

Carbon markets as green extractivism: Land governance, indigenous rights and livelihoods

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Abstract

This paper critically examines how market-based environmental strategies within the broader discourse of green colonialism and its current facet of green extractivism reconfigure land governance and indigenous rights and livelihoods. The paper posits that REDD+ based carbon forest development activities deployed under the global imperative of carbon sequestration reinforce neoliberal environmental governance and dispossess indigenous people and commodify nature. The paper therefore explores the socio-political dynamics of green colonialism and its current facet of green extractivism in the Ashanti, Brong-Ahafo, Volta and Northern regions of Ghana targeted for capitalist carbon markets regime. In doing so, this paper questions the ontological dispossession catastrophism embedded in green capitalist logics of accumulation by employing political ecology and decolonial theoretical framework to examine how and why green colonialism and its current facet of green extractivism take the form they do in Ghana. It concludes by calling for resistance and counter-narratives grounded in ecological justice and indigenous sovereignty.

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Introduction

Capitalist carbon markets regime has become central to international efforts to address climate change catastrophism in recent decades (Ashraf, & 2024; Johnson 2021; Kpienbaareh & Ahmed, 2023). Global experiments in market environmentalism through neoliberal climate governance mechanisms such as cap-and-trade, voluntary carbon offsets and REDD+ seek to reduce greenhouse gas emissions (Wolford 2024; McDermott et al., 2024; Osei, 2025). Nation-states and powerful transnational institutions and corporations in their efforts to meet climate mitigation targets increasingly turn to the commodification of carbon often through forest conservation projects (Agunyai & Amusan 2023; Hassan & Prasad 2025). Thus, the contention of this paper is that the “win-win” sustainability narratives in many ways effectively obscure the deeper historical tensions and socio-political dynamics of land control, ecological value, and global environmental justice (Lang 2024).

It is for this reason that in-depth and systematic enquiry that considers the political dynamics, political ecology and land property relations of contemporary large-scale land deals is urgently needed. Ghana’s growing role in implementing global climate strategies like REDD+ efforts and voluntary carbon offset projects have become emblematic for these experiments in market environmentalism (Ontoyin et al., 2025; Kyere-Boateng 2021). This paper examines Ghana’s experience where nature is commodified, and ecological governance is increasingly monetized and/or financialized. Ghana has become a focal point for carbon markets and a site for the operationalization of green capitalism and its current facet of green extractivism in Africa (Kansanga & Luginaah 2019). This study aims to critically examine how carbon markets manifest and materialize in Ghana under the framework of green colonialism and its current facet of green extractivism. In this way, this paper poses the following pertinent questions: What are the ecological, social, and political implications of REDD+ and other carbon offset projects in Ghana? To what extent do carbon markets in Ghana reproduce or challenge historical patterns of land commodification and ecological dispossession catastrophism? How do carbon offsetting frameworks in Ghana intersect with indigenous relational ontologies of land and ecology? This paper represents a major scholarly intervention in contemporary debates about green colonial capitalism and its current facet of green extractivism under framework of carbon market.

The paper contributes to the literature by offering insights into land governance and indigenous rights due to increasing commodification and financialization, and how these engenders ecological dispossession and global capital accumulation. The imbrications of decolonial critique and political ecology frameworks provide compelling suggestions to move beyond green colonialism and its current facet of extractivism, and to create alternative spaces rooted in relationality, reciprocity, and care for the Earth. This study

employs a qualitative case study methodology combining review of literature focused on selected REDD+ or carbon offset projects especially in the Volta, Ashanti, Brong-Ahafo and Northern regions of Ghana. Data so gathered were analyzed using critical narrative in the qualitative research tradition. As a result of the availability of land in this area, it is being promoted by the government of Ghana for large-scale biofuel production and carbon projects. This has resulted in an influx of large-scale biofuel production and carbon developers/investors in Ghana.

Green capitalism and the global carbon market

The phenomenon of green land grabbing was first coined by Guardian journalist John Vidal (2008). The phrase green land grabbing has become a catch-all to analyze and critique the neoliberal logic of commodification and appropriation of nature, particularly through carbon trading mechanisms. It is used here to refer to the way in which land is appropriated by foreign governments, transnational institutions and corporations, elite and powerful individuals to meet an environmental end (Fairhead et al., 2014); a debate which already illuminates processes of accumulation and dispossession catastrophism. Green land grabbing manifests in various forms, including large-scale land acquisitions for biofuel production, conservation projects and carbon offset markets. Green capitalism seeks to reconcile capitalist accumulation with ecological dispossession (Lang et al., 2024). Green capitalism attempts to internalize ecological costs into market mechanisms rather than challenging the systemic causes of environmental degradation. That is to say, it reflects an increasingly dominant approach to environmental governance. The marketing and financialization of biodiversity offsets, conservation easements, and payment for ecosystem service are mechanisms through which green capitalism attempts to internalize and commodify carbon sequestration and emissions reductions into tradable assets. Key instruments of this transformation include REDD+ and international offset schemes such as those embedded in the Kyoto Protocol and Paris Agreement. The contentious Kyoto Protocol established in 1997 and expanded under the Paris Agreement (2015) introduced mechanisms that enable carbon trading firms from developed countries to offset for their carbon emissions by purchasing carbon credits from projects in the developing regions through the clean development mechanism (Lang et al., 2024). In this regard, Kyoto Protocol provided a working framework to carbon offsets markets, biodiversity offsets, conservation easements, and payment for ecosystem services (Kyoto Protocol, 1997; Lang et al., 2024).

