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Carbon colonialism and the new land grab: Plantation forestry in Uganda and its livelihood impacts

Kristen Lyons [a, *], Peter Westoby [a, b]

[a] School of Social Science, University of Queensland, St Lucia, Queensland 4072, Australia
[b] University of Free State, South Africa

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A B S T R A C T

Private sector investment has become increasingly central to development in the global south, and in recent years these interventions have taken a 'green' turn. This is demonstrated via investment in economic activities associated with environmental claims, including plantation forestry and carbon trading initiatives. Many of these green initiatives represent market-based responses to climate change that rely upon the implementation of mitigation strategies in the global south to offset industrial and polluting activities in the global north. In this paper we explore the activities of Green Resources, the largest plantation forestry operator on the African continent.

Through an examination of the activities of Green Resources in Uganda, this paper argues that while private sector international investment in plantation forestry for carbon offsetting is widely supported as responding to the nation's environmental crisis, it is part of a carbon colonialism and neoliberal land grab. There are profound adverse local livelihood outcomes that arise on the basis of this carbon colonialism. After discussing these themes in turn, this paper concludes that the commodification and fetishing of carbon via global carbon markets disconnects northern-based carbon credit consumers from adverse local livelihood impacts for those living in, and adjacent to, forestry plantations. These impacts point to the limits of north–south market-based green development interventions as solutions to climate change.

1. Introduction

Private investment has become a 'new salvation' for world development in the global south. Commitments 'to this faith' are strongly articulated in relation to the African continent, where the food, agriculture, timber, biofuels, oil and mining sectors – backed by claims that promise strong economic returns – have become significant targets for private investment activities (McMichael, 2013; Carmody, 2013). In a world of climate change, much of this international private sector investment is now associated with 'green' forms of development; demonstrated in the expansion of investment activities that make claims to environmental benefits and/or sustainable development, including carbon offset and other mitigation initiatives. The so-called bio-economy – referring to market-based activities that reduce complex ecosystems, as well as the socio-political contexts in which they are situated, into biomass – is widely championed as a win-win-win strategy that will deliver positive economic, environmental and social outcomes at the local level, and its expansion is part of a broader neoliberal conservation of nature.

In this paper we examine the confluence of policy, discourse and other mechanisms that provide the enabling conditions for privatized green development. We take the case of plantation forestry as one example of bio-economic development on the African continent to demonstrate the links between neoliberal conservation and the privatization of land and forestry resources. Through our case study of one of the largest plantation forestry companies on the African continent, the Norwegian owned 'Green Resources', we demonstrate privatized plantation forestry as one form for enabling contemporary carbon colonialism and a neoliberal land grab. Our research findings also contribute to the growing body of literature that documents the livelihood impacts of neoliberal enclosures. While Green Resources operates in four countries, we examine their activities in Uganda, where the company holds two licenses for the production of timber and the sale of carbon credits. Given the scale of Green Resources' operations, and alongside the

* Corresponding author. Tel.: +61 437332732.
E-mail address: kristen.lyons@uq.edu.au (K. Lyons).

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expansion of plantation forestry for timber and carbon offset in Africa, our case study provides insights related to the local level impacts of plantation forestry and carbon markets that may provide insights elsewhere.

On the basis of our findings, we conclude by arguing that carbon markets fetish carbon, demonstrated in the disconnection between northern carbon offset markets and the adverse local livelihood impacts associated with the neoliberal enclosure of land for forestry plantations. As a result, the livelihood impacts of this neoliberal land grab are relegated to the margins as externalities in the burgeoning global carbon economy.

2. Background

Framed in terms of environmentally responsible forms of socio-economic development, the global bio-economy is characterized by investment in carbon-offset (and other) projects that frequently links investors from the global north with smallholder and peasant farmers in the global south. There is plenty of hype about bio-economic forms of development, including by the World Economic Forum, who predict biomass will generate $300 billion in profits by 2020 (ETC Group, 2010). In response to such estimates, there is rapidly expanding private sector investment in green bio-economy related development interventions.

Forests and plantation forestry are amongst sites being targeted by investors, with foreign investors now playing a dominant role in African forestry in particular, and backed by government uptake of industrial forest and land management models (German et al., 2014). The FAO estimate plantation forestry, in particular, has grown by 48.1 percent between 1990 and 2010, including dramatic growth on the African continent. These conditions have led some to conclude that Africa will be the central hub for plantation forestry by 2022 (Kroger, 2013). And given the increasing allocation of concessions to private sector international interests, it can be expected that global private interests will dominate the governance and management of African plantation forestry; conditions Kroger (2014) describe as a 'Forestry Empire', with outcomes that shift land rights, access and livelihoods.

In this context, local and indigenous knowledge of and approaches to forest management has been largely replaced by scientific logic and management regimes. The introduction of modern forestry regimes is legitimized by policy, industry and other narratives that re-define forests as 'unproductive', 'under-utilized', and empty, or as *terra nullius*, the outcome of which denies the centrality of forests to local livelihoods (German et al., 2014; Makki, 2013).

