



From colonial exploitation to renewable transition: A critical analysis of Africa's energy paradigm

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ABSTRACT

In this article, we examine the intersection of energy and colonialism in Africa. Specifically, we argue that at the core, colonial projects are driven by the imperative to transform the potential energy stored in colonized (or colonizable) subjects into mechanical energy for the production of wealth. We cohere how the search for new forms of energy has engendered vociferous criticism of fossil fuel and other environmentally degrading sources of energy under energy colonialism. We critique this rationale and identify the (neo)colonial catalysts behind the decisions to switch from one energy form to another. We further argue that colonialism has the coloration of a search for new forms of energy and that the wave of the current push for the transition to renewable energy (RE) in Africa is subtly related to this imperial project. We conclude that although the transition to RE is assumed to be the next big and sustainable energy source for Africa, such a transition must only be deployed after stripping it from the vestiges of colonialism that characterized previous energy transitions. This article, as a contribution to knowledge, provides a framework for a fair and just RE transition in Africa.

Keywords: energy colonialism, environmental justice, renewable energy, neo-colonialism, environment, just transition, sustainable development

INTRODUCTION

Recently, scholars have begun to theorize on the intersection of colonialism and energy development under the rubric of energy colonialism. Mapping this intersection is not only necessary for more nuanced critiques of colonialism that reflect the dimension of energy injustice. It is also important for the contextualization of such energy injustice, especially in this era, where energy development is one of the important Sustainable Development Goals (SDGs) that countries are working towards achieving.¹

The colonial sentiments in specific renewable energy (RE) investment such as wind have been addressed by Ramirez and Bohm (2021a, p. 102-135) when they analyze the pattern of wind energy investments in Mexico. They argue that the wind energy investment scheme is laden with what they call "transactional colonialism", a situation they described as "the continuity of interlinked injustices based on economic transactions" (Ramirez & Bohm, 2021a, p. 3). Similarly, de

Onis (2018, p. 5), evaluating the vagaries of colonialism and "carbon corruption" in Puerto Rico argued that

future research on energy policy, discourses, and injustices should foreground the role of energy colonialism and its legacies in shaping deliberations and decision-making processes and how various discursive practices enable and constrain more sustainable energy futures.

These studies reinforce the need to take seriously the subtle ways in which colonialism underlies energy development and that energy development discourse need to take issues of oppression and race more seriously in a bid to uncover the exploitation of energy resources in many societies, including Africa (Newell, 2021, p. 1). Although, there is a budding research on how RE forms and infrastructure can be developed (Appiah et al., 2023; Esily et al., 2023), financed (Appiah-Otoo et al., 2023; Onuoha et al. 2023), and deployed (Manu et al., 2022) to benefit the African socioeconomic environment, there is little research that spells out the subtle

¹ Sustainable development goal 7 is one of the 17 sustainable development goals that was established by the United Nations General Assembly in 2015. It was stated that the aim of this goal is to "ensure access to affordable, reliable, sustainable, and modern energy for all."

colonial strategies in the push for RE transition, as well as the roadmap for ensuring a just transition to RE in Africa. Hence, this article fills this gap in the literature by providing critical insights into how the current RE development ploys in Africa is laced in (neo)colonialism and therefore provide strategies for an anti-colonial RE development future in Africa.

Studies on energy development focusing on the Global Southern context point out the implications of power politics in the energy sector. For instance, Kirshner et al. (2020) highlight how perceptions of energy landscapes reflect the social relations of domination in Mozambique. Enns and Bersaglio (2020, p. 101-123) argue that large infrastructure projects in East Africa reinforce colonial legacies in subtle ways. Highlighting the marginalization of household communities in energy development in Southern Africa, Power et al. (2016) argue that socially and spatially uneven energy infrastructural developments in Mozambique and South Africa are at risk of perpetuating colonial electrical geography, given that they favor corporate and elite clients over households and communities. The repressive approach in energy development was also spelt out when Allan and Lakhali (2021, p. 59), focusing on the lived experiences and perceptions of the colonized Saharawi people of Moroccan, conclude that the energy system of this community is “oppressive” and depicts a demonstration of what they call “colonial energoregime”.