The clean development mechanism (CDM) under the Kyoto Protocol allows the developed countries to receive Certified Emission Reduction (CER) credits by investing in emission reduction projects with the aim to achieve global emission reduction goals (Greenfield, 2023; Balmford et al., 2023). While there is a growing consensus that carbon markets promote efficiency, innovation, and investment in climate mitigation,

especially in the Global South, critical scholars see carbon markets as a function of neoliberal fixes to climate crisis (Mukono 2024; Balmford et al., 2023; Lang et al., 2024); neoliberalization of the environment is increasingly shaped by market-based logics, privatization, and deregulation (Power Shift Africa, 2023). Carbon markets shift the ecological burden to less powerful regions by preserving the privileges of high-emitting countries, multilateral agencies and transnational institutions and corporations. Carbon markets allow wealthy nations to continue emitting by purchasing credits from projects in developing countries, thereby reinforcing existing structural inequalities. The logic of purchasing credits from projects in developing countries transforms forests, grasslands, and soils into carbon sinks.

Abstract spaces of exchange in the context of commodification of carbon sequestration and emissions reductions severed from their cultural, historical, and spiritual significance. The process whereby land is appropriated in the name of environmental sustainability, often displacing Indigenous peoples and local communities has given rise to what one might call “green grabbing” (Fairhead et al., 2014). Global carbon market from a decolonial and political ecology perspective represents a continuation of colonial resource extraction, now mediated through environmental finance. Global carbon market sidelines plural ecological ontologies and local governance systems in favor of centralized governance arrangements that obscures the political dimensions of ecological degradation under a technocratic veil involving governments, multilateral agencies, transnational institutions and corporations (Gordon, 2022). Land appropriation for carbon offset projects has led to restrictions on land use and access, undermining traditional practices and livelihoods (Wambua & Otieno, 2022). This raises critical questions about land rights, ecological justice, and the commodification of nature as countries like Ghana becomes key sites for biodiversity offsets, conservation easements, and payment for ecosystem services. The global carbon markets, biodiversity offsets, conservation easements, and payment for ecosystem services thus become a new frontier of primitive capital accumulation under the guise of climate mitigation; one if not radically reimagined risks deepening environmental dispossession and ecological degradation. This paper frames capitalist carbon forestry activities as a tool to advance the long legacy of colonial and neo-colonial resource dispossession, camouflaged and masked as environmental management.

Green capitalism and carbon colonialism: Insights from Ghana

Activities leading to the commencement of REDD+ in Ghana began in 2007 when Ghana joined the World Bank’s Forest Carbon Partnership Facility (FCPF) REDD+ Readiness Programme to develop a national REDD+ strategy (Kansanga et al. 2020). In Ghana, green colonial capitalism and its current facets of green extractivism is deeply entangled with historical processes of land dispossession, capitalist expansion, and ecological degradation rather than a mere representation of new forms of environmental

management (Albers & Muhammed 2023). Ghana's case is unique and compelling for several reasons. Firstly, Ghana was one of the first African countries to pilot carbon market projects in the Ashanti, Volta, Brong-Ahafo and Northern regions of Ghana (Antwi-Bediako & Abubakari 2019). These communities are mainly farmers, hunters, and forest gatherers, make up 70% of the rural population of whose livelihoods depend largely on the forests. The country is frequently held up as a star pupil for operationalizing REDD+. Secondly, Ghana's complex and plural land tenure system makes it a politically rich site for studying how carbon markets interact with traditional governance systems (Kansanga et al., 2020). Thirdly, Ghana's customary land tenure system co-existing with statutory frameworks engender contestation, fragmentation, and negotiation in carbon-related land transactions. Fourthly, Ghana has relatively stable political institutions and active civil society compared to many other countries in the Global South— making it a compelling case to study participatory governance processes and localized resistance. Finally, Ghana's case offers insights into how strong partnerships with climate finance institutions like the World Bank, UN-REDD, FCPF (Forest Carbon Partnership Facility), and various European and American donors shape national environmental priorities in postcolonial settings.

The drive to implement REDD+ must be understood against the background of Ghana's challenge in addressing deforestation and forest degradation, primarily driven by unsustainable agricultural practices, illegal logging, and mining; this has included promoting sustainable forest management, carbon stock enhancement, and the conservation of biodiversity. Ghana's forest and savanna zones are now servicing the carbon accounting of wealthy nations and corporations, reechoing old patterns of extractivist logic, dispossession, and external control over Ghanaian ecologies (Johnson, 2021). The country's low-cost labor and vast agricultural landscape have attracted foreign investors (Amanor, 2024). Transnational corporations and foreign governments have seized large areas of land ostensibly for agribusiness, biofuel production and conservation in Ghana. In fact, approximately 90% of Ghana's lands are already grabbed, and in the hands of descendants of colonialists (Amoah-Nuamah et al 2023; Acheampong & Campion, 2014). Large-scale land deals by transnational corporations, foreign governments and elite individuals for purposes such as agribusiness, biofuel production, mining activities and conservation have disproportionately affected indigenous communities in Ghana (Antwi-Bediako & Abubakari 2019; Olarbi, 2024). Ghana's commitments to REDD+ implementation can also be seen through National Climate Change Policy (2013) and the National Forest and Wildlife Policy (2012) (Amanor, 2024).

