Beyond the REDD+ neoliberal environmentality and its discontents in Southern Tanzania

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Abstract

This paper utilizes a Foucauldian approach to shed light on the claim that power relations are complex and dynamic, underlying neoliberal conservation mechanisms. Despite the ascendance of the Foucauldian governmentality lens to deconstruct neoliberal conservation, few context-specific studies analysing its multiple operations and contradictions with local realities are available. To fill this gap, this article advances a multiple-governmentality approach to REDD+ in Lindi, Tanzania, that allows for grappling with the social life of neoliberal conservation. It illustrates existing governing practices and techniques – including fences and fines, community self-management mechanisms, land use management plans, bylaws, monetary incentives, and social infrastructure – that have far-reaching and contradictory social consequences for forest-dependent communities in southern Tanzania. This article concludes by highlighting the significance of progressive, liberating-political framing to confront the exclusions and injustices inherent in current neoliberal conservation models.

Keywords: neoliberal environmentality, self-enterprising, power, REDD+

Resume

Cet article utilise l'approche foucaldienne pour mettre en lumière l'affirmation selon laquelle les relations de pouvoir sont complexes et dynamiques, sous-tendant les mécanismes de conservation néolibéraux. Malgré la montée en puissance du prisme de la gouvernementalité foucaldienne pour déconstruire la conservation néolibérale, peu d'études spécifiques au contexte sont disponibles pour analyser ses multiples opérations et ses contradictions avec les réalités locales. L'article propose une approche de gouvernementalités multiples à la REDD+ à Lindi, en Tanzanie, qui permet de s'attaquer à la vie sociale de la conservation néolibérale. Il illustre les pratiques et techniques de gouvernance existantes – notamment les clôtures et les amendes, les mécanismes d'autogestion communautaire, les plans de gestion de l'utilisation des terres, les règlements, les incitations monétaires et les infrastructures sociales – qui ont des conséquences sociales considérables et contradictoires pour les communautés dépendantes de la forêt dans le sud de la Tanzanie. L'article conclut en soulignant l'importance du cadre politique libérateur progressiste pour faire face aux exclusions et aux injustices qui continuent de façonner les modèles de conservation néolibéraux.

Mots-clés: environnementalité néolibérale, auto-entreprenariat, pouvoir, REDD+

Resumen

Este artículo emplea el enfoque foucaultiano para arrojar luz sobre la afirmación de que las relaciones de poder son complejas y dinámicas, subyacentes a los mecanismos de conservación neoliberales. A pesar del ascenso de la lente foucaultiana de la gubernamentalidad para deconstruir la conservación neoliberal, se dispone de pocos estudios específicos de contexto que analicen sus múltiples operaciones y contradicciones con las realidades locales. Para llenar el vacío, el artículo propone un enfoque de múltiples gubernamentalidades para REDD+ en Lindi, Tanzania, que permite lidiar con la vida social de la conservación neoliberal. Ilustra las prácticas y técnicas de gobierno existentes (incluidas cercas y multas, mecanismos de autogestión comunitaria, planes de gestión del uso de la tierra, estatutos, incentivos

monetarios e infraestructura social) que tienen consecuencias sociales contradictorias y de gran alcance para las comunidades dependientes de los bosques en el sur de Tanzania. El artículo concluye destacando la importancia del marco político liberador progresista para enfrentar las exclusiones e injusticias que continúan dando forma a los modelos de conservación neoliberales.

Palabras clave: ambientalidad neoliberal, autoemprendimiento, poder, REDD+

1. Introduction

The role of the Reduced Emission from Deforestation and Degradation (REDD+) program as a market-oriented scheme for conserving forest carbon has attracted substantial attention from political ecologists. Scholars have examined how neoliberal rationality and material practices play out across various levels (Asiyanbi, Ogar, & Akintoye, 2019; Astuti & McGregor, 2015, 2017), and debates center around the view that neoliberal rationality and technologies dominate the governance of human-forest interactions. In carbon forestry, this means remaking relations and subjectivities according to the idea of the "self as an enterprise" (McNay, 2009: 56). This approach works partly by diffusing ethical conservation norms and creating community self-responsibility mechanisms focused on forest conservation, and improving people's well-being (cf. McKee, 2009). REDD+ embraces a quasi-fortress practice of enclosure – a form of top-down control, quasi-legal dictates, and indigenous knowledge claims – to enclose forests and shape resource relations in pursuit of market-enabling carbon sequestration goals (Asiyanbi *et al.*, 2019; Collins, 2019).

