany, the EU, and the World Bank) – with commitments of up to EUR 91 Million by 2014[38]. In 2015, Uganda was ranked 9th globally among developing countries for its ability and potential to attract capital for clean energy investments[39]. In 2016, the Fieldstone Africa Renewables Index (FARI) ranked Uganda third best in Africa in attracting renewable energy investments[40]. Bearing in mind the overall goal of the Ugandan government to significantly increase the use of modern renewable energy, there is tremendous potential for growth of the sector[41]. This is boosted by an attractive policy environment for investment in renewable energy including, credit enhancement and support instruments (a partial risk guarantee,

[27] Ibid
[28] Ibid
[29] See Martin Stadelmann and Axel Michaelowa, 2013. Contribution of the Private Sector to Climate Change Long-Term-Finance: An Assessment of Private Climate Finance mobilized by Switzerland, Final Report Commissioned by the Federal Office for the Environment (FOEN); see also Rory Sullivan, 2014. Climate Change: Implications for investors and financial institutions. UNEP and University of Cambridge
[30] Ibid
[31] Ibid
[32] Ibid
[33] Ibid
[34] See Bloomberg New Energy Finance, 2015. Climate Scope 2015: The Clean Energy Country Competitiveness Index. pp.88-89
[35] See Electricity Regulatory Authority, 2015. Annual Report 2013/14, pp.26-27
[36] Ibid
[37] Ibid
[38] Ibid
[39] Supra, note 34
[40] See www.fieldstoneafrica.com/uploads/FARI.pdf
[41] See Renewable Energy Policy for Uganda, 2007 p.1

bridge financing and subordinated debt finance) through the government agency, the Uganda Energy Credit Capitalisation Company[42].

Kenya is ranked 6th globally in clean energy investments and only second to South Africa among 19 key African countries[43]. Kenya's ambitious energy goal is to reach approximately 22.7GW of power-generating capacity by 2030 comprising 51% renewable energy[44]. By 2014, Kenya had 2.2GW of power-generating capacity, of which 33% was clean energy[45]. From 2009 to 2014, the value of total clean energy investments amounted to USD 3.6 Billion[46]. In 2014, Kenya became the 8th largest producer of geothermal energy[47].Kenya's clean energy resources are impressive – with 10GW and 3GW of geothermal and small hydro potentials[48]. Kenya has committed to cutting greenhouse gas emissions by 30% relative to business as usual by 2013[49]. A number of development financial institutions are active in Kenya's renewable energy sector including, European Investment Bank, African Investment Bank, and KfW. Given Kenya's attractive policy and legal environment for the development of renewable energy as well as the tremendous interest of various financiers, Kenya presents immense opportunities to the private sector.

In Rwanda, the current installed power capacity stands at 140.6MW of which 63.4% comes from renewable energy sources[50]. The government's aim is to increase this power generation capacity to 1,000MW using clean energy sources such as geothermal power, solar PV and small and large scale hydropower[51]. Rwanda will implement several strategies[52] in order to realise its objectives including: developing a strategy to phase out fossil fuels, utilise Rwanda's domestic energy resources, and increase energy efficiency; establishing renewable energy feed-in-tariffs and public-private partnerships to encourage private investment; implementing renewable energy guidelines and codes of practice; and developing a medium-term strategy for peat phase out. From 2009 to 2014, total clean energy investments in Rwanda amounted to USD102M[53]. The country is currently ranked 17th globally in terms of its ability to attract clean energy investments[54]. In 2014, Rwanda commissioned the largest solar power project (8.5MW) in sub-Saharan Africa outside South Africa[55]. The power sector is regulated by Rwanda Utilities Regulatory Authority (RURA)[56].

Tanzania's installed power capacity stands at 1.6GW of which 3.4% comes from renewable energy sources[57]. From 2009-2014, total clean energy investments amounted to USD158.6M[58]. The country aims to achieve 300MW of renewable energy by 2015, comprising of solar, geothermal and wind[59]. Overall, the country targets to achieve 10.7GW of power capacity by 2025[60]. In 2015, Tanzania ranked 23rd globally in terms of its ability to attract clean energy investments[61]. Power generation, transmission and distribution is dominated by the state owned TANESCO, although several private developers are active in the power industry, including those developing solar power plants[62].