Land grabbing for biofuels and conservation

Ghana is gradually becoming one of the havens for biofuel investments by both foreign and Ghanaian investors in Africa. Large land areas have been outsourced by traditional landowners as a result of biofuel production. The environmental benefits of biofuel include carbon emission reductions, increased fuel economy, reduction of dependence on fossil fuels. Biofuels are generally promoted as providing energy security, rural development and environmental protection (BioFuel Africa, 2008). The assumption is that Ghana has vast reservoirs of unused land that could potentially be converted into large-scale biofuel production. The local authorities concede land to powerful multinational corporations and foreign governments based on spurious arguments that it is not land takeover but the leasing out of land for economic development for the greater public good. In this vein, biofuel investment has become the new frontier to make profit for transnational corporations and foreign governments. Biofuels becomes the new frontier for energy sectors beset with declining productivity and/or rising costs (Kansanga et al., 2020).

Biofuel Africa Ltd, a Norwegian company was driven by the fear of rising and volatile fuel prices (Amoah-Nuamah et al., 2023). Biofuel Africa Ltd, formerly owned by a Norwegian company BioFuel AS acquired a total of 500 hectares of land particularly around Sogakope in the Volta and Yendi District in the Northern regions of Ghana for large-scale and mechanized cultivation of jatropha crop for biodiesel use in Ghana and also for export (Ahmed et al., 2017; Kipkoech et al., 2024). The BioFuel Africa jatropha project was intended to be the world's largest jatropha plantation for biofuel production. The project was marketed as a renewable biofuel and climate-friendly energy source; Jatropha plantation would potentially combat climate change. Biofuel Africa jatropha project strategy involved creating a vertically integrated biofuel operation, encompassing everything from cultivation to the export of crude jatropha oil for refining in Europe (Kipkoech et al., 2024). Large-scale biofuel production in the community of Sogakope and Yendi was supposed to lead to economic and social benefits like job creation, improve access to healthcare, infrastructure improvements and enhance educational opportunities for the local the vulnerable and impoverished peasants (Boamah & Overå 2016). Biofuel Africa Ltd project involving Jatropha cultivation was aimed at improving local livelihoods and reduce reliance on fossil fuels has faced significant criticism regarding its land acquisition and practices (Amoah-Nuamah et al., 2023). The vulnerable and impoverished peasants of Yendi who had relied on the land for employment and income have to return to traditional activities like shea nut production to find alternative livelihoods (Kipkoech et al., 2024; Knox et al., 2011).

Biofuel Africa Ltd was accused of dubiously obtaining land by deceiving illiterate local chiefs into signing agreements they did not fully understand. The vulnerable and impoverished peasants were hostile towards BioFuel Africa Ltd due to aggressive expansion and land clearing (Amoah-Nuamah et al., 2023). Promises of job creation and

shared prosperity were never met despite the destruction of valuable forest resources that the vulnerable and impoverished peasants depended on for income and subsistence (Kipkoech et al., 2024). BioFuel Africa Ltd initiatives in the peasant community of Sogakope and Yendi were abandoned despite initial enthusiasm for large-scale *jatropha* cultivation, leaving behind issues related to land use and displacement of smallholder agriculture. The company's operations in Ghana were marred by environmental and social challenges, leading to the eventual cessation of its projects. Biofuel Africa Ltd investments in Ghana as part of a green energy transition such as reforesting "degraded" land using the drought-resistant *jatropha* plant and combating climate change through renewable biofuel perfectly aligns with green capitalist discourse and the idea of market-based environmentalism. Green grabbing by Biofuel Africa Ltd masks ecological dispossession under the guise of technocratic language (i.e., "carbon credits," "degraded lands," "net-zero"), limiting community access. By reframing customary land as "idle" or "degraded", Biofuel Africa Ltd sought to justify external appropriation and dispossession catastrophism. The use of carbon accounting systems is green grabbing in practice, wherein foreign buyers and corporations are prioritized over vulnerable and impoverished peasants land users (Kissi et al., 2025).

Kimminic Estates Ltd (Canadian-owned), part of the Kimminic Corporations, which also includes Kimminic Oil Ltd (a biofuel refinery) and Kimminic Logistics Ltd, secured approximately 60,000 hectares in the peasant community of Bredi, Yeji, Pran, Atebubu and Dormaa Kesse in the Brong Ahafo region of Ghana for the production of biodiesel under leasehold titles of less than 50 years (Boamah & Williams 2017). Kimminic Estates Ltd has been developing *Jatropha* plantations and implementing water harvesting techniques such as dugouts to improve yields (Yaro et al. 2018). Kimminic Estates Ltd and its green grabbing in Ghana involves sustainable energy initiative that would seemingly help combat climate change through renewable fuel (Antwi-Bediako & Abubakari 2019). Kimminic Estates Ltd claims to "restore" unused or underutilized lands as a solution to land degradation. Promises of job creation, infrastructure (schools, roads), and food security through intercropping as part of the company's rural development strategy, aligns with global climate and sustainable development discourses—key features of green capitalist narratives. Kimminic Estates Ltd case exemplifies green grabbing where ambiguities in documentation made it difficult for the vulnerable and impoverished peasants to contest the leases (Abubakari et al., 2021). Legitimizing foreign control over ancestral land through environmental and development rhetoric is a clear case of green grabbing. Kimminic Estates Ltd case also exposes power asymmetries between customary custodians and local land users especially in Ghana's land tenure system (Antwi-Bediako 2018). The company bypassed traditional ecological custodians like earth priests or women's farming groups and families who actively used the land for their livelihoods. Communal lands and forested areas used for hunting, fuelwood and herbal