Neoliberal environmental governance holds that forest carbon should be assigned an exchange value as a means for sustainable conservation (Fletcher *et al.*, 2016). A key expression of this governance approach is the decentralization of power, or what Foucauldian scholarship sees as the dispersal of power by governing at a distance through calculated mechanisms, techniques, and tools (Astuti & McGregor, 2017, 2018; Fletcher *et al.,* 2016). This emphasis on decentralization continues to animate community conservation efforts (Agrawal, 2005). Recently, the explicit elaboration of communities' encounters with neoliberal environmentality in REDD+ has been described by Asiyanbi and colleagues (2019: 128) as "community's technology of the self", which is partly evident in the ways in which neoliberal conservation mechanisms make communities responsible (McGregor *et al.*, 2019). Technologies of the self are actions of subjectivation, specifically, the conduct of subjects on the self and others (Asiyanbi 2019: 130). In Tanzania, proponents of REDD+ combined participatory forest management and neoliberal rationalities in their discourse and material practices by modelling what they called "community carbon enterprises (CCE)" to reproduce a self-management community responsible for neoliberal conservation.

There is a growing body of literature on the institutional and policy framing of REDD+, including its manifestation, contradictions, and contestations among forest-dependent communities (Lund *et al.*, 2017; Scheba, 2018; Svarstad & Benjaminsen, 2017). However, there are relatively few empirical studies on how carbon forestry's 'discursive field and material practices' (Bryant, 1998) shape local communities and their multiple environmentalities (Asiyanbi *et al.*, 2019; Collins, 2019). It is important to explore the extent to which environmentalities tend to shape and be shaped by subjects who also have the power to move them in different directions than those envisioned by experts. Major theoretical and empirical works in political ecology have focused on two other theories of power, namely, those informed by actor-oriented and neo-Marxist perspectives (Svarstad & Benjaminsen, 2017). Foucauldian power theories have added insights into understanding how the exercise of power takes shape from above and below, but few context-specific case studies from that perspective have explored how REDD+ works on the ground. Additionally, existing studies have focused mostly on the inception phase of REDD+ processes, with a common focus on the national scale (Andrew *et al.*, 2015; Boer, 2017).

More scholarly works are required to understand the existing hegemonic natural resource conservation discourses and practices and to unveil contradictions and associated social ramifications. This article offers a context-specific case study of market-based mechanisms to identify intricacies within the conceptual framework of environmentality, particularly focusing on how neoliberal conservation is represented and practiced, and its underlying socio-ecological implications in Tanzania and other regions of the global South.

The implementation of REDD+ in southern Tanzania is an interesting case for exploring how protecting more than half of the land (for example in this study, 64.4% for Village 2 and 57.8% for Village 1) as Village Land Forest Reserves had far-reaching adverse outcomes. By pushing people to the margin of the existing landscape they were denied sustainable livelihoods.

From 2009 to 2014, Tanzania adopted the REDD+ program to control deforestation and forest degradation in forest-dependent communities (Scheba & Rakotonarivo, 2016; TFCG, 2009). It was thought that REDD+ would resolve the problem of previous participatory forest management (PFM), especially in the area of sustainable forest governance and the need to improve community livelihoods. Failures of PFM were used as a discursive means to legitimize REDD+, in the form of market-oriented incentive schemes (Lund *et al*., 2017: 5). The intention of the project was "to demonstrate at the local, national and international level, a pro-poor approach to reducing deforestation and forest degradation by generating equitable financial incentives from carbon finance sources for communities that are sustainably managing or conserving Tanzania forests at the community level" (TFCG, 2009).

Building on diverse political ecology scholarship, the recognition of power dynamics through an environmentality lens has been used in analysis of REDD+ (Collins, 2019; Fletcher, 2017). This article grapples with the practices of making REDD+ governable, by focusing on the broader question of how experts' thoughts and assembled forest-dependent actors' subjectivities instilled environmental value. Similar efforts to provide empirical support for REDD+ environmentalities have been made in Nigeria, Guyana, and Suriname (Asiyanbi *et al*., 2019; Collins, 2019). Engaging with forest-dependent groups, recognising multiple subjectivities and possibilities for resistance is a significant step toward in comprehending community practices of emancipatory environmental governance, or what Fletcher calls the reinvention of socialist environmentalities (Fletcher, 2017).

Section (2) presents a conceptualization of Foucauldian political ecologies drawing on ontological and analytical insights, including practices of producing self-enterprising subjectivities. This is followed by a description of methodological problems. Sections 3 to 5 provide details on the REDD+ project in Lindi, and demonstrates the underlying neoliberal rationality and practices embedded in REDD+. I identify various mechanisms shaping environmentality subjectivity, including its constituting power relations, and reveal the dominant discourses and tactical manipulations shaping REDD+ practices, as well as the challenges faced by forest-dependent communities. Section 6 presents conclusions.

