

Energy Transition and Stranded Assets: What does the Future Hold for Africa?

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Following the discoveries of natural energy resources in some emerging economies in Africa, there have been substantial investments in the sector, especially for minerals, fossil fuels, and natural gas. However, global dynamics coupled with the threats of climate change have encouraged the transition to renewable energy across the world, including in fossil fuel resource-rich African countries. Despite Africa's increasing interest and investment in renewable energy, less emphasis is given to the issue of "stranded assets" in the region. In the case of Africa, being a new entrant with many emerging resource economies, the issue of stranded assets is one that needs to be handled with utmost urgency as several projects are likely to be undermined by the "stranded asset syndrome" thus posing big development and environmental questions.

The International Energy Agency defines stranded assets as "those investments which have already been made, though at a point in time prior to the end of their economic life (as assumed at the investment decision point), are seen to no longer earn economic returns as a result of changes in the market and regulatory environment brought about by climate policy" (IEA, 2013, p. 98).

In regard to the above definition, one is tempted to think that stranded assets/resources for Africa may not only arise as a result of climate change policies. There exist cases of assets that could possibly be stranded as a result of other factors such as; inconsistent government policies and wrecked institutional frameworks.

On the other hand, the Generation Foundation defines a stranded asset as "one which loses economic value well ahead of its anticipated useful life, whether that is as a result of changes in legislation, regulation, market forces, disruptive innovation, societal norms, or environmental shocks" (Generation Foundation, 2013, p. 21). Delving into Eastern Africa, the definition from Generation Foundation sheds more light on the state of affairs in the region. For example, Kenya, keen on reaching middle-income class status and becoming an industrialized economy has identified energy as one of the key enablers. In achieving this huge ambition, it plans to commission its first nuclear power plant by 2027. A major concern in this regard is the uncertainty from now till its completion. Rapid technology growth and uncertain political terrain might cause diversion of the nuclear investment (for cleaner and cheaper substitutes) due to its capital intensive nature, thereby increasing the likelihood of stranding. Besides, the connection of a 310 MW wind farm plant to the national grid in 2018 has led to a decision to close 3 thermal plants in the country. What does this mean for the country in the next few years?

Similarly, the government of Ghana has initiated

reforms in the mining sector due to the growing concern of the sector's negative effect on river bodies, environmental issues, forest reserves, and livelihood. Authorities placed a ban on both legal and

non-legal operators of artisanal mining for almost 23 months. Even though this action brings to light the achievement of climate change ambitions, it strands assets and resources and affects investors and citizens that benefit from these economic activities.

While the challenge of stranded assets cut across most resource-abundant countries, it is caused by a number of factors in Africa. First, it is created notably by the low-carbon energy transition prompted by the global drive to mitigate climate change as indicated in the Paris Climate Agreement.

The second factor is the challenge arising from uncertainty in economic predictions stemming from global oil price fluctuations. This is in spite of the improvement in production technologies and economies of scale, and applies to both conventional and renewable energy. The latter is at an all-time low.

Third, in many of the emerging economies in Africa, fossil fuels seem to be the trend. But the investment in technologies and infrastructure that support the massive disposition of renewable energies, including climate-proofing of current infrastructure, may lead to the stranding of resources in the region.

Despite clean energy taking a great leap in the African energy mix, conventional energy sources may still play a prominent role for some time because of the massive capital investment that has already allotted to this sector. This is because the transition to cleaner renewable energy comes at extremely high costs and its long term sustainability at this point in time is still questionable for these economies. Further still, looking at the political economy of the extractives sector in some African countries where despite instigation from literature, it's still evident that an array of elite political groups is using these resources to monopolize power and this shows that some African countries are not yet about to give up the use of non-renewable energy sources for other options which don't benefit their interests.

Some schools of thought may not support the climate change drive that could especially strand assets/resources in Africa because they think this too could be a way for the early comers (in this case the developed countries) to kick away the development ladder for the latecomers. This is despite the fact that their average African carbon footprint at 4 percent is not significant as compared to that of other continents. Africa will continue to look at its natural resources

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