medicine were cleared for jatropha, leading to loss of land and livelihoods. Kimminic Estates Ltd project not only succeeded in dispossessing the vulnerable and impoverished peasants of their land but woefully failed both ecologically and economically. Despite the fact that the company abandoned most of the land by the early 2010 due to falling jatropha prices and lack of profitability, the land still remained tied up in long-term leases, effectively locking the vulnerable and impoverished peasants out of their own territories (Nakouwo & Zhang 2024).

ScanFuel Ghana Limited (ScanFarm) also owned by a Norwegian mother company is another key player in large-scale jatropha cultivation especially processing seeds into biodiesel (biorefinery) for export (Yaro et al., 2018). ScanFuel Ghana Limited (ScanFarm) obtained around 40,000 hectares at Asante Akim Agogo in the Ashanti Region under leasehold titles of less than 50 years. About 350 hectares were manually planted (Albers & Muhammed 2023). ScanFuel Ghana Limited (ScanFarm) acquisitions of large-scale land for jatropha production for biodiesel has raised serious concerns regarding their negative impact on the livelihoods of displaced smallholder farmers, land rights, food security and the potential for “land grabbing”. The promotion of biofuel has been linked to ecological dispossession with the vulnerable and impoverished peasants losing access to their traditional lands (Nygaard & Bolwig, 2018). While these companies secured extensive land rights, it is important to note that not all of the acquired lands were fully utilized for biofuel production. The biofuel boom in Ghana has led to conflicts among stakeholders, as lands fertile and actively used by local communities were acquired by both domestic and international entities through traditional authorities and Ghanaian intermediaries (Abubakari et al., 2020). The biofuel boom in Ghana incentivized indiscriminate land acquisitions, raising concerns about its impacts on the vulnerable and impoverished peasants’ livelihoods as well as their empowerment. Land grabbing is a response to increasing pressure to discover alternative sources of biofuels rather than petroleum-based fuels. The need for biofuels provided the motivation for large-scale land acquisitions in Ghana (Antwi-Bediako & Abubakari, 2019; Hughes, 2019).

Land grabbing for carbon project

The FORM Ghana reforestation project which focused on restoring degraded forest reserves in the Bono East and Ashanti Region is one notable project that aligns with carbon offset markets and green capitalism in Ghana. Dutch-Ghanaian forestry company and FORM Ghana Ltd in partnership with the African Development Bank (AfDB) and the Forest Investment Program (FIP), annexed the Asubima and Afrensu forest reserves supposedly for the purposes of sustainable forest plantation management (Abeney et al 2008). The FORM Ghana, a Verified Carbon Standard (VCS) or Verra reforested 20,000 hectares of degraded forest reserves in Ghana (Gaither et al 2019). The FORM Ghana managed large tracts of degraded forest land to establish monoculture teak plantations

and indigenous species marketed as a climate-friendly project that sequesters carbon and restores forest cover (Oduro et al. 2015). FORM Ghana exemplifies the intersection of reforestation, carbon trading, and neoliberal environmental governance with funding and support from international development banks, Dutch investors, and carbon offset schemes (such as the Clean Development Mechanism and Verified Carbon Standard). About 14,000 hectares of degraded forest land was acquired within the Asubima and Afrensu forest reserves in Akumadan in the Offinso North District in the Ashanti region (Abeney et al., 2008). Seven thousand five hundred (7,500) hectares were replanted with an additional 1,000 to 2,000 hectares for replanting annually. The project was expected to sequester over 850,000 tons of CO₂ emissions equivalent by 2025 (Asiyanbi et al., 2017, Saeed et al., 2018). The project was supposed to contribute to carbon sequestration efforts and generates carbon credits in addition to its environmental benefits.

FORM Ghana, as a Verified Verra-approved entity will sell these carbon credits to companies aiming to offset their emissions on international markets. Each credit represents one metric ton of CO₂ emissions equivalent reduced or avoided. FORM Ghana's reforestation project was to address the drivers of deforestation and support biodiversity. However, FORM Ghana's reforestation project exemplified the important role of carbon finance to create new carbon sinks. While the FORM Ghana reforestation and deforestation project presented itself as a model for sustainable land use in combating climate catastrophism, it raised several issues concerning limited access to land and traditional livelihoods. FORM Ghana's appropriation of land and resources for environmental purposes can be seen as part of a broader trend of green grabbing often driven by market incentives rather than local ecological or cultural values. The project's framing of land as a carbon sink and timber resource reflects deeper ontological conflicts with indigenous and customary conceptions of land as a relational and sacred space. FORM Ghana reforestation project also highlights how state's power facilitates access to land for private investors, while the vulnerable and improvised peasants' bear the socio-ecological costs.