Relying on these nuanced critiques of energy development in Africa, we aim to address how the current push for RE in Africa shares an affinity with colonialism.² We explore the nexus between colonialism and the current push for RE in Africa and cite instances, where the drive for RE in some African countries reinforces the experience of colonialism. We did not only make connections between colonialism and RE in Africa, but further critique the socio-developmental potentials of RE transition in the African continent following that trajectory. The critique of RE development in Africa that we provide in this article becomes increasingly important because of the refined forms that colonialism (or neocolonialism as we shall explain later in the article) is taking in this age of environmental degradation. We, therefore, suggest pathways for addressing the subtle colonial strategies in the policies and praxis of transitioning to RE in Africa.

Although we realize that there are many RE sources, such as wind, biomass, hydropower, and solar, with each one having its peculiar challenges within Africa’s colonial experience, we neither focus on a particular RE source nor localize the scope of our analysis to a particular African country.³ This might be seen as a limitation to the arguments we have put forward. However, we think such limitation is not weighty enough since the essence of this article is to draw attention to the subtle imperialism in the push for RE that is fast gaining popularity in the African continent with the mind to proffer a transformative road map for RE transition in Africa.

This paper is divided into five sections. The first section examines the two forms of energy, that is, potential and mechanical energy, to provide a basic understanding of the nature of the energy that we are addressing. In the second

section, we address the nexus between energy and colonialism in Africa, showing how the experience of colonialism in the continent was largely the search for energy sources. The third section provides a concise analysis of the paradoxical situation of RE potentials and energy poverty in Africa. The fourth section builds on the analysis in sections two and three to provide a robust analysis of colonialism and RE production in Africa. In this section, we argue that the current strategy of popularizing RE in Africa finds some sort of learning with that of colonialists. This critique is important because of the subtle forms that colonialism and neocolonialism are taking in this environmental age. In the final section, we suggest some sustainable development imperatives for Africa’s transition to RE. The analysis in this last section suggests how African countries can position themselves today to hedge against the new risks of energy colonialism and seize emerging opportunities in RE transition and development.

FORMS OF ENERGY

There are basically two basic forms of energy namely: potential energy and mechanical energy. Potential energy is that energy that is stored up in objects and can be gotten with the dissolution of such objects. In clear language, objects like wood, plastics, and stones have potential energy in them. This is so because when we burn wood, we can derive energy from it; we also get energy from plastics using a process called cold plasma pyrolysis. Humans are used to getting energy from stones by causing friction between two stones to produce fire. In modern times, potential energy exists in objects such as uranium and plutonium, which is accountable for one-third of energy used by man. On the other hand, mechanical energy is the energy of bodies in motion. From something that moves, like a swinging pendulum or rushing water, a dam becomes a perfect example of the demonstration of mechanical energy.

Potential Energy

Every day of our lives, we engage in a variety of activities that have to do with potential energy. Going to school, for example, we need to lift our bags and hang them on our shoulders. By lifting the bag, we have demonstrated and transformed potential energy into kinetic (mechanical) energy. On the football field, we run around and then kick or throw a ball, watching it fly in the air or roll speedily to the position of a fellow teammate. In this case, potential energy has to do with two things: the energy saved in an object, which Padmavathi (2011, p. 99) says is composed of different atoms based on their nature, arrange themselves in different crystalline forms and the order in which atoms associate with neighbors, determine the bonding energy, and the position of the object. This idea of energy is widespread in Africa too as “the Bantu’s as well as other Africans, being is animated by force” (Archibong & Usoro, 2021, p. 225).

However, the amount of energy in the object is determined by the relative position of that object. This shows that

² We did not attempt to delve into the historical analysis of colonialism in Africa so that we do not deviate from the focus of the article. For a critical discussion of the history of colonialism in Africa, see Taiwo (2010).

³ For a discussion of some of the renewable energy sources in Africa like wind, solar, water, geothermal, etc., see Hafner et al. (2019).

potential energy and mechanical energy are intertwined, and the relationship is vested in the amount of force that is applied to it. Also, this is the reason why Rankhumise and Maimane (2014) demonstrate potential energy using the swinging pendulum and how it tilts from one end of a clock to another. They explain that the pendulum is an example of the conservation of mechanical energy that is often used. A swinging pendulum has its greatest kinetic energy and lowest potential energy in the vertical position. In this position, the speed of the pendulum is maximum and the height above the earth is the least. It has its lowest kinetic energy and greatest potential energy at the extremities of its swing. Once we lift a bag from the floor or set a ball rolling, force is applied to the object, which decreases the potential energy of the object. This potential energy continues to decrease for as long as the force (mechanical energy) is applied to it. In this case, the potential energy of an object increases when the force applied to it decreases.