The introduction of scientific industrial forestry management approaches – including largescale monocultures – has occurred alongside the burgeoning of forest and forestry related ecosystem services markets. Previous literature has identified mitigation against climate change as an important component of these market mechanisms (Fairheard et al., 2012). Leach and Scoones (2013) have described carbon markets, an exemplar in climate change related ecosystem services, as being based upon the premise that carbon is a commodity that is able to be priced and traded. This neoliberalisation of nature (Fairheard et al., 2012; Büscher, 2013) extends a reductive logic by assuming that carbon sequestration that takes place in one part of the world is able to offset carbon pollution elsewhere.

However, the reduction and transformation of forests and forestry systems into disembodied and dislocated commodities disconnects carbon (and other forest products) from the broader ecosystem and carbon cycle in which it is situated. In so doing, it facilitates a rupture between the site of nature's production value (that is, a forestry plantation and carbon sequestration as part of the carbon cycle) and its consumption (that is, the purchase of carbon offsets). The outcome of this renders carbon a commodity fetish (Lohmann, 2011); given the disconnection between the social, ecological and economic contexts in which carbon is produced and consumed. More specifically, this fetishing disconnects carbon markets – including the buyers of carbon credits – from the lived realities of those whose livelihoods are directly affected by the socio-political and ecological basis of the carbon economy (Tienhaara, 2012).

The privatization and commodification of forest resources facilitates carbon colonialism. By this we refer to the new constraints ushered in by the carbon economy, including the rupture in historical land law, thereby constraining local community usufruct rights to land and forest products (German et al., 2014). The outcome of this rupture serves to reinforce economic inequalities by denying local access to land, with outcomes that some refer to as a neoliberal land grab (see for example Borras et al., 2012; Fairhead et al., 2012). In utilising the term 'land grab', we acknowledge the contestation related to its meanings and use, including the methodologies by which the phenomena has come to be measured and understood, or what is widely referred as 'the politics of evidence' (Scoones et al., 2013). Alongside these concerns related to the methods underpinning the 'literature rush' on this topic in recent years, Edelman (2013) and Oya (2013), amongst others, have called for on-going research to ground in effective and detailed long term research methods. This epistemological debate not withstanding – and the related debate about use of the term 'land grab' – the form and processes of the carbon colonial land grab are enabling industrialized countries to maintain high levels of carbon emissions on the basis of their offsetting activities, while restricting development options for those where offset activities are located (Bottazzi et al., 2013).

Previous research in this field has identified the extent to which the activities of private investors might constrain local and indigenous rights, with findings that demonstrate the extent to which local people are expected to bare the costs of green development interventions (see for example Daniel and Mittal, 2010; German et al., 2014; Bottazzi et al., 2013). As stated within the introduction, our work contributes to this growing body of literature, by scrutinizing the local level consequences associated with putting a price on carbon in the African context. Our findings add to the literature that finds climate change mitigation strategies that focus singularly on carbon, including reducing emissions from deforestation and forest degradation, over emphasize the importance of carbon sinks, while overlooking broader livelihood outcomes.

3. Conceptual framework – privatizing and greening development

Understandings of the pathways to achieve socio-economic and environmentally responsible forms of development, and the very premise of 'development', have taken many different routes over the last century. While the post World War Two period was characterized by supremely confident visions of rapid industrialization and social transformation, such ideas were abandoned by the 1970s and 1980s as policy makers and critical thinkers reached for new models of development. Seminal authors such as Baran led from the left, critiquing Rostow-like assumptions and hopes that centralized economic growth and modernization. Baran's work was built upon by the likes of Gunder-Frank, $A_{\min}$, Cardoso, Sunkel, Brenner and Palma. However, by the mid-1980s these left critiques fell out of favour, and by the end of the 1980s – not withstanding the emerging ecological critiques of development triggered by Carson's classic *Silent Spring* (1962), alongside feminist critiques from Boserup and others – the World Bank and so-called Washington Consensus emerged as normative and persuasive.

Since then, however one wants to name it, there has been a rich literature that has examined, both appreciatively and critically, what can be broadly construed as the 'privatization of development', which is clearly poignant to the arguments of our paper This literature, flourishing in the 1990s and 2000s emerged around what has been understood as the 'project of globalization' and its accompanying liberalization. With the World Bank and Washington Consensus at the forefront focused on elements of privatization within structural adjustment programs, the literature has tended to focus on either policy-oriented questions – for or against such privatization and liberalization (Parker and Kirkpatrick, 2005), on the role of social movements or other forms of public resistance to privatization (e.g. Hall et al., 2005; McKeon, 2013), or on the role of the state (see for example, Wolford et al., 2013).