Green grabbing impact is profound: it destroys forests, destabilizes the balance of the ecosystem and fosters conflicts in local communities. Beyond the environmental and social costs, green grabbing raises ethical questions about justice, governance, and what we owe future Ghanaians. The vulnerable and improvised indigenous peasants have been arbitrarily displaced and inhumanly dispossessed from their lands based on promises of job creation which woefully did not materialize. The expansion of green grabbing in Ghana has resulted in the dispossession of indigenous populations, leading to significant land acquisitions by transnational corporations and foreign governments. The phenomenon of green grabbing or accumulation by dispossession amounts to savage assault on the sovereignty and rights of vulnerable and improvised indigenous peasants (Gellert, 2015; White et al., 2012). The practices of ownership and sovereignty

of indigenous Ghanaian people ancestral lands is an attempt to restore their Africanity, Africanness and Afrocentrism. The importance of restoring Africanity, Africanness and Afrocentrism is critical to identifying one's social position in society, as well as knowing the ancestral memory and ancestral connections in precolonial Africa. There is a demand for redressing green grabbing wherein the vulnerable and improvised indigenous peasants seek to reclaim ownership and sovereignty over their ancestral lands (van Klinken 2019; Tremblay, 2016; Nhemachena, 2023). The rapacity of foreign transnational corporations and their governments inhuman dispossession and exploitation of ancestral lands perpetuate and brutally normalize disinheritance and impoverished indigenous peasants to ensure empire's continued existence and omnipresence (Obeng- Odoo 2016; Mheta, 2019).

In a world marked by savage dispossession and imperial exploitation in the form of carbon and biodiversity offsetting schemes, the vulnerable and impoverished indigenous peasants are being misleadingly encouraged to be resilient instead of putting primacy on how vengeful foreign transnational and foreign governments are callously dispossessing lands and even evade taxes and royalties to African states (Nhemachena et al., 2022). In a world marked by neo-imperial logics and practices of dispossession, the vulnerable and impoverished indigenous peasants are being misleadingly encouraged and exhorted to enjoy queer sex and practice good governance and universalism as a prerequisite of obtaining funds, while they conveniently neglect the more insidious structural violence inherent in (neo)colonial land and resource ownership structures in Africa. In a world where Euro-America and their foreign governments and transnational corporations are frantically involved in food-driven investments, biofuel production and mere agricultural speculation, dispossessed and exploited indigenous human beings are being recklessly encouraged to engage in the practices about democracy and human rights and so on, while paradoxically ignoring the democracy of owning and controlling one's own land and other resources. In light of the foregoing, we ask, what becomes of African Studies in a scenario where Africans are marginalized or rendered invisible by global capital? How does scholars reflect on African Studies foundations and its adaptability in the face of systemic exclusion? Global capitalist exploitative mechanisms have historically perpetuated systems that marginalize indigenous African population, contemporary economic practices and dispossession.

Ontological dispossession and the coloniality of nature

The phenomenon of green grabbing under framework of carbon markets policies are deeply rooted in coloniality, a system designed to subtract local agency by perpetuating ecocide (Sovacool et al., 2020). Projects like biofuel plantations and neoliberal forest conservation tied to global carbon markets legitimized through discourses of "sustainability" "climate action" or "green growth" mask their colonial-like effects

on indigenous land sovereignty and ontology. Increasingly, REDD+ and carbon market initiatives across Ghana have necessitated collision between technocratic environmentalism and indigenous ecological worldviews. Thus, in regions such as Ashanti, Brong Ahafo, and the Northern territories, carbon market initiatives have become a pivotal site of ontological struggle. The imposition of capitalist property regimes and carbon commodification in the context of green grabbing and carbon market projects in Ghana violently disrupts indigenous relational ontologies. The point in the foregoing is that schemes like REDD+ under the cloak of neoliberal logic introduces new property regimes that reconfigure how land is understood, governed, and inhabited (Cavanagh et al., 2015; Dunlap & Fairhead, 2014). While reducing emissions from deforestation and forest degradation is to mitigate climate change, the logic is inherently market-based and extractive, resulting in what John Vidal (2008) calls “green grabbing”. Appropriation of land and enclosure of spiritual/ecological landscapes due to carbon market initiatives constitute not only dispossession catastrophism through territorial appropriation but also importantly through ontological violence.

Ecological/ spiritual landscapes in Ghana are now repurposed for global commodity production or climate commodification. Corporate-led green colonial capitalism overwrites indigenous ecological worldviews with capitalist and bureaucratic logics by converting relational, communal, and sacred territories into commodified property or conservation zones. Enclosed, privatized or restricted sacred groves, family farms, and communal hunting lands for “climate mitigation” represents a form of ontological dispossession catastrophism (De la Cadena, 2015). Privatized or restricted sacred groves, family farms, and communal hunting lands for “climate mitigation” results in the disruption of long-standing spiritual and ecological relations to land, and the erasure of alternative ways of being, and the marginalization of customary governance systems. The marginalization of customary governance systems undermines the very terms of existence and belonging. Ecological and ontological dispossession catastrophism are enacted through deeper disarticulation of life-worlds and sovereignties and not merely through extractivism and land appropriation. The point of the foregoing is that extractivist projects, carbon markets, or conservation schemes through the enclosure of commons and sacred ecological landscapes effectively represent not only the material loss of land, but also the erasure of alternative ways of being and relating to place (Hicke et al., 2022). Cultural identity and relations are central to ontologies of land because it sheds light on how decolonized indigenous African subject facilitates sovereignty and ownership of ancestral lands (Klinken 2019). The imposition of Western, capitalist, and legalistic frameworks over plural, relational ontologies that are rooted in indigenous and customary cosmologies is termed ontological dispossession.

