The Role of Climate Finance in Facilitating Low Carbon Electrification in SSA: Opportunities and Challenges

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January 27, 2022

The incremental change in the level of greenhouse gas (GHG) emissions in the atmosphere has led to climate change characterised by rising global temperatures. This has resulted in extreme and often devastating weather across the globe which has negatively impacted world economies and societies. The International Energy Agency (IEA) and the US Energy Information Administration (EIA) in July and October 2021 respectively issued projections to the effect that there is no peak in sight for carbon emissions and fossil fuels consumption. The projections indicate that by 2050: - a) based on the current policy positions, there will likely be a 50% increase in energy consumption, b) carbon emissions will hit record high levels in the coming years as global economies recover from the disruptions of the COVID-19 pandemic, c) even

though renewables will continue to be the fastest-growing new source of energy, hydrocarbon-based fuels will still meet the bulk of the projected demand and finally, d) that despite increased climate ambitions, the levels of funding that governments are allocating to sustainable climate-friendly recoveries is inadequate.

Worryingly, this increase in emissions threatens to deplete the carbon budget. The carbon budget is a time-sensitive estimation of the total emissions that the atmosphere can safely absorb while still having a chance to contain global warming within 1.5 Degrees Celsius compared to pre-industrial levels as advocated by the Paris Agreement 2015. Conservative estimates by scientists suggest that at the current emissions rate, the planet will deplete its carbon budget by 2027 while liberal estimates indicate that the carbon budget will be depleted by 2045. In either scenario, the point is that the planet does not have much time to reverse the damage caused by climate change. There is, therefore, consensus that in order to preserve the longevity of the planet and the well-being of its inhabitants, it is imperative that the current level of emissions is sharply reduced - through mitigation and adaptation interventions - and that further emissions are curbed altogether.

The Global Move Towards Low Carbon Industrialisation

It is accepted that the greatest culprit in increasing the level of emissions is the industrialisation process. Historically, industrialisation powers socio-economic growth but does so while relying heavily on detrimental carbon-intensive fuel sources. The general understanding is that going forward, fuel sources for industrial processes need to be ‘cleaner’ and there is debate on precisely how different regions of the world are to navigate this energy transition. What is not in debate is that the transition will itself be expensive, with estimated required investments for the global energy transformation by 2050 of about 660 billion per year. Therefore, if countries should make significant diversification from carbon-intensive fuel sources, they need the economic and financial resources to do so. Globally, countries need to be able to transition in a manner that continues to propel them toward achieving their economic ambitions or that at the very least, does not set them back. The sub-Saharan Africa (SSA) region is no exception.

A Compelling Case for SSA to Receive more Climate Finance

Although Africa contributes the least to the global accumulation of GHG emissions at less than 4%, it is more vulnerable to the negative impacts of climate change than any other region. The Intergovernmental Panel on Climate Change (IPCC) predicts that crop yields from rain-fed agriculture may fall by up to 50% and that 75-250 million people will be affected by water shortages in the next decade. The SSA region is susceptible to droughts which will cause low agricultural yields, high food prices and reduce hydroelectric generation potential consequently affecting dependent sectors. Additionally, the current statistics indicate that the SSA region accounts for 75% of the world's population without access to energy in the form of electricity. This means that the region a) desperately needs to address the energy poverty constraints which increase its vulnerability to the impacts of climate change and b) power its economic growth in order to c) develop a coherent response to climate change. Accessing climate finance may be one of the ways to facilitate this.

Climate finance is broadly understood as all financial flows aimed at reducing emissions, enhancing the removal of GHG emissions from the atmosphere and reducing the vulnerability of (or in the alternative, increasing the resilience) of people and the planet to climate change impacts. In relation to developed countries, it is needed for mitigation towards significantly reduced emissions. For developing countries and indeed for the SSA region, climate finance is critical for capital-intensive adaptation interventions. These countries are further constrained by the tensions that they now face between their electricity supply/ expansion targets and the need to do so using less carbon-intensive means.

What Role can Climate Finance Play in Facilitating SSAs Electrification Goal in a Carbon Neutral Manner?

With the exception of South Africa, which has an electrification rate of 85%, most countries in SSA have an electrification rate below 43%. Under the current policies and commitments, the IEA estimated that the aggregate amounts invested between 2017 and 2030 were less than one fifth of the amount required to achieve universal electricity access in SSA- which it estimated at USD454 billion, an average of USD34 billion annually.

This means that there is a substantial energy access and infrastructure investment deficit in the region which is further exacerbated by the existing barriers to unlocking private finance in the energy sector. These barriers include: - lack of transparent and bankable pipeline of projects to support low carbon electrification efforts and their high transaction costs, lack of viable funding models and inadequate risk-adjusted returns for projects, uncertain and in some instances unattractive investment environments for private finance and investment, and lastly, impediments in global financial regulatory systems that inhibit investors from investing in the SSA region and other emerging markets.