More recent analytical work has focused on ideas such as what McMichael calls the *episteme* of market rule within the orthodox development paradigm – a set of logics and worldviews shaping most norms and practices of policy makers (McMichael, 2010). Within the frame of the Washington Consensus such an episteme ensures 'capital integration as the *sine qua non* of globalization' (McMichael, 2009, p258). Within this lineage of analysis other literature has focused more on the norms, practices and principles of neoliberal capitalism and the central role of private companies within this configuration of the political economy (e.g. Amin, 2012). For example, Amin argues in a recent article that neoliberal capitalism, or what he calls 'crony capitalism', is based on the following set of principles: the economy must be managed by private agents as their 'natural' role is 'beneficial to society and ensures economic growth for all'; 'so-called public services … must be privatized as much as possible'; 'fiscal function should be reduced to the minimum necessary to cover only state functions'; 'credit management must be assumed by private interests' and so forth (see Amin, 2012, p1). Astutely Amin also notes, which is of importance for the theoretical framework of our paper, that such principles, 'must be implemented not only at the level of all nations of the globalized world, but also in international relations … at a global level.' He then goes onto argue that, '(p)rivate foreign capital must move freely and be treated on an equal footing with local private capital' (Amin, 2012, p1). Again, the Ugandan based case study analysed in this paper highlights some of the consequences of foreign private companies becoming key players within the globalizing political economy.

Pointing to new thinking in this field, some recent analyses have focused not so much on the process or role of 'privatization of development' per se, nor neoliberal capitalism, but instead on the 'larger assemblage of elements' (Sassen, 2013, p25) that has enabled such privatization. For example, Sassen (2013, p25) argues that the practices, norms and shifting jurisdictions within which land grabs occur are indicative of a more significant and larger structural shift occurring within contemporary global modernity. For her, such a shift is indicative of on-going processes of disassembling of national territory. While previous waves of globalization and structural adjustment have 'emptied the state of capacity', for Sassen, the latest wave is disassembling not only the state but also national territory. This disassembling of national territory marks something new, assisting to explain significant spikes in foreign investment activity post 2006 (especially in the African context).

In sum, the privatizing and globalizing of market economies, as well as the decline of national sovereignty and state capacity, have created the conditions for the deepening of foreign investment. There is then a positive feedback cycle in which such investment leads to an increased 'debt regime'. This creates the conditions for weakened and poor states to further disassemble national territories, thereby further enabling and legitimizing foreign investment.

The privatization of development has, in particular, impacted discursive and material approaches to understandings of the causes of, and responses to, development-related environmental issues and challenges. Growing recognition of development-related environmental issues were accentuated during the 1970s, and articulated in publications such as 'The Limits to Growth' (1972) and later 'The Brundtland Report' (1987). While 'Limits to Growth' was seminal in identifying the ecological limits and finite capacities of planet earth, The Bruntland Report introduced sustainable development as a framework to ensure environmentally responsible forms of development could balance the triple bottom line of environmental, social and economic sustainability. By the 1990s, however, 'sustainable development' faced growing criticism. In response, emerging approaches to environmentally responsible forms of development came to be increasingly identified as reliant upon market-based initiatives. These new market-based approaches, or what Sharife and Bond (in Fairhead et al., 2012) refer to as "environmentally financialised markets", are demonstrative of the broader neoliberal turn we have described above, and which point to the conditions that are relevant to our case study (as per the next section).

The literature above lays a platform for understanding the 'privatisation and greening of development', the conceptual framework for our paper. We now turn to consider these twin processes – privatisation and greening of development – in Uganda's plantation forestry sector, the context for our research.

3.1. Context setting 1: privatizing development in Uganda

While the forms and outcomes of privatization, including international finance flows in green development initiatives, are global phenomena, in this paper we explore these in the Ugandan context. In Uganda, and similar to elsewhere, 'foreign investment for development' has been championed and institutionalized via processes and policies at both the international and national levels (Mamdani, 1987). At the international level, structural adjustment and trade liberalization programs have integrated Uganda in the international economy, creating new forms of dependency and obligation. Meanwhile at the national level, a number of programs introduced since the 1980s have facilitated the liberalization and privatization of national economic activities. The introduction of the 'Economic Recovery Program' in the mid 1980s, for example, aimed to transition Uganda from a peasant to modern industrial economy (Wiegratz, 2010). This occurred alongside the introduction of new 'business friendly laws' related to investment, as well as the privatization of most state owned businesses. The expansion of international investment has also been supported by a number of other institutional mechanisms, including the Constitution of the Republic of Uganda (1995, and amended 2005), which provides legal policy and infrastructure for private investment, as well as the Uganda Investment Authority and the Uganda Revenue Authority, each established to assist foreign investors (Bomuhangi et al., 2012).

By the early 1990s, and alongside these international and national processes and policies, the United Kingdom, Kenya, India and South Africa had established as significant investors in Uganda (National Department of Agriculture, 1998). In recent years this has expanded to include investments from the United States, China, Malaysia, Norway and the Gulf States, amongst others, who have identified new opportunities for capital accumulation via the finanalisation of Ugandan commodities and natural resources (see also Sassen, 2013).