Arturo Escobar (2008, 2018) theorized ontological dispossession as the way in which neoliberal development paradigms strip land of its embedded cultural, spiritual and social

meanings. Modern development paradigms Arturo Escobar (2008, 2018) aptly argues, reduce diverse life-worlds and sovereignties to units of economic or ecological value. The modernist ontology for Escobar, presupposes a “One-World”: one dominant worldview in which a singular, universal understanding of land and nature as abstract, calculable, and commodified. Such singular and universal understanding of land and nature does not only change land use; they alter the meaning of land. Indigenous ecological and relational ontologies open many possible ways to overcome global injustices and green colonialism (Brand & Wissen, 2021); the upshot of the above is that indigenous ecological and relational ontologies offer different paths toward a world where many worlds fit and co-exist. The forest, sacred mountains, rivers, soil and landscape within the modernist worldview is a carbon sink, a biodiversity offset, or an investment asset rather than a sacred being or ancestral relative. Marisol de la Cadena (2015) building on this argument deploys the concept of the “pluriverse” to challenge the erasure of indigenous cosmopolitics. Her ethnographic work on indigenous communities particularly in Latin America (and other regions of the Global South) shows how environmental interventions seek to ontologically redefine the landscape, converting sacred mountains, rivers, and spirits into technical objects or zones of state governance.

Indigenous communities particularly in Latin America Marisol de la Cadena (2015) contends resist environmental interventions not merely because of material concerns, but essentially for ontological considerations. Similar dynamics are at play in Ghana. The designation of forest zones under the banner of development, conservation, or climate action (e.g., in the Ashanti region, Brong Ahafo and Northern territories) invalidate local beliefs and cultural practices that see land as a living and spiritual entity. However, these designated forest zones are subjected to modernist regime of valuation. In this sense, Leanne Betasamosake Simpson (2017) in articulating modernist regime of valuation in the context of indigenous resurgence and resistance argues that colonial dispossession is not merely about territory, but it is about the disruption and erasure of relationships: colonial dispossession disrupts and erases the relationships between people and land, people and ways of being, people and nonhuman kin. Colonial disruption and erasure thus cut off indigenous communities’ modes of reproduction, healing and governance; erasure therefore becomes a form of ontological severance. In indigenous and customary understandings of land in the Northern, Ashanti and Brong Ahafo regions, the interconnectedness between ancestors, land spirits, community rituals, and ecological stewardship is completely lost when land is leased to foreign companies through elite-chieftaincy alliances or governmental land banks. The Northern, Ashanti and Brong Ahafo regions subjectivity in relation to land has always been intertwined and intricately embedded in their relational ontologies.

The Northern, Ashanti and Brong Ahafo regions culture believe that there is a strong relationship between the living members of a clan and the dead/their ancestors.

Indigenous Akan people (in this case, the Ashanti and Brong Ahafo regions) embodied relations with ancestral land allow for subject/object and human/non-human modes of being and agency, and the mutual relationships with them. Indigenous and customary understandings of land in the Northern regions similarly emphasize land as ancestral, spiritual, relational and embedded in oral histories, seasonal rituals, and intergenerational kinship networks. As such, green land grabs are seen as a violation of such cultural beliefs and rights. Land is sometimes attached to religious/cultural spirits and dispossessing or change in ownership and usage can cause a curse to the indigenous population. In the cosmologies of Ashanti, Brong Ahafo and Northern territories, land is not just farming space, or biomass but embodied, spiritual, and cosmopolitical. The point here is that dispossession of land is obscured and masked by the language of science, law, and sustainability because this ontological displacement often operates invisibly (Tsing, 2015). Market-based conservation projects that frame carbon offsetting forests as quantifiable carbon stocks criminalize traditional land uses like farming, gathering, or ritual practices.

In fact, foreign transnational corporations and their governments not only work to secure just the planetary land and other resources but also treat the colonized and exploited African victims with disdain and gross disrespect in the sense of disregarding their ontological landscape. Thus market-based conservation projects require fencing, exclusion, and monitoring even if these actions displace entire communities. Ontological injustice and/or exclusion in this way, accompanies territorial appropriation and ecological dispossession. Ontological injustice and/or exclusion occurs when indigenous communities are present but their worldviews are not. This clash between ontologies raises fundamental questions about what futures are reimagined through environmental policy and who governs nature. In Ghana's forest and savanna zones, the path forward must involve not only the language of participation and benefit-sharing. The language of participation and benefit-sharing obscure these ontological tensions. A pluriversal politics that affirms diverse ways of being and relating to land is the path forward; pluriversal politics indeed recognizes the legitimacy of multiple ontologies and the right of indigenous communities to define, protect, and live within their own worldviews. For this reason, resisting territorial appropriation and ecological dispossession in Ghana requires not only treating indigenous cosmologies, customary land rights, and spiritual geographies as "cultural beliefs", but as valid ontological frameworks deserving respect and equal footing in negotiations over land.