Mechanical Energy

We make use of mechanical energy just the same way we make use of potential energy every day of our lives. The word “mechanical” is an extension of the term “mechanics”, which is mostly related to force and motion. Hence, mechanical energy is the energy of force and motion. The implication of this definition is that mechanical energy is a combination of potential and kinetic energy. Mechanical energy is mostly discussed within the confines of gravitational and kinetic energy. These two are usually seen as forms of mechanical energy. Kinetic energy is expressed in the motion of an object regarding the energy that is embedded in it (potential energy) while gravitational energy has to do with the height of an object, its weight, and the amount of potential energy that is embedded in it. For example, when we lift an object, its gravitational potential energy changes, the higher the height, the higher its gravitational potential energy.

Here, we see the interplay and relationship between potential energy and mechanical energy. In the conceptualization of energy, potential energy is determined by force and motion in the kinetic form of mechanical energy in that, the higher the force, the lesser the potential energy than when it is in uniform velocity. This is expressed by Ashan Induranga et al. (2020, p. 3500-3501) who in a bid to explain kinetic energy in the daily exercising of human beings avers that

human energy stored as chemical energy is then converted into kinetic energy. During this energy conversation via exercise, fat stored in the human body burns to produce kinetic energy. But during the workout at exercise machine, this produced kinetic energy is transformed to mechanical energy through the exercise machine.

The potential energy of an object is also relative to the gravitational elements of mechanical energy in that, the higher the object goes up, the higher its gravitational potential energy is proportional to the mass of the object. This is better explained by Heighway as quoted by Lecca (2021, p. 4) that when a mass is raised against gravity, the increase in potential energy, is stored in the body itself as an increase in rest mass.

INTERSECTION BETWEEN ENERGY AND COLONIALISM IN AFRICA

In a bid to explore and discover new lands, Europeans arrived in Africa, established colonies and exported the mineral resources they could lay hands on. Today, not only is the Western world a beneficiary of energy mineral resources from Africa, but the Eastern world has also joined the race for Africa’s mineral deposits. The situation is so serious that Curtis (2016, p. 1) had to note that the continent of Africa is today facing a new colonial invasion, no less devastating in scale and impact than that which it suffered during the nineteenth century. Today, the case seems different with China taking the lead.

Apart from overtaking the US in this regard, China has overtaken the whole of Europe in that aspect. Such is the case of what is termed energy colonialism in Africa. It is a truism that most energy mineral resources in Africa are owned and utilized by other countries. Meanwhile, Africa lacks a future in RE and seems to be incapable of meeting up with the rest of the world in the emerging technologies of the 21st century. The Democratic Republic of Congo has the most energy and RE deposits in Africa with an abundance of natural wealth. Today, the Democratic Republic of Congo is the 12th least developed nation in the world (United Nations, 2021, p. 16).

The foundation of international colonialism or imperialism now seems to be disguised in the form of multi-nationals seeking to invest in African energy, own mines, and engage children in these mines regardless of international laws. Congo for example, is still poor and has a dwindling economy while serving as a ground, where Chinese workers now invest and reap a fortune. Developed countries now use Africa as a ground in the area of energy competition with China now taking the lead in the ownership of most African resources through loan offers and infrastructural investments. Despite the presence of bountiful energy resources in Africa, Hafner et al. (2018, p. 1) note that

Africa is only in a state of animated suspension and living on energy mineral resources, which it neither owns nor controls. It is obviously a sad reality that after Africa must have been colonized in the previous centuries, it still faces a colonization of its energy resources.

The contemporary forms of colonialism manifested in the capture of energy sources in Africa has been decried by Blanc (2022, p. 3-26) as “green colonialism.” Blanc traced the history of ecological destruction by the White Supremacist in Africa to show that colonialism in the form of slaving human beings might have ended but the spirit of the current ecological control and destruction in Africa is identical with the spirit behind earlier colonialism.

Here, we see a description of how the experience of colonialism has plundered Africa into the paradox of energy development, where Africa, having so many energy resources, still struggles with energy poverty. In the next section, we shall discuss more of this paradoxical situation.