National commitment to foreign investment for development – including investment in green development initiatives – was articulated in the 2012 Presidential State of the Nation address. Here, President Museveni described foreign investment as vital for the modernization of Ugandan agriculture, and labelled dissenters of this paradigm as "enemies of progress". Despite the wide institutional and political support for privatizing development and increasing foreign investment, Wiegratz (2010, p. 128) has described these economic reforms as being driven by particular interests; including a domestic power elite and foreign interests committed to "the unregulated market is best" doctrine.

3.2. Context setting 2: deforestation and Uganda's plantation forestry

National State of the Environment reporting documents that Uganda's environmental – and related social and economic – problems are significant. Soil erosion and declining soil fertility, deforestation, pollution of land, water and air resources, loss of biodiversity and over-harvesting of forests, fisheries and water resources, have all been identified as on-going challenges that require urgent action (State of Environment Report, 2006/7; Wambi, 2012). These conditions are exacerbated in the context of climate change, posing profound problems and challenges, particularly for Uganda's poorest.

The National Forestry Authority (NFA) has identified declining forest cover – estimated by the World Wildlife Fund as occurring at a rate of around 6000 ha each month (WWF Global, 2013) – as a primary environmental challenge. And while the loss of forest cover on public land is occurring at an alarming rate, the extent of clearing is estimated to be much higher on private land; with Bakiika (2013) reporting deforestation of private land being up to eight times the rate as that which occurs on public land. Deforestation is also linked to other environmental problems, including soil erosion, biodiversity loss and climate change. Given current rates of clearing, Norwatch (2011) has warned that Uganda will face acute timber shortages within the next 10 years. Yet many consider the situation is already dire.

In Uganda, forests and plantation forestry occupy around 4.9 million hectares of total land, of which 1.26 million hectares is government land designated as Central Forest Reserves (CRCs) (or 38.9%) (National Environmental Management Authority, 2007). With the status of national parks and wildlife reserves as protected areas, and that private land is (largely) non-accessible, CFR's have become a primary focus of Government re-afforestation efforts. Private investment is now identified by Central Government as a strategy to enable afforestation, and is consistent with Uganda's market-based and privatized development approach (National Forestry Authority representative, 2012). For example, NFA policy documents describe foreign investment in plantation forestry as creating local employment and economic growth (NFA, 2005). In terms of policy initiatives, the National Forestry Policy (2001) and the National Forestry and Tree Planting Act (2003) also articulate support for private investment in forestry development.

This policy-enabling environment is associated with the expansion of private sector investment in Uganda's forestry industry. Since at least 2005, international private sector investment has supported the establishment of an estimated 100,000 ha under forestry plantations in Uganda, a figure NFA aim to increase up to 250,000 ha by 2050 (National Forestry Authority representative, 2012).

Foreign investors have established forestry plantations for both timber and carbon trading. These afforestation activities are occurring on what the NFA has re-designated as '*degraded* Central Forest Reserves'. While a NAPE representative agreed that in many instances forest reserves were "degraded" – and should be labelled as such – he explained that often this re-designation was a result of complex and inter-related historical, military and other factors – which may or may not relate to levels of forest cover (and almost certainly occurred while under the jurisdiction of the government that allowed, either through indifference or mismanagement, the degradation to occur).

The designation of central forests as 'degraded' is a prerequisite for enabling international investor's to obtain a license to operate on what would otherwise be protected public land. Nel and Hill (2013) have conceptualized the re-designation of CFR's as 'degraded' as the application of scientific logics to (re)-interpret the quality of territory so as to enable green and bio-economic forms of development.

To examine the livelihood impacts associated with the privatization of Uganda's plantation forestry we now introduce the case study of this paper – the Norwegian owned plantation forestry company Green Resources – and describe the research methods on which the data presented in this paper was gathered.

4. Case study and methodology: green Resources

Green Resources is a private Norwegian company engaged in forestry plantations, carbon offset, forest products and renewable energy. It is engaged in activities in Mozambique, Tanzania, Uganda and South Sudan, and is now recognized as the largest plantation forestry operation on the African continent, having invested over NOK600 million ($US100 million, converted May, 2014) in tree planting in Africa (Garberg, 2012; Nel and Hill, 2013).

In Uganda, Green Resources has obtained licenses to engage in plantation forestry in two degraded Central Forest Reserves; the Bukaleba Forest Reserve in Muyuge District in eastern Uganda, and the Kachung Forest Reserve in Dokolo District, northern Uganda. At Bukaleba, Green Resources also operates under the name Busoga Forest Company, while at Kachung it is known as the Lango Forest Company (and previously the Norwegian Reafforestation Group).

The Busoga Forest Company established in Muyuge district in 1996, and according to its license agreement with the Ugandan Government has 4500 ha of plantable area. The Bukaleba plantation is certified by the Forest Stewardship Council, and was validated and verified as an Afforestation and Reforestation project under the Verified Carbon Standard in 2012 (Green Resources, nd).[1]

Meanwhile, the Lango Forest Company recently completed planting 2221 ha from its 2669-ha license in the Kachung Central Forest Reserve. Like the Busoga Forest Company at Bukaleba, the majority of this is under monoculture stands of pine and eucalyptus. The Kachung Forest was Green Resources' first Clean Development Mechanism (CDM) project, and carbon credits have been sold to the Swedish Energy Agency with a contract that spans between 2012 and 2032, and estimated as worth over US $4 million. The Kachung Project was validated under the CCBS (Climate Community and Biodiversity Standard) in 2011 (Green Resources Representative, 2013).