Resistance and counter-narratives: Towards decolonial and political ecology frameworks

Reimagining alternative climate action requires decolonial and political ecology frameworks. The political and analytical standpoint that weaves through this paper considers the imbrications of decolonial critique and political ecology frameworks. Decolonial critique and political ecology frameworks enable us to understand how environmental governance projects such as carbon markets, biofuel plantations, and conservation initiatives have reshaped and reconfigured access to land critical for livelihood and cultural practices. Historical pattern of colonial power and capitalist expansion have always been associated with the phenomenon of green colonialism phenomenon (Bhambra & Newell, 2022). To be clear, the phenomenon of green capitalism or green extractivism cannot be adequately understood without appreciating how they are a product of exploitative histories of colonialism and neo-colonial imaginaries (Lang et al., 2024). The point is that the rise of green capitalism or green extractivism inexorably reflects a deep continuity with colonial logics of domination, extraction, and dispossession (Sultana, 2022). Market-based mechanisms like carbon markets, biodiversity offsets, and ecosystem services, despite its language of dealing with environmental crises, particularly in the Global South, reinscribes colonial relations of power under the guise of environmental stewardship. Decolonial thinkers such as Arturo Escobar (2008), Marisol de la Cadena (2015), and Walter Mignolo (2011) describe carbon markets, biodiversity offsets, and ecosystem services as perpetuating and legitimizing modernist ontologies of nature where forests, soils, and landscape are commodified.

This is contrary to indigenous Ghanaian worldviews where forests, soils, and landscape are not an inert commodity but a site of ancestral, spiritual, and communal relations. It becomes clear that market-based mechanisms like carbon markets, biodiversity offsets, and ecosystem services fail to question the modern/colonial foundations of the global economy. In Ghana, initiatives like REDD+ criminalized traditional land use practices, and the communities who have historically managed these ecosystems sustainably are marginalized or excluded from decision-making processes; decision-making processes are in the hands of states, powerful transnational corporations and foreign governments (Tsikata & Yaro, 2014). Decolonial critique with regards to Ghana reveals how extractive capitalism reproduces colonial patterns of primitive accumulation and ecological dispossession. In this respect, decolonial perspectives demand a radical rethinking of climate justice; one that unmask green colonialism and challenges Eurocentric narratives about sustainability and development and centre indigenous sovereignty: the decommodification of nature and relational ontologies. True decolonial climate action in Ghana would require significant transformations to reverse marginalization of indigenous

individuals by global capital's exploitative mechanisms. The point I am making here is that real and true ownership and sovereignty should include an urgent response to extractivist logic and colonial expropriation of indigenous Ghanaian people ancestral lands rich in resources by contemporary Western transnational corporations, foreign governments and institutions. In fact, decolonial scholarship urgently needs to address access to land and livelihoods in recapturing the past and creating ontological futures that resurge, nurture the culture, identity, and spiritual well-being of indigenous people (Lang et al., 2024). True decolonial climate action in Ghana would require rejecting the so-called market-based "solutions" that treat nature as a financial asset.

Alternatives to green colonialism exist in political and practical, and not only in intellectual; and this is increasingly characterized by coexistence and struggles, albeit often invisibilized and unrecognized (Cavanagh et al., 2015; Dunlap & Fairhead, 2014). Political ecology frameworks provide yet another powerful lens to explore power-laden nature of environmental governance, inequality and the socio-economic impacts of conservation and commodification (Robbins, 2012). Political ecology interrogates the intersections of environment, power, and inequality and how REDD+ is deployed to serve economic and political interests: it shows how REDD+ is deployed to perpetuate elite capital accumulation. The indigenous political ecology is constitutive of indigenous belonging to place (land) and of the responses – protests, resistance struggles and the contested spaces within which access to resources are being negotiated in the context of Ghana's REDD+. In the Ghanaian context, political ecology reveals how state institutions, global carbon markets, multinational corporations, foreign governments and development agencies reframe and reconfigure land as a financialized carbon sink or biodiversity offsets, and not as a communal and spiritual good. Political ecology shows that green grabbing in Ghana is about reworking of rural landscapes to fit neoliberal, capitalist, and colonial logics, and not just about environmental conservation gone bad. Decolonial thought and political ecology together foreground the contradictions, exclusions, and resistances embedded in the greening of capitalism through carbon commodification. Decolonial thought and political ecology framework provide critical lens to understand how marginalized communities resist or adapt to ecological dispossession (Valenzuela-Fuentes et al., 2020).

Indigenous Ghanaian forms of resistance are registered in this critique. The defiance of indigenous people of Ghana could arguably be interpreted as an attempt by marginalized indigenous communities to regain control over natural resources and ancestral lands. Their forms of resistance offer profound insights for reimagining alternative climate action in response to carbon market projects. It is necessary to note that indigenous communities especially among the Ashanti, Brong Ahafo and Northern region are creating counter-narratives that reassert and reaffirm relational ontologies of land (land as ancestor not commodity). To these communities, the forest, river, or farm

field cannot be defined in material or economic terms measured through carbon credits, agricultural productivity, or resource extraction values. Indigenous movements in Ghana respond to carbon credits and resource extraction through the reaffirmation of plural ecological ethics and not only through political resistance. They have shown that other climate futures are possible by calling for climate justice that values ecological plurality, relationality, and ecological sovereignty. Their plural ecological ethics recognize multiple ways of relating to the environment, where well-being is intimately tied to maintaining relationships with ancestors, spirits, and non-human kin. The point is that revival of traditional rites connected to land, strengthening customary land tenure systems and initiatives such as community-led conservation reflect broader attempts to safeguard a vision of well-being that cannot be captured by neoliberal conservation schemes or carbon markets (Boamah 2011).