RENEWABLE ENERGY: PROSPECTS IN AFRICA'S ENVIRONMENT

Natural sources that are replenished at a higher rate than they are consumed is, where RE is derived. Balcioglu et al. (2017, p. 20) notes that the term energy resources refer to the naturally available forms of energy while the energy sources refer to the output forms of energy from the manmade energy technologies. RE sources are everywhere around us and are cheap and very safe for the African environment yet, Africa lacks enough energy, which is a major requirement for economic and industrial boom. On the other hand, Africa seems to be the most vulnerable continent to environmental hazards due to the use, exploration, and exportation of energy resources. Transitioning to talk about climate change here seems abrupt. However, Africa can make use of its RE resources in ways that prevent certain environmental hazards that come with the emission of greenhouse gases. Apart from having natural energy resources like cobalt, Africa also has rivers, enough sunlight, and natural defense systems like rainforests and swamps. The continent of Africa is not only rich in green natural resources, but it is also a 'Green Continent'.

This is a continent that is said to cut across the equator and has an abundance of crude oil, natural gas, cobalt, sunlight, uranium, and many other energy resources capable of giving each country more than enough industrial and technological power. It is for this reason that the great African revolutionary and Pan-Africanist Nkrumah (1963, p. 24) said that we have here, in Africa, everything necessary to become a powerful, modern, industrialized continent. Africa is capable and has enough resources to deal with the threatening issues of energy shortage through its transition to RE, which can come with great benefits for the continent.

COLONIALISM AND RENEWABLE ENERGY PRODUCTION IN AFRICA

In this section, we shall critically analyze the current drive for RE production in Africa with the aim is to tease out strategies similar to the era of colonialism in the blatant push for the transition to RE in Africa. We shall argue that the strategy of those (capitalists and politicians) at the forefront of popularizing RE in Africa finds some sort of leanings with that of the colonialists and poses an unjust developmental paradigm in the energy sector.

The common assumption behind colonialism is that the territories and places that the colonialists desire to expand to are unoccupied virgin territories. In the era of colonialism in Africa, the colonizers move to invade colonies with utter disregard for the people occupying those colonies. Of course, it is now clear that the colonizer's interest in the continent was human and natural energy resources. The colonizers turned these resources into capital for their own development. This experience has been aptly captured by Mushonga and Ogude (2023, p. 6-11) as "violent capitalocenes".

Africa is currently facing a similar experience to colonialism, where there is the need for sites by investors from developed countries for RE investments. The sites and

territories needed for RE production are assumed to be places that are open for access since the continent has an energy deficit that has created an urgent need to consider RE. The colonial structure in Africa's energy system is becoming a thing of concern. The subjugating influence of man upon nature was an insidious character of the colonial era that is fast spreading in this era of RE production. Colonialism, according to Taiwo (2010, p. 29), was an era that

witnessed ... a new attitude toward nature under which rather than working with nature or propitiating nature, it became an object for subjugation to be brought under control and forced to yield the innermost secrets of its operation.

The experience of colonialism in Africa shows that the colonizers never had respect for the human energy source at their disposal when they were used for cheap labor.

There is currently the exploitation of natural resources by Western capitalists under the guise of providing RE solutions in Africa (Allan et al., 2020, p. 44-48). Although, the importance of harnessing the benefits of nature is quite understandable in the push for RE in Africa. However, if harnessing nature for the purpose of RE is done with a capitalistic exploitative attitude that is detrimental to the environment and the inhabitants of such environment, then such is inimical to the long-term sustenance of the environment and the people. Increasing the spread of RE to Africa in the name of "green economy" (Ehresman & Okereke, 2015) has been criticized by Blanc (2022) as "green colonialism", where nature is exploited purely for profit without any consideration for its negative impacts on the environment and the people.

Since RE has been suggested to be a potential driver of energy in Africa, some of the rich Western nations are camping around this opportunity to exploit the natural wealth in Africa once again as in the grey days of colonialism. From historical records, the acquisition of wealth that inspired the development of Europe was made possible by the exploitation of energy resources by "extraction" in the African continent (Mushonga & Ogude, 2023, p. 1-22). This exploitation has been linked to the acceleration of the heavy greenhouse gas emissions that have caused (and still causing) climate change (Mushonga & Ogude, 2023, p. 14-16). Although the conversation about climate change has made it difficult for the West to continue to pursue fossil fuel usage as a viable source of energy, trying to frame the need for RE as a viable substitute for fossil fuel seems to be a perfect plan to get into Africa's environment and more importantly their economy.