Overall, it is noted that there are immense opportunities for the development of renewable energy and clean energy in East Africa. The governments in the region are taking commendable steps to improve the policy and legal environment so as to improve the investment climate.

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[42] Supra, note 34
[43] See Bloomberg New Energy Finance, 2015. Climate Scope 2015: The Clean Energy Country Competitiveness Index. pp.64-67; see also Kenya's Least-Cost Power Development Plan (2013-33); see also Draft Energy Policy, 2015
[44] Ibid
[45] Ibid
[46] Ibid
[47] Ibid
[48] Ibid
[49] See Kenya's Intended Nationally Determined Contribution (INDC)
[50] See Bloomberg New Energy Finance, 2015. Climate Scope 2015: The Clean Energy Country Competitiveness Index, pp.76-77
[51] See National Strategy for Climate Change and Low Carbon Development, 2011, pp.23-24
[52] Ibid
[53] Supra, note 50
[54] Ibid
[55] Ibid
[56] Ibid
[57] See Bloomberg New Energy Finance, 2015. Climate Scope 2015: The Clean Energy Country Competitiveness Index, pp.86-87
[58] Ibid
[59] Ibid
[60] Ibid
[61] Ibid
[62] Ibid

4. Conclusions and Recommendations

This paper has analysed climate change mitigation policies (with a focus on the energy sector) at the EAC level as compared to those being undertaken at member States' level. The overall conclusion is that climate change mitigation policies of the energy sector as outlined in the EAC climate change policy are consistent with those being undertaken at member States' level. Although the degree of ambition varies from country to country, it seems that the general policy shift is in favour of clean energy/renewable energy investment. This will require significant coordination and cooperation by member States of the East African region with regard to the management of the energy generation, transmission, and distribution investments[63]. This together with low levels of electricity penetration in all the East African countries means that there are immense opportunities for clean energy/renewable energy investment by the private sector.

This paper finds that each EAC Member State has its unique institutional framework for implementing climate change policy. This is not surprising since it is not possible to have a standardised institutional framework across the East African region given different circumstances of the countries. What is important is to have a harmonised policy and legal framework in line with the requirements of the EAC Treaty that facilitates rather than impedes the EAC integration process.

Limitations – the analysis provided in this paper is restricted to energy policies as articulated in the various climate change policies, and yet a detailed analysis of the energy laws and policies of each individual Member State would help to provide a deeper insight on the extent to which they are harmonised with the EAC climate change policy and legal framework.

With a view of improving the overall policy environment for renewable energy and clean energy investments, this paper wishes to make the following recommendations:

- The emerging legal frameworks on renewable and clean energy within each Member State should be cognisant of the need to be harmonised with the EAC regional policy on climate change and energy;
- There is need to develop standardised Power Purchase Agreements (PPAs), Implementation Agreements and model licenses. This will ensure reduction of transaction advisory costs and the time required by project developers to negotiate PPAs[64];
- There is need to streamline technical, environmental, financial and economic project due diligence for the permit and license application process;
- Ensure timely payment of dues under PPAs by utility companies to independent power generators;
- Facilitate financial institutions to provide favourable facilities to independent power generators;
- Put in place clear and efficient licensing procedures for private power developers;
- Reform the tariff mechanism to enable automatic tariff adjustment formula to track movement in costs, inflation and currency fluctuations;
- Undertake awareness and sensitisation campaigns targeting the private sector to make them appreciate the need to pursue opportunities presented by climate change; and
- Undertake further analytical papers interrogating the extent of harmonisation of climate change laws and polices within the EAC region– given that this paper has dealt (to a limited extent) with only the climate change mitigation policies in the energy sector.

[63] Supra note 1

[64] Some countries such as Uganda have already registered achievements on this front, but more effort is required by all the EAC member States

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