Primary data collection for this research took place during two main field visits at both Bukaleba and Kachung Central Forest Reserves, and split over a year. The first involved interviews and focus

[1] The current volume of carbon credits at Bukaleba Forest is 25,350 VCU's, and the project is expected to deliver 100,000 t CO_2 from 2012 to 2015. Green Resources have also recently established a charcoal plant using timber from Bukaleba (with funding from the Nordic Climate Initiative), and claim this will enable a further reduction of 15,000 t of Co_2 each year through more efficient charcoal production.

group discussions between June and July in 2012. The second involved interviews and focus group discussions between July and September 2013.

The research methods for data collection included both secondary and primary methods. In terms of secondary data, it included the collection of documents including annual reports, policy documents and company publications. Primary data collection involved interviews with representatives from central and local government, environmental non government organizations, journalists and company representatives. It also included focus group discussions in nine villages affected by Green Resources' forest related activities (with between seven and 30 people in attendance for each focus group). Three of these villages are located in the license area at Bukaleba, while six villages are located on the edges of the plantations at Bukaleba and Kachung. In total we have talked to around 150 community members living in or adjacent to the plantation forestry sites.

Given the scale of Green Resources' activities, our findings may be expected to be demonstrative of broader trends associated with expanding plantation forestry for carbon offset elsewhere on the African continent, however further research will be necessary to examine these parallels.

5. Findings

In discussing our findings three central themes have been distilled that relate to the core purposes of this article. The first relates to the widespread commitment to privatization as a way of responding to Uganda's environmental crisis; the second to critiques of this commitment and the private sector actors involved; and then thirdly, the livelihood impacts of what we call carbon colonialism, focused on the experiences of communities affected by Green Resources. Each is now discussed in turn.

5.1. Privatizing Uganda's plantation forestry

We start by drawing from empirical data to demonstrate the neoliberalization of Uganda's plantation forestry, including the privatization of land and natural resources. This was understood as occurring in the context of an environmental crisis, whereby it was argued that the private sector was most capable of responding.

There was little doubt amongst the various actors with whom we spoke that Uganda faces acute environmental challenges, with logging and deforestation foremost amongst these. Yet there was recognition, too, that reducing rates of forest clearing was constrained by a number of international and domestic dimensions and factors, including debt regimes, the limited availability of funding and other vital resources (including infrastructure and vehicles), alongside poverty and food insecurity. A representative from the National Environmental Management Authority (NEMA) articulated the interconnections between some of these issues, and explained that reafforestation efforts were part and parcel of addressing broader livelihood challenges:

> Tree planting … actually that's one of the many things that people have hopes in, and generally if you look at our country there's been a lot of deforestation. The rate of deforestation per year is about two percent and in other districts it's actually much higher than the two percent … People depend on wood … Tree planting is very important for energy requirements (NEMA representative, 2012).

Yet despite what appeared as unanimous recognition of the vital importance of sustainable forest management – and articulated in the Tree Planting Act via a commitment to increase tree cover – both local environment officers in Mayuge and Dokoko districts, as well as Central Government representatives from the National Forestry Authority (NFA), lamented they were under-resourced to enforce local environmental laws that might protect remaining forests, or to fund wide scale re-afforestation efforts.

In this context, representatives from the National Forestry Authority (NFA), the National Environmental Management Authority (NEMA) as well as a district environment officer described ‘public/private’ collaborations as central to green development initiatives in general, and those related to forests and forestry plantations in particular. One NFA representative described the importance of such partnerships: “If we don't have international investment, we will lose our forests”, and added that “partnership with the private sector was a means of reforesting the country”. In addition to driving re-afforestion, international investment was also heralded as creating multiplier affects, including payment of taxes and investment in local infrastructure (such as roads, schools and hospitals).

Similar optimism about international private investment was articulated by a number of local district representatives to whom we spoke. We heard stories at both Bukaleba and Kachung of foreign investment creating new local employment opportunities, as well as assisting in the provision of vital services, including construction of a children's health ward and provision of medicine to health clinics, road maintenance, and a young girls educational scholarship program. Yet these corporate social responsibility activities were also criticized as being disconnected from the needs and aspirations of local community members. We heard, for example, most community members despair that secure access to land represented their most urgent issue, and as being a vital prerequisite for ensuring food security. Many of these same community members described the expansion of Green Resources' plantation forestry as antithetical to this; with precious food producing land literally being taken over by plantation trees. One local leader from Dokolo district in northern Uganda backed these community concerns, stressing that foreign investment activities should always be win/win, and explained that foreign investment “must also benefit local people, not just the investor” (Local Government representative, Dokolo District, 2013).