The plan towards economic globalization, through foreign investment in RE solutions in Africa, calls for concern and perhaps another pattern of what some scholars have described as neocolonialism (Ziai, 2020, p. 131-133). Neocolonialism is a situation, where the economic system and political policy of sovereign states are directed by foreign actors. According to Nkrumah (1965), neocolonialism occurs primarily through economic or financial instruments, such as financial dependence of the state apparatus on civil servants and financial transfers from the North, foreign control of exchange rate policy, or monopolistic trade structures, which oblige the

country to import goods from specific countries. Under these conditions, foreign capital investments in “less developed” regions led to their exploitation and to a growing chasm between poor and rich countries, instead of to “development” (Nkrumah, 1965, p. 1). Nkrumah (1965) stresses further that “the struggle against neo-colonialism is not aimed at excluding the capital of the developed world from operating in less developed countries”, but at “preventing the financial power of the developed countries being used in a way as to impoverish the less developed countries”. The theoretical core of neocolonialism remains the control of the economy through foreign actors as the exemplary manifestation of the continuity of colonialism. Applied to the current context of RE, if RE investment is dominated by foreign actors, then Ziai’s (2020, p. 129) position on “neocolonialism” perfectly fits the motivation behind RE investment in Africa.

Recently, the connection between colonialism and energy resources has been made clearer by the nuanced critiques of colonialism that have been put forward to reflect the dimension of injustice that pertains to energy justice (see Blanc, 2022; Dunlap, 2020; Ramirez & Bohm, 2021a). For instance, Ramirez and Bohm (2021a) criticized the pattern of wind energy investments in Mexico, suggesting that such an investment scheme is laden with what they call “transactional colonialism”. Transactional colonialism, according to them, is a term they used to describe “the continuity of interlinked injustices based on economic transactions” (Ramirez & Bohm, 2021a, p. 3). In the past, the colonizers of Africa, have always seen Africa as a nation of raw materials and now, the developed countries see Africa as a viable market for production and selling their products. Popularizing RE as a sustainable energy alternative is another strategy to dominate African natural spaces and markets for their own gain.

RE production is engendering some sort of cultural dislocation similar to the experience of colonialism that had harmful effects on cultural traditions and ways of life in Africa. During the era of colonialism, according to Taiwo (2010), the new colonists abandoned or made it difficult to continue practicing so many of the customs, institutions, and practices of the colonized. The result is that the new people emerged from a “cultural hybridization process” that was dictated by the colonizers thereby spelling cultural dislocation for the colonized. When cultural dislocation of another people is caused by internal factors, it could be easily explained as cultural changes or cultural adaptation but when these changes are caused by external factors, then such should be cautioned because of the propensity to take away self-determination from people whose cultural practice contributes to meaningful life.

In the context of RE production in Africa, the experience of cultural dislocation because of establishing RE is becoming prevalent. In its 2014 report on green resource company, an RE company in Northern Uganda, the Oakland Institute exposes green resources’ action of “carbon violence” because the experience of suffering and destruction reported “was directly tied to the company establishing industrial monoculture tree plantations for entry into carbon markets” (Lyons & Westoby, 2014). In a more recent study, this same company was alleged of actions that was called “carbon colonialism” upon the

resource and people of Kachung in Uganda. The report states clearly that:

Green resources over-inflates the employment opportunities it provides, as well as sidestepping responsibilities related to the health and safety conditions for its workers. Villagers also continue to struggle to secure access to firewood and water, challenges green resources has done little to address. Most profoundly, villagers continue to struggle to access land to grow food and graze animals, driving food insecurity in the region. The industrial monoculture tree plantation and carbon offset project run by green resources at its Kachung site is, quite simply, incompatible with the presence and needs of local people who rely upon the same land for their livelihoods. The outcomes of this project directly undermine local livelihoods and threaten local villagers’ survival (Lyons & Ssemwogerere, 2017).