2. Conceptualizing Foucauldian environmentalities

Political ecology approaches to power have engaged with Foucault's concept of governmentality, which is either used as a stand-alone power theory or combined with actor-oriented and neo-Marxist perspectives, as Svarstad and colleagues convincingly argue (2018). The framework examines the move from seeing power as repressive, towards a productive understanding of power as something through which governmental interventions are "…the assemblage formed by the institutions, procedures, analyses and reflections, the calculations and tactics that allow the exercise of … power" (Foucault, 1991: 102). The call for theoretical and empirical elaboration of politics in of the art of governing in the environmental domain has received renewed analytical interest (Lemke, 2001; Rutherford, 2007). Fletcher (2010: 171) proposed that Foucault's idea of "governmentality" helps us to understand market-based conservation as a form of neoliberal environmentality that operates along "several other discrete environmentalities embodied in competing approaches to conservation policy." Despite the growing tendency to draw from Foucault's later work on governmentality to understand "multiple environmentalities" (Fletcher, 2010), relatively little attention has been given to the theoretical and empirical implications of the lived experiences of local communities that encounter multiple governmentalities.

Neoliberal environmentality constitutes other multitudes of environmentalities, and the concept shows how external incentives influence self-interested actors who are expected to be rational and embrace these inducements to shape their behaviors (Agrawal, 2005). This is what Foucault (2008: 260) observes to be an environmental type of intervention rather than an internal subjugation of individuals' disciplinary governmentality. Specifically, in REDD+, there are multifaceted interventions involving monetary

incentives, the spirit of entrepreneurship, welfare projects, and environmental education, among other features (Benjaminsen & Kaarhus, 2018; Boer, 2017). A neoliberal approach of this kind promotes a particular mode of environmental citizenship or a green mentality, with an emphasis on conserving specific aspects of biodiversity at the expense of marginal human communities (Mukono & Sambaiga, 2021; Vedeld *et al.*, 2016). In this article, I argue that in selected cases of REDD+ in southern Tanzania, different dimensions of environmentality – ranging from neoliberal, disciplinary, and welfare environmentality – are inherently interrelated or executed in combination.

Neoliberal environmentalities operate through what Boer (2017) refers to as 'welfare environmentality.' This involves forms of power based on rationalities and practices that are exercised over people's external environment, insofar as they are thought of as living beings whose wellbeing needs to be improved (Boer, 2017; Fletcher, 2010; Rutherford, 2007). These are "external regulation technologies" that, in Indonesia, for instance, provide specific rights to employment, health, and education. In exchange, the state expected that by securing livelihoods, forest-dependent communities will adopt roles as custodians of the environment (Boer, 2017: 796). Boer's study demonstrated that welfare environmentality and neoliberal governmental technologies are constructed through a combination of economic and noneconomic incentive schemes that redistribute social risks by creating socioeconomic conditions to which actors are subjected and to which they have to respond. This type of analysis, however, overlooks important dimensions of coexistence, and the contradictory nature of context-specific framing, including practices of multiple environmentalities (Collins, 2019). In contrast, I argue that power is seldom a fixed and closed regime of practices but rather a very complex, endless, and open strategic game. Explicitly, there are continuous struggles to reinvent and combine different strategies in guiding actors to specific environmental ends (Li, 2014), while those recipient actors reclaim recognition.

Neoliberal environmentality operates as a complex mundane practice that depends more on the combination of sovereign, disciplinary, and welfare forms of environmentalities that are constantly unfolding, with a wide range of consequences. These also need to be documented. The execution of REDD+ is not only enforced via sovereign and disciplinary power over actors, but also through experimentation with welfare-related environmental options for sustaining citizens' health and livelihoods, but these are enacted to gain legitimacy from communities. Interventions to reduce death and morbidity and increase birth and literacy rates, or entrepreneurial skill enhancement, have been embraced in the course of making REDD+ subjects in rural southern Tanzania (MJUMITA; Doggart, 2014; Namilembe *et al.*, 2010; Scheba & Rakotonarivo, 2016). Based on these empirical findings I show how forest-dependent actors are being instilled with a mentality to self-regulate themselves within the dominant framework of the commercialization of their socioecological domains. There is a formatting of their mentalities, values, and beliefs for self-responsibilization (Astuti & McGregor, 2017; Rutherford, 2007). This Foucauldian poststructural political ecology framework is useful for showing aspects of epistemic persuasion, manipulation, new entrepreneurial habits, and the overall molding of actors who depend directly on the forest. These practices that seek to make REDD+ work for communities and forest conservation constitute the praxis of remaking complex interactions between local communities and their socioecological landscapes.