With public budgets severely constrained, and the effects of the Covid-19 pandemic wreaking havoc to economies across the globe, securing private finance to facilitate electrification efforts has become even more vital. More African governments are turning to Public-Private Partnerships as a means to secure private finance to build renewable energy infrastructure and increase clean energy electricity generation. However, as highlighted above, private investors or project developers are constrained by the risks associated with investing in the SSA region.

Climate finance can be used to establish dedicated blended finance mechanisms. These leverage various development finance sources to mobilise finance from private and commercial sources for climate action generally and specifically, to meet SSA's low carbon electrification agenda. Blended finance can be used to improve the risk-return of investments and to make them more attractive to private investors and to finance capacity building initiatives. For example, the Global Energy and Renewable Energy Fund (GEEREF) supports investment in specialist renewable energy and energy efficiency private equity funds developing small and medium-sized projects in emerging markets. Other development institutions such as the African Development Bank (AfDB) have also introduced various financing initiatives to support renewable energy generation in SSA. These initiatives include the Sustainable Energy Fund for Africa (a multi-donor special fund managed by the Bank to provide catalytic finance to unlock renewable energy and energy efficiency) and Africa50 (an infrastructure fund owned by AfDB, African governments, and global institutional investors, established to facilitate long-term savings to promote infrastructure development in priority sectors including power). The foregoing

financing initiatives and others are a step in the direction towards facilitating SSAs low carbon transition, by accelerating private finance.

Some Challenges Remain…

While there has been increased international finance directed to the SSA region, Africa only received 23% of the climate finance recorded between 2016 and 2019. It is clear that what is reaching the region is neither sufficient to meet the existing investment gap nor meet the needs for immediate climate adaptation measures. More funding is required. A call has been made for the establishment of a climate finance tracker, as donors have continued to fall short of meeting the pledged annual climate funding targets to the region. That said, achieving the low carbon electrification of the SSA region will invariably require more than international climate financing. African governments must also be willing to undertake the broader governance and sector-specific reforms that are necessary in order to attract the much-needed private investment.

There have also been some legitimate concerns raised that while some critical funding has been directed to the continent, the efforts by the various actors in the development arena have been uncoordinated, incohesive and motivated by conflicting political and commercial interests, particularly from individual developed country donors. This, coupled with funding being delivered in overly bureaucratic structures, as well as the high upfront transaction costs of renewable energy projects, means that larger energy infrastructure projects have been by-passed for smaller and arguably less impactful projects.

Further, significant inequalities exist between the energy-abundant donor countries and the energy-poor recipient countries. On one hand, donor countries are characterised by energy security and reliability with resultant economic growth, while recipient countries experience inhibited economic growth as a result of energy poverty. In this context, the danger posed is that in its eagerness to demonstrate climate action, the developed world may dictate a one-size-fits-all approach to climate change interventions. This would entail the singular pursuit of an accelerated transition to low-carbon and fossil-free energy development by all countries, without considering the varying industrialisation and development needs. Ultimately, developed countries would cease to direct finance to non-renewable energy projects needed to

propel economic growth and development, whilst providing insufficient financing for renewable alternatives.

What would a just transition entail?

More should certainly be done in order for SSA to achieve a low carbon electrification. This includes virtuous efforts for sector reforms by African governments towards more conducive investment environments and streamlining existing international climate funding initiatives through coordination and information sharing and increasing technical assistance to support electrification efforts of the region.

We must, however, be wary of unrealistically expecting SSA countries to 'leapfrog' the need for hydrocarbons. The principle of 'common but differentiated responsibility and respective capabilities' under the Climate Convention, acknowledges that countries are not the same. Developed countries are the source of most past and current greenhouse gas emissions. As such, they are expected to lead the charge by significantly cutting their emissions and financing adaptation measures globally. However, as contended in a Reflection Piece on the 7th Lecture of the Afronomicslaw Academic Forum, the Paris agreement does not impose binding emission reductions based on states' historical contributions. This, the authors argue, allows high emitting countries to not only evade further responsibility, but also points to the failure of International Environmental Law to address colonization and capitalism with the result that the Global South continues to be disproportionately influenced. There exist no high income-low energy countries which means that countries which have made significant economic development strides have done so based on the manipulation of carbon-intensive fuel sources.

With this in mind, we argue that in addition to receiving increased amounts of climate financing, a just transition should also entail prioritizing Africa in the allocation of what is left of the carbon budget. More so because many African countries continue to make discoveries of significant hydrocarbon deposits, and the observable trend is that developed countries continue to manipulate carbon-intensive fuel sources to push their political and economic agendas.

This prioritisation would then set the stage for a deadline-specific trade-off to follow under which: - African countries would be able to a) access, in the short-

term, the kind of rapid carbon-based growth that would enable them to build the economic muscle necessary to implement climate adaptation mechanisms and b) to gain independence from the crippling debt that has been accumulated over time, now exacerbated by the COVID-19 pandemic. SSA countries need climate finance and this funding should be applied not only to mitigate carbon emissions but more broadly to facilitate economic growth and development.

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