The penchant for economic growth and expansion through investment in RE has been encouraged by the capitalist West without any consideration for their impact on cultural resources that are sources of livelihoods. If this pattern continues, the repercussions would be seen in what Canfield (2020, p. 1-4) explains as “the many RE conflicts” between food and energy security that might break out. Given the urgency to transition towards more sustainable forms of energy generation, the conflicts between developers and affected communities, not to mention the ecological dimensions, will only increase in the coming decades.

The African agency, no doubt, was battered by the experience of colonialism. The colonialists channeled the creativity of the colonized Africans to satisfy their own demands and satisfaction. Hence, Africa has been struggling to find an authentic strategy for addressing her unique existential problems. In the current push for RE as a viable option to replace fossil fuels, the lack of agency has affected Africa’s prospects to develop homegrown ideas that will help harness the natural resources that are available for RE production. This cannot be less true because Africa is deficient in the financial and technical needs to transform its energy sector, which has perhaps made some African scholars suggest that Africa is still backward when it comes to being a major player in science and technology (Archibong & Ogbenika, 2020, p. 49). There must be an investment in research and development towards curating renewable energy technologies (RETs) in Africa without a bias for local development. However, countries that have the expertise to develop RETs have turned Africa into a business field, where RETs products and services are offered to consumers.

The lure of the transition to RE for Africa is not smooth sailing because of the oppressive and colonial strategies that characterize its establishment. The African continent’s experience of colonialism was detestable and such experience should put Africa on alert to be wary about the seemingly colonial intents in the RE development projects that are suggested and offered to Africa by the developed countries of Global North.

TRANSITION TO RENEWABLE ENERGY AND AFRICA'S DEVELOPMENT

Having addressed the colonial representations and the possibilities of neocolonialism in the push for RE in Africa, we are not bent on rooting out RE as an alternative source of energy for the African continent. Rather, our objective in this work is to provide a roadmap that is justice sensitive for Africa's transition to RE. Hence, we argue in this section that Africa must consider the subtle colonial invasions of RE as an alternative energy source. Doing this will require research and a policy drive that will provide a just and sustainable framework for Africa's transition to RE.

Africa has the world's fastest-growing population. The 2022 International Energy Agency (IEA) Africa Energy Outlook Report report projects that "almost one in two people that will be added to the global population over the next decade will be African" (IEA, Africa Energy Outlook Report, 2022, p. 57). Combined with the prospects for increasing economic activity and household incomes, the demand for energy services on the continent will assuredly go up. Yet many Africans will remain energy poor, despite the region's vast energy resources if there is no clear road map for RE transition in the continent. African countries are endowed with substantial energy resources and technical generation potential. According to the International Energy Agency (IEA) special report on Africa energy outlook:

The continent of Africa is endowed with abundant natural resources of energy and minerals. They include fossil fuels, exports of which have been an important source of income and a driver of economic growth for decades, and critical minerals, which are vital to many clean energy technologies like batteries, solar panels and wind turbines. Plus, it is rich in RE resources, e.g., bioenergy, solar and wind. Solar and wind power could be transformed into hydrogen to serve energy demand in Africa as well as to generate income through exports (IEA, 2022, p. 136).

However, the main obstacle to unleashing the growth of African economies is the development of its energy resources through investments that will propel the power sectors to provide access to sustainable energy for the entire population. Investments are underway, but Africa must display tact in embracing them because of the sources they are coming from so that experiences similar to colonialism will not befall the continent again.

Africa has not shown that it understands what is at stake in the drive for RE transition by the rich countries. Irrespective of energy resources endowment and the RE potential in Africa, as at today, most African countries share a structural lack of secure and universal energy access. The energy development process is facing several barriers connected to various technological, economic, financial, institutional, political, and social issues that have been detailed in the 2022 international energy outlook report (IEA, 2022). The various governments in Africa have struggled to come up with policies that will address these barriers and support a just transition to RE.

No doubt, RE investment is good in itself but there must be contextual considerations in its adoption and deployment, particularly for Africa. Africa is currently struggling with developmental morbidities that are threatening her long-term sustenance. In recent times, the continent is struggling to contain the grueling effects of environmental challenges that have caused erosion, flooding, food shortage, and a host of other problems. The effects of the COVID-19 pandemic and the war between Russia and Ukraine have also affected Africa's energy development (IEA, 2022, p. 21). The push for RE as a sustainable source of energy for Africa comes at a time when Africa cannot afford to be run down by superior West on the baited assumption that it is an urgent need for the continent.