3. Methods and study area

This work builds on an exploration of a specific case of the implementation of a REDD+ project from 2010 to 2014, that was anticipated to continue until 2042 after the first phase of piloting. However it failed to sell carbon credits. The Lindi district is surrounded by the Eastern Arc and coastal forests in which the World Wildlife Fund (WWF), Mpingo Conservation and Development Initiative (MJUMITA) and the Tanzania Forest Conservation Group (TFCG) operate (Lund *et al.*, 2017). The project covered 10 villages that received trial payment schemes and other associated mechanisms, such as infrastructure projects, conservation agriculture, and beekeeping. The project was experimental because of the incentive schemes used, and it was the only one in Tanzania to verify its annual reduced emissions via the Voluntary Carbon Standard (VCS) and Climate, Community and Biodiversity Alliance (CCBA) standards. It then failed in the market, despite having the aim to formalize forests as 'village forest reserves' for sequestering carbon for the sake of harnessing carbon credits. TFCG/MJUMITA verified its reduced annual emissions between April 21, 2012,

and May 31, 2013, under SCS Global Services (MJUMITA, 2014; see also Lund *et al*., 2017: 7). By 2012-2013, 39,896 tonnes of carbon dioxide equivalent ($tCO_{2e}s$) were detected per annum. The Norwegian government-funded project implemented by the TFCG and MJUMITA projects adopted diverse neoliberal rationalities and mechanisms, and exemplifies the expert practices of instituting 'community carbon enterprises' in two of the selected communities in Lindi. The underlying rationale was to produce both theoretical and technical models for REDD+ subject-making through a community-based approach.

The fieldwork for this article was conducted in 2017 and dissemination visits were made in 2019. I employed in-depth interviews and focus group discussions (FGDs) with community members, including members of different REDD+ committees found in the communities. In particular, I organized twelve FGDs, identified four key informants and conducted interviews with village leaders and village government officials, five FGDs with village natural resource committees, conservation agriculture groups, REDD+ payment distribution committees, village land use planning committees, charcoal producers and timber makers. In addition, I held two small group interviews with district officials plus thirty-two in-depth interviews with community members. The researchers conducted FGDs with the REDD+ payment committee, village natural resource committee, conservation agriculture group and land use committee, which included men and women. This research gathered data from the district REDD+ coordinator and village administration on several activities implemented by projects, on land use, and local livelihoods. The REDD+ implementation data were compiled from the TFCG archive.

Furthermore, I analysed archives on the National REDD+ strategy and action plan, project reports (baseline, implementation, and evaluation reports), briefs, land use management plans, standard guidelines, and bylaws established between 2009 and 2014. So the article combines existing scholarship, archived texts and communities' lived experiences to understand multiple relations in neoliberal conservation. The two villages where fieldwork was conducted are anonymized as Village 1 and Village 2 for ethical reasons, as this study gathered sensitive data that have been published elsewhere. Additionally, I studied and analysed the REDD+ research and implementation reports produced in the past five years (2009-2015).

Background to the REDD+ project in Lindi

The rural population of the region mainly depend on small-scale shifting agriculture practiced in forests. Forests provide access to firewood, construction materials, hunting, and food sources such as fruits and vegetables. Some use forests for small-scale timber harvesting, firewood for brick manufacturing for local construction, commercial fuelwood extraction, medicinal products and charcoal production (MJUMITA; Doggart, 2014). I purposely selected Village 1 because it represented the best-case scenario of using market incentives to address problems resulting from shifting cultivation. The project assigned 1,886 hectares or 57.8 percent of the village's forest to the Village 1 carbon project, which had four subvillages. Village 2 is composed of three subvillages and was an interesting case because it was the one with the largest share of forest (2,843 ha, i.e., 64.4%) among the ten villages that entered the REDD+ program to receive monetary incentives.

Unlike other villages with a history of participatory approaches in forestry conservation, no such relationships had been developed in Village 1 or 2 before the implementation of REDD+. Both villages were established during the *ujamaa* villagization process that took place in Tanzania's socialist years in the early 1970s, and people were resettled from different dispersed forested areas.[2] Village 1 is bordered by the Chitoa and Makangara Forest Reserves under the jurisdiction of the district forest office, which provides permits for forest products. The largest parts of forested land were used as common pool resources for various livelihood activities.