5.2. Concerns with privatization

There were many concerns that Green Resources was able to garner the economic benefits from plantation activities, including participation in carbon markets, at the expense of local communities. ‘Public/private’ partnerships for reforestation were also often described as a euphemism for handing over public land and commonly accessible natural resources and assets to private interests for profit making.

And while many of the government representatives with whom we spoke described the license agreements between central government and private sector interests as delivering environmental benefits at the local scale, some NGOs lamented the licenses also exacerbated environmental problems. One representative from the National Association of Professional Environmentalists (NAPE), for example, described this ‘financialisation of nature’ as enabling international investors to flout national environmental and other laws:

> You find that when they are operating in their mother country, their standards are high. There is a higher bar standard. But when they come here they lower their standards: in term of human rights violations; in terms of benefits to the community;

> in terms of social responsibilities; in terms of respecting the local laws. For them, they respect a lot of their own laws. But here, they flout almost all of the laws.

This was backed by another civil society representative, who articulated his concerns related to the power yielded by international investors in Uganda:

> If you are an investor here, the law can be bent. If you come and call yourself an investor, then most of the laws can be bent to suit your interest. So that is a very, very big challenge for conservationists here … This has frustrated conservation efforts in this country. . When somebody tells you "I want to put sugar cane here", because you are called an investor, he will say, "slash the forest". So that is the bad part of our so-called investors. They come, yes they give employment to our people, but in terms of destruction of natural resources they are very very harmful. Very harmful" (National Association for Professional Environmentalists representative, 2012).

One representative from NEMA also described an inconsistency in the ways licenses to operate in Central Forest Reserves were allocated. For example, he lamented that while it was well known that NFA issued licenses on Central Government Forest Reserves for forestry plantations, they also issued licenses to international investors for the construction of industrial parks, factories and tourist hotels.[2]

The process of issuing licenses to private sector actors to operate in Central Forest Reserves is demonstrative of what some described as the devolution of responsibility for environmental management to private sector actors. In this way, private sector actors such as Green Resources are now enrolled in driving strategies to address national social, economic and environmental problems, including those identified in State of Environment reporting. Whether private sector actors and market-based mechanisms will be able to address Uganda's complex socio-economic and environmental problems is a point of palpable tension; demonstrated in on-going disputes between government, environmental groups and local communities (see for example Friends of the Earth International, 2012; Tenywa, nd).

A number of tensions emerging from our empirical evidence are demonstrative of concerns about the place of private sector actors in governing Uganda's environment, including plantation forestry and central forest reserves. Firstly, on the one hand there appears to be wide scale central government commitment to private sector and public/private collaborations for expanding plantation forestry in Uganda. Yet at the same time, there was also some strong opposition and critique, including amongst non-government organizations, local government representatives and some community members. Some local leaders also presented caveats upon which their support for privatizing Ugandan forestry is based. Secondly, there appeared to be a disjuncture between the motivations for public/private plantation forestry collaborations amongst some private sector and government actors – including a tension between plantation forestry for carbon offset – versus timber and cultivation of other forest resources for domestic use. It is not certain whether these multiple motivations will be compatible into the long-term. Finally, most local communities remain unaware of the ways in which plantation forestry is integrating local ecologies and social systems in the global carbon economy. Such circumstances leave local communities with little or no bargaining power with the diverse actors that comprise carbon markets, to ensure their interests and needs are met.

5.3. Livelihood consequences of carbon colonialism

It is necessary here to start by providing some historical context as background to the contemporary contestation related to access and use rights of local people in forest reserves in Bukaleba and Kachung, the sites Green Resources have obtained 50 year licenses. This will demonstrate the extent to which neoliberal enclosure of land for plantation forestry can be seen as a state enabled land grab, and will illuminate how the social gains made under Uganda's state-led development era are being eroded by the shift to market-led development. After presenting evidence documenting the exclusion of local people from lands they have historically relied upon – processes we describe as demonstrative of carbon colonialism - we will then examine some of the livelihood impacts of these new land and resource constraints.

We start here in the post-colonial period, given the significance of these policy changes in driving the contemporary neoliberal land grab. The early post colonial period set the stage for occupancy, use and access rights of public lands, conditions to which the neoliberal policy environment in recent decades appears to have trumped. To begin, a number of Acts (including the 1962 *Public Land Act* and the 1969 *Public Lands Act*) provided an enabling mechanism for local communities to occupy public land for agricultural (and other) purposes, and without prior consent from the government (Mugambe, 2007; Petracco and Pender, 2009). Additionally, during the Idi Amin regime (1971–1979) – and supported by the 1975 *Land Reform Decree* – farmers were encouraged to occupy public land, including forested land to improve household self sufficiency and reduce pressure for service provision upon the failing state. The Amin government (and later followed by Milton Obote during his second regime), also reportedly distributed portions of protected areas to communities (Okuku, 2006: 10–11; Turyahabwe and Banana, 2008). Central Forest Reserves (gazetted between the 1930s–1950s) were amongst those land holdings distributed by Amin, and Bukaleba was amongst those made available to local communities.