RE has gained traction on the African continent. In the past 15 years, many African states have embarked on ambitious transition strategies and adopted RE legislation. Between 2006 and 2017, RE investments in Africa and the Middle East have multiplied from \$1,2 billion to \$19 billion (Muller et al., 2021, p. 119). However, it is not clear whether these states have adopted RE with a clear understanding of the issues at stake. Any proposal for a just transition to RE must align with an authentic African development paradigm that supports the growth of the continent alongside its people. This would require a deliberate attempt to strip the vestiges of colonialism from RE production and developmental plans for a just RE transition in Africa.

From hindsight, according to Karekezi and Afrepren (2003, p. 6-7), there are two global environmental initiatives that fueled interest in renewables in Africa. The first was the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil in 1992. At this Conference, an ambitious environment and development document entitled "Agenda 21" was reviewed by one of the largest gatherings of Government Heads of States and, perhaps more importantly, was endorsed by a large number of multi-national companies. Agenda 21 sought to operationalize the concept of sustainable development. In addition, the Rio Conference provided the venue for the second important event, the signing of the United Nations Framework Convention on Climate Change (UNFCCC) by 155 Governments (United Nations, 1992). The Convention came into force in early 1994 after ratification by 50 States. After these two events, countries in Africa have been sensitized to the energy resources in their environment and how it can be sustainably harnessed. However, the representation of sustainable development from these two initiatives over time has not produced any authentic energy development plan that has translated into a viable energy development for the African continent.

While it is expected that energy development is prioritized by Africa, the continent must be aware of the subtle neocolonial strategies in the call for a transition to RE as an energy development strategy. The offering of financial aid by developed countries with conditionalities that deepen their institutional and economical foothold on the incumbent powers similar to the colonial era must be resisted. Developing countries in Africa should be careful to avoid the kind of structural influence that exist in colonial times especially when there is currently a limitation in the access to energy and

capacity deficits partly occasioned by the experience of colonialism.

Africa must not be a destination for wealthy investors and corporate polluters of the environment. There are energy colonialists who target precarious communities in Africa with the aim to continue the master and-servant relationship of the colonial era. Hence, proposals for the transition to RE must not ignore the need to harness local resources in sustainable ways. Colonial resource extraction, across the global south, disregarded the local resource institutions that enabled a sustainable resource interdependence over the centuries, resulting in resource overuse if not destruction. The use of natural resources at a rate higher than nature's capacity to restore itself can result in environmental degradation, ecological disturbances, destruction of natural flora and fauna, pollution, global warming, and desertification. In adopting renewables in Africa, policymakers in Africa cannot afford to sleepwalk into another colonial experience with long-term environmental sustainability at stake.

More importantly, upholding human rights must be at the forefront of energy transition plans in Africa. However, there seems to be no constructive dialogue in many African countries to ensure that indigenous peoples' right to self-determination is respected alongside at the start of the energy transition. This point was aptly expressed by Ramirez and Bohm (2021b) when they argue that "free, prior, and informed consultation, a mechanism for popular participation in investments that affect indigenous peoples appears little more than a simple formality on the part of governments and investors". If RE transition would not pose a post-colonial ethical contradiction for Africa, the rights of indigenous peoples that are subjected to environmental and geographical injustices on their own territories must be recognized.

A "green economy" of which RE transition is an important part has been touted as a viable environmental policy that will replace the current paradigm of capitalism that exploits the environment in the bid to address "environmental injustice" (Ehresman & Okereke, 2015). However, the objective of achieving a green economy through energy diversification must not be naive to or disregard the socio-economic traditions of the indigenous peoples. Paying attention to the social justice concerns of indigenous people when addressing RE transition provides a valuable analytical framework for assessing the course and content of energy transitions. In fact, some scholars argue that energy justice must consider the sense of indigenous energy justice that moves beyond the threefold conception of justice that includes "distributive, recognitional, and procedural justice" to include restorative justice (Jenkins et al., 2016; Sovacool & Dworkin, 2015, p. 4).

