Energy Challenges in Sub-Saharan Africa: The trilemma between energy access, climate change and renewable energy.

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Abstract

Sub- Saharan Africa (SSA) has vast energy resources, including both conventional and unconventional of which most are untapped. The region, for instance has natural gas potential of approximately 503.3 Tcf. However, low electrification rates coupled with heavy reliance on inefficient energy sources such as traditional biomass are rampant. The fluctuating fossil fuel prices coupled with their negative impact on the environment, has led to massive investments and an increase in the development of alternative clean energy sources. Renewable Energy Sources (RES) are now widely recognized as not only being pivotal to solving SSA's energy access challenges, but also those concerning climate change.

Generally speaking, the heavy reliance on inefficient energy sources such as traditional biomass and fossil fuels negatively affects the environment and has been linked to global warming. In this regard, global efforts to address global warming and climate change have been echoed by the 2015 Paris Agreement. Taking into consideration that SSA has massive energy resources such as coal and fossil fuels, and given the region's energy access challenges, the fundamental question that arises is whether these resources could be utilized in a sustainable manner to address the challenge of energy access? Further, can regional organizations enhance the cooperative development of renewable energy in addressing both energy access and climate change in SSA?

In addressing the questions raised above, this paper discusses the trilemma between energy access, climate change and renewable energy from a regional cooperation perspective, specifically looking at Regional Economic Communities (RECs). The research through a comparative analysis explores how regional cooperation enhances the development of renewable energy in addressing both energy access and climate change challenges in SSA.

Keywords—Energy Challenges, Energy Access in Africa, Climate Change in Africa, Renewable Energy in Africa

Professional Biography

Victoria is a lawyer and holder of a PhD in International Energy Law and Policy from CEPMLP, University of Dundee. She offers extensive experience in the Energy and Mining sectors having worked with various international organisations including the Energy Charter Secretariat in Brussels; East African Community in Tanzania; Southern African Development Community in Botswana just to mention but a few.

Victoria is the founder and Executive Director of The African Energy and Minerals Management Initiative (AEMI), an NGO aimed at among others reaching out to artisanal miners; ensuring that the resources benefit the local people; and ensuring access to clean energy. Victoria is an author and has widely published on topics relating to oil, gas, renewable energy, climate change and mining in Africa. Her latest book was published by Springer, “Energy Poverty and Access Challenges in Sub-Saharan Africa: The Role of Regionalism”. She has also been invited as a speaker and panelist in several forums and conferences discussing topics concerning energy and mining.

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