As evidence of this, in a number of villages at both Bukaleba and Kachung Central Forest Reserve's we met people who described a familial connection that dated back to the 1950s. Villagers discussed burial grounds and cultural sites (both of which are now recognized by Green Resources themselves, demonstrated in the installation of signs in late 2013 by the company to demarcate such sites in Mayuge district), as well as housing and trading centres, as evidence of their long-term connection to places now recognized as being within the company license area. Community members also described long standing access and use rights; including for animal grazing, fishing, as well as the collection of firewood, spear grass and medicinal herbs, as well as accessing watering holes, amongst other uses.

Yet the introduction of policies in the early 2000s (for example, the 2001 National Forestry Policy and the 2003 National Forestry and Tree Planting Act), represent a shift away from this early public access to public lands approach; articulating a commitment to the privatization of both forestry and public lands (Mugambe, 2007; Olanya, 2014). Amongst the details, these policies stipulate investors as able to acquire land within a forest reserve. The issuing of license agreements to Green Resources (and other private sector actors) provides a policy mandate to enclose public lands, thereby constraining (albeit with contested understandings) historically established access and user rights. It is these conditions that we

[2] There is also on-going tension related to the Government's repeated attempts to issue a license in the iconic Mabira Central Forest Reserve for sugar cane production (Nature Uganda, 2011).

describe as a state enabled land grab; whereby neoliberal policy tools have been garnered to extinguish prior user and access rights, as well as trumping customary connections to land.

In this context, local villagers are now frequently vilified as “illegal encroachers” and “trespassers” on license areas by both government and Green Resources staff. This is despite the Tree Planting Act (2003) which states members of communities in close proximity to licensed areas retain rights to enter forest reserves to access resources (including the collection of firewood, for example). Demonstrating this vilification of local residents, one representative from Green Resources explained “these villagers need to know the law” (Green Resources representative, 2013). This re-subjectification of local community members appears to be used, in turn, to legitimize the denial of rights of local community members and/or Green Resources' corporate responsibilities.

There are profound local level livelihood impacts on the basis of this state enabled private sector land acquisition. To begin, many community members with whom we spoke at both sites described the destruction of crops, housing and trading centres alongside the arrival of the company's plantation activities. This was described as being undertaken by a collection of state, police and private sector actors. Since the early days of eviction, many community members with whom we spoke also described on-going ways in which the company – and often aided by police and government officers – constrained access to, and use of, landscapes in and around the plantation areas. Some villagers described being constrained from harvesting their own crops that grew within the license areas, including those that were mature; instead they watched them chemically poisoned or ploughed into the ground by staff employed by the company. We also heard frequent stories of animals that strayed into the plantation area being confiscated, with expensive payments required to collect them. Some local villagers had also been arrested for “trespass” onto the plantation, with penalties that included both cash fines and jail sentences.

While the company itself explained they employed security patrol officers to manage encroachment activities, they also at times deferred to police, with one company staffer explaining: “Anybody that commits an offence that we think is significant, the best you can do is to call in the arresting authority. We don't carry out any police work ourselves” (Green Resources representative, 2013).

Some of the villagers we spoke with also described a time when they had some access to the company licensed area to intercrop food amongst the plantation – a mixed species production system referred to locally as the *taunga* system. Many described these as times when they had harmonious relations with the company. Yet they lamented that relations between themselves and the company had soured as the company increasingly excluded communities from the plantation, imposing heavy fines upon those who breached the boundary line.

Some villagers at Bukaleba also described the destruction of burial sites to make way for the forestry plantation. Additionally, and as a consequence of relocation alongside the arrival of Green Resources, some community members described now residing a long distance from sites of cultural significance, including burial grounds and the sacred ‘Walumbe Tree’; a site of importance to bestow blessings. Some people lamented they had “taken some time” since visiting the Walumbe Tree, and given distance and travel costs, were unsure when they would next be able to return to this site to maintain their cultural practices.

Those living in villages inside the area licensed to Green Resources also faced particular challenges. Some villagers described themselves as having non-citizen status, with one person we spoke despairing – “it is like I am a Kenyan in Uganda” (resident, Bukaleba village, 2012). Due to their location in this liminal space – on land that was neither clearly the responsibility of public or private interests – these villagers were often overlooked by both the company and government in terms of the delivery of vital services, such as health and educational service provision.

Both the earlier evictions and on-going activities to constrain local people's access to the plantations signify Green Resources' attempts to empty the forestry plantation of both humans and human activities (including crop cultivation, grazing, bee keeping, collection of firewood, cultural practices etc.) that may be incompatible with the companies' commercial enterprises. For example, a Green Resources employee described the collection of firewood by local villagers as reducing the fuel available for combustion at their charcoal plant, meanwhile grazing livestock was perceived as likely to damage trees, thereby reducing the availability of timber and/or the capacity for carbon storage. This employee described human activities as a primary contributor to “carbon leakage” from their plantations (Green Resources representative, 2013). In this context, the enclosure of plantation areas was widely seen by company staff as paramount in constraining and/or excluding humans and their activities. In addition to justifying the enclosure of the forestry plantation on the basis of maximizing profits for the company through carbon trading, a Green Resources staffer also rationalized it on the basis of the company's corporate responsibility to maintain central forest reserves as conservation areas (Green Resources representative, 2013).