Ghanaian civil society organizations and researchers alike have questioned the social, ecological, and ethical implications of carbon markets. Civil society organizations such as Environmental Protection Association of Ghana (EPAG), Forest Watch Ghana (FWG), Friends of The Earth–Ghana (FOE), Ghana Association for the Conservation of Nature (GACON), Ghana Wildlife Society (GWS), and Rural Environmental Care Association (RECA) employed noncompliance and sometimes, direct confrontation against wanton land grabbing in Ghana. (Awuah-Nyamekye, 2018). These civil society organizations view the concept of carbon credits as one of greenwashing initiatives essentially because of concerns about land grabbing and inequitable distribution of responsibilities under global climate agreements like the Paris Accord (Action Aid, 2009). They argue that carbon offset tree planting projects supposedly to preserve forests, restore carbon in depleted soils and ecosystems with the ambition to remove carbon from the atmosphere further patterns of extractivism and neocolonialism where communities in the Global South are sacrificed for the continued profiting of Big Polluters. The Youth Climate Council Ghana (YCC), an umbrella body for climate-focused groups has mobilized opposition against the redirection of carbon market funds to non-climate related projects such as Members of Parliament pensions, viewing this as a complete misuse of climate finance. The Ghanaian indigenous communities promote alternative ecological practices such as agroecology and community forestry, outside of carbon markets. Agroecological movements in Ghana (like those affiliated with Food Sovereignty Ghana) in response to top-down mitigation efforts promote community-owned reforestation outside the carbon market logic.

Grassroots movements in the Brong Ahafo region, for instance have mobilized against biofuel projects by reclaiming stolen farmlands and reviving communal land stewardship practices. Food Sovereignty Ghana (FSG) is a civil society organization (CSO) that advocate food self-sufficiency, security and safety in Ghana has partnered with pan-African climate justice networks such as the African Climate Justice Alliance to

challenge and question commodified climate solutions. Traditional leaders and peasant farmers articulate alternative climate imaginaries based on oral history documentation to assert customary boundaries and ancestral claims. Ghanaian indigenous actors frame their opposition not simply in economic terms, but in defense of their ecological sovereignty and indigenous cosmologies. Indigenous ontological critiques offer lens for reimagining alternative climate justice, sovereignty, and indigenous land ethics. Indigenous Ghanaian community's forestry and communal water management rejects the linear developmentalism and neoliberal logic embedded in most carbon finance. In this regard, it is contended that reimagining post-carbon and pluralistic ecological futures that prioritize justice over profit requires understanding and supporting indigenous resistance. This paper thus argues that resisting land dispossession in Ghana is an ontological and ethical struggle to preserve diverse, relational worlds: diverse, relational worlds where ecology, spirituality, and kinship are inseparable and not merely a material struggle. What is clear however, is that resistance and re-existence constitute (re)imagining and building of another world. It is in these that the most solid alternatives to green colonial capitalism lie.

Conclusion

This paper interrogated the paradoxical ongoing land grabbing in Ghana to explicate how transnational companies, foreign governments and international institutions or elite individuals are engaged in the 21st century second scramble for Africa. The contemporary face of green land grab has seen transnational corporations and foreign governments blatantly and callously dispossessing and robbing indigenous Ghanaian people of their ancestral lands. Callous land grabbing has profound impact in dispossessing and expelling indigenous people from their ancestral lands. The acquisition of land for biofuel production and carbon markets have profound impacts on local communities and has the potential to exacerbate and worsen the unemployment situation of indigenous Ghanaian people. The much-preached win-win situation in land "deals" is a farce since they are a travesty characterized by little or no depth. Lack of participation of indigenous Ghanaian people before the rolling out of such dispossession thus points to ontological exclusion. Green land grabs are aimed at helping other parts of the world. Carbon markets in Ghana offer a cautionary tale to challenge the commodification of nature and ecological imperialism; it amplifies grassroots resistance and decolonial alternatives to environmental governance. Building a truly sustainable and just climate futures effectively entail the promises and perils of green capitalism extractivism. Conservation initiatives as a form of "green grabbing" underscores the need for inclusive strategies that respect the rights and ways of being of indigenous Ghanaian people. The intent of conservation initiatives is to create protected areas. While conservation initiatives seek to preserve biodiversity and combat climate change, it is done without adequate consultation or compensation for indigenous

populations residing in these regions. The exclusion of local communities from decision-making processes dispossesses indigenous population of vital resources and ancestral lands, thereby eroding cultural identities and livelihoods. Equitable environmental initiatives must recognize and protect the land rights of local communities to prevent unjust displacement and loss of livelihoods. To ensure that environmental projects in Ghana do not perpetuate green grabbing, it is crucial to involve indigenous populations in the planning and implementation of environmental projects to ensure that their needs and rights are addressed. Environmental projects must provide adequate compensation and alternative livelihood options for affected communities.

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