While distributive justice refers to the distributional effects of transition processes, that is, affordability of RE and access to RE. Recognitional justice asks whether transition strategies pay sufficient attention to energy poverty by addressing the needs of vulnerable groups. Procedural justice considers the democratic dimension, especially questions of participation and political articulation (Muller et al., 2021, p. 120). As Sovacool and Dworking (2015) argue, restorative justice in the context of indigenous energy justice must take cognizance "of indigenous natural laws relationality, and kinship to bring

together human and more-than-human relations in healing for planetary wellbeing to reconciliation".

Policies on Africa's transition to RE under the cloak of "green economy" must not leave out any of these justice considerations. So, while the European "green deal" makes sense in Berlin or Oslo, in that it opens up the economy to investment opportunities in energy transitions, it however looks very different when viewed from Dakar or Abuja, where there is inequality in access, recognition, and participation in addressing energy poverty. Equal access to renewable energies and recognition of, and participation in the use of geographical spaces are at the heart of indigenous debates around the problems that arise from investment in renewable energies. An inclusive energy development can be achieved through "pluralizing, localizing and provincializing energy justice by linking the concept to norms stemming from Southern cosmologies, such as Ubuntu" (Muller et al., 2021, p. 121). The concept of energy ethics and justice in the Western and non-Western traditions need to be developed as Ibanga (2018) has put forward. This comparative perspective, however, is needed to gain stronger evidence on the course of transitions and their awareness of the justice dimension in relation to SDG 7, which aims to "ensure access to affordable, reliable, sustainable and modern energy for all." By 2019, Africa was already off the track to achieve the goal of SDG 7 that is, access to electricity and clean cooking, while the expected outcome has deteriorated markedly as a result of the pandemic due to project delays and lower household incomes (IEA, 2002, p. 35).

Furthermore, the choice of RE technologies for dissemination and development in sub-Saharan Africa should consider the existing technical knowledge and local industries. Technologies that improve existing methods and build on already established industries are more likely to be successfully disseminated than those that disregard local methods. Brato et al. (2018) point out that the energy justice concept needs to pay additional attention to postcolonial realities, that is, the extent to which recent transition processes mirror colonial power structures in epistemological (access to transformation knowledge) or material terms (access to technology).

Africa's transition to RE must not be hasty without human resource development or else Africa would remain subservient to those who understand the technical strategies involved. The idea is that there must be a serious commitment to research and development on renewable energies in Africa. Sadly, there are few energy researchers in Africa and most of them have received their training in the developed countries of the West with little understanding of regional complexities. This lack could be remedied if support is provided for these researchers to adapt their research to the local energy needs. Moreso, their enlightenment is needed in key conversations about Africa's energy future.

Finally, Africa as a continent must find a consensus voice on adopting RE to fight the hegemony of the Global North with huge capital for investment into RE. This consensus voice is lacking in addressing developmental issues that concern all in Africa. For instance, despite the growing evidence of climate change, the position of the African energy community on the climate change question has not been unanimous. This would have consequences on the kind of support that African

countries would give to renewables. Support for renewables has been, at best, lukewarm on the part of energy experts from oil-exporting African countries such as Algeria, Angola, Cameroon, Nigeria and Libya. Despite the suggestion that there is need for divergence on the source of energy to better respond to the challenge of climate change, the consensus around the further development of renewables appears to be stalling.

CONCLUSIONS

We have made it quite clear from the foregoing analysis that the force domination and dispossession that was manifested during the era of colonialism is difficult to ignore, not only in Africa's political or economic history but even in her energy development systems. We critiqued this outlook of energy colonialism. We have provided stimulating insights into Africa's current energy context and the strategies that could help her work out an affordable energy future for its entire people. Our analysis pinpoints how African countries can position themselves today to hedge against new risks of energy colonialism and seize emerging opportunities in RE development. Our attempt to address energy colonialism has provided possibilities for imagining a more just pathway for Africa's RE future. Africa might still have a long way to go in achieving energy security; the continent should, however, be wary of neo-colonial strategies in energy transitions put forward by capitalist paymasters to subtly make them subservient. In the context of RE transition, what is important going forward is that the RE transition must be embraced with clarity of what is at stake. Hence, we quite agree with de Onis' (2018) suggestion that

future research on energy policy, discourses, and injustices should foreground the role of energy colonialism and its legacies in shaping deliberations and decision-making processes and how various discursive practices enable and constrain more sustainable energy futures (p. 5).

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