6. Discussion

Our findings demonstrate the extent to which national level policy changes in the post colonial period have provided an enabling environment for private sector actors to gain access to public lands for green and/or bio-economic forms of development. In Uganda, the neoliberal policy context, and backed by a strong mandate from President Museveni, has been a key enabler for private international investment. These results point to the engagement of state actors (including the National Forestry Authority and National Environmental Management Authority) in enabling the privatization of land and natural resources. While this might be seen as the devolution of state responsibility for activities on public lands, or what Sassen has referred to as the disassembling of national territories, we argue on the basis of our findings that rather than simply devolving responsibility, this policy and discursive turn is demonstrative of a collusion of public and private interests to privatize Ugandan forestry.

This partnership is demonstrated, firstly, via the Central Government harnessing its regulatory capacities to make land available for private investors. This has included the re-designation of central forest reserves as degraded so as to enable licenses to be issued to international investors. The outcome of this has re-defined local citizens as “illegal tresspassers” and “encroachers” on license land, to which the response has often involved a collusion of public and private interests to “manage” such encroachment (including fines, arrests and jail sentences).

Green Resources (and other plantation operators) have also been able to enter Uganda backed by a Central Government discourse that articulates the financialization of nature as a key strategy for addressing national challenges related to reafforestation, as well as providing Uganda with an opportunity to participate in international carbon markets.

Yet despite the hopes pinned to privatizing forestry plantations, our case study of Green Resources' plantation forestry activities demonstrates this appear to fall short in terms of addressing deforestation in Uganda. More specifically, most forest clearing occurs on private land (70%) and this rate of clearance does not appear to be slowing. The push for plantation forestry in so-called 'degraded' central forest reserves rather seems to be oriented towards carbon trading and the sale of plantation forestry resources; the outcome of which enables a new form of capital accumulation and enclosure (see also Corson et al., 2013) with benefits that flow to private investors, in this case Green Resources. Such outcomes do not appear to be addressing Uganda's acute forest clearing crisis. Rather, the primary beneficiaries of this arrangement, and following findings by Wiegratz (2010), appear to be foreign investors. It is also likely domestic power elites are benefitting from private forestry plantations, including company staff, as well as local elites with 'special' access rights to graze animals and grow food crops within the license areas.

Alongside the state opening up opportunities for international green investment through the neoliberal policy regime, Green Resources have responded by taking what we describe as a heavy handed approach in ensuring the terms and conditions of their license agreements. Indeed, the arrival of Green Resources is associated with brutal and sometimes violent evictions, often undertaken by company staff, or the state or national police. As a result of these new forms of constraint upon resource and land access, our results demonstrate the acute challenges local people face related to ensuring food security, as well as maintaining connections to sites of cultural significance. Despite Green Resources' claims related to corporate social responsibility, the lived realities of affected local people demonstrate these corporate aspirations fall well short of local needs. As such, our findings add to the growing body of literature that points to the adverse livelihood impacts of the financialization of nature. We argue these outcomes represent a neoliberal (state enabled) land grab, with outcomes that amount to carbon colonialism.

7. Conclusions

The findings presented in this paper point to the disconnection between private sector actor participation in carbon markets, and the lived realities of peasant farmers in the south, the latter of which it appears are expected to carry the burden of landscape enclosure for ecosystem services markets, including carbon sequestration. Whether it may be possible to harness public/private initiatives to achieve positive environmental change is yet to be seen, but on the basis of our case study, plantation forestry and carbon markets fall well short in this regard. This points to the urgent need for greater state intervention and support for environmental restoration projects, as well as protection of public lands. Our case study of Green Resources demonstrates that profits accumulate offshore, thereby distant from the site of carbon's production value, while affected peasant farmers have little idea of the market economy they are immersed within (either as small-time winners as labourers on the forest plantation, or losers having lost their land). This accumulation, we argue, is made possible by the fetishing of carbon; characterized by the disconnection of northern-based carbon credit consumers from the adverse local livelihood impacts for those living in, and adjacent to, forestry plantations.

Given Green Resources scale of operations, representing the largest plantation forestry operator on the African continent and with activities in four African nations, our findings are significant. The new forms of carbon colonialism being driven by displacement and constrained resource access can be expected to be occurring elsewhere, both under the mandate of licenses issued to this company, and other plantation forestry operators. Rather than fetishing carbon, and the adverse livelihood impacts on which Green Resources' participation in carbon markets relies, there is a vital role for research, advocacy and regulations to demystify and make visible the socio-economic and ecological contexts in which carbon is produced, traded and consumed. It is to this end our research seeks to contribute. On the basis of making such impacts visible, we conclude the market driven carbon fetish simply doesn't add up, providing the on-going impetus to think more broadly about solutions to the climate crisis.

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