From the 11th century AD, the whole of southern Tanzania, including Lindi, had trade contacts with foreign traders from India, the Middle East, and other parts of Africa. Lindi is a multiethnic region that includes the Wamwera, Wamakonde, Wangido, and Wamaatumbi people, with some Asian and Arab peoples. According to the NBS (2013), Lindi covers approximately 67,000 ha of land and has 864,652

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[2] Interview. Elder community leader, Village 1.

people, with a low population density of 13 persons per square km. Lindi region is one of the most forested regions in Tanzania, with tree cover of 57%. The land was, for the most part, customarily owned as open access forest, 12 percent of which were governed as village forest reserves.

The Lindi region was subjected to colonial forestry models since German colonial rule, when the first management site was established: the Rufiji Delta (1891-1919). Under subsequent British rule, the Forest Ordinance dated to 1921, and banned all forest-related livelihood activities among native peoples. There were no significant changes after Tanganyika gained her independence in 1961, which was followed by the establishment of *ujamaa* villages. Since then, Lindi has experienced massive deprivation and poverty, and the district is one of the poorest councils in Tanzania, with low incomes, poor infrastructure, and chronic food insecurities despite an abundance of land. Because most of the land is forested, the majority of people depend on subsistence farming, mostly through shifting agriculture. This is observed in the study villages, in which 88 percent and 65 percent of their lands were subjected to village reserves for REDD+ projects (Mukono & Sambaiga, 2021).

The 1998 National Forest Policy (URT, 1998) and 2002 Forest Act were foundations for the establishment of community-based forest management (CBFM) and joint forest management (JFM). The latter identifies villagers as owners and managers of Village Land Forest Reserve. In Lindi, like any other forest-dependent community in Tanzania, forests are identified as common pool resources. One REDD project was implemented in Lindi District, approximately 30 kilometers inland from the Indian Ocean in southeastern Tanzania.

Within this socioeconomic context and institutional framework, REDD+ and PFM were integrated in ten selected communities in Lindi (Lindi and MJUMITA, 2014). Two villages later refused to participate in conserving forests and improving people's welfare. Three related outcomes were expected to be accomplished by the project. First, in terms of climate, it sought to reduce the emissions of greenhouse gases from unplanned deforestation, enhancing carbon stocks. Second, to enhance the community, the project aimed to maintain forest ecosystem services, generate individual cash income from REDD+, improve agriculture, and improve the quality and availability of public services and infrastructure. Third, the project had biodiversity improvement goals, including conserving threatened and endemic species and an extensive area of the East African Coastal Forest (MJUMITA; Doggart, 2014: 2).

4. REDD+ for communities and forest conservation

The specific case studies presented here illustrate how the art of governance was exercised through a social milieu constituted by connected institutions, discursive practices and rationalities, strategies, and material activities during the design and implementation of the project. These heterogeneous processes of performing REDD+ constituted a complex and contradictory art of governing that continues to be constructed, disseminated, and reconstructed ten years the project ended. Key findings from the two case studies are detailed and discussed in subsequent subsections.

REDD+ and the art of governing through TFCG and MJUMITA

In 2009, the Tanzania Forest Conservation Group (TFCG) and *Mtandao wa Usimamizi wa Misitu Tanzania (MJUMITA),* a nongovernmental organization with a long history in forest conservation, joined the state of Tanzania and international consultants to pilot REDD+. Other participating actors were higher learning institutions, including the University of Dar es Salaam and Sokoine University of Agriculture (SUA), which included selected community members. These actors were engaged in studies, meetings, and workshops to create an environment conducive to REDD+ implementation. Undoubtedly, there were high ambitions and expectations for change (Fletcher *et al*., 2016; Lund *et al.*, 2017). It was a project that produced different institutional frameworks and mechanisms for thinking/visioning and practicing REDD+ in local communities based on the previously designed National Strategy and Plan produced by the National REDD Task Force (VPO, 2013a) and implemented at the national scale (VPO, 2013b).

Despite being heavily branded and marketed as the best model for community carbon enterprises, it has subsequently been added to the list of failed interventions based on the PFM model (Lund *et al*., 2017).

The evidence for this is that the verified carbon tonnage has never been sold and that the Norwegian government withdrew in 2014. One of the project officials said that "We put in many efforts, but we have failed to secure a market for the verified carbon."[3] There are increasing criticisms of REDD+ in Tanzania and other states about the numerous manipulative tendencies surrounding its discourses, and about how reality on the ground contradicts the claims of project funders and managers (Asiyanbi *et al.*, 2019; Benjaminsen & Kaarhus, 2018; Scheba & Rakotonarivo, 2016; Svarstad & Benjaminsen, 2017).

Reconstruction of environmental narratives to fit the global market for carbon credits

Studies in Indonesia have shown that REDD+ conservation schemes constitute the construction of new knowledge, politics, and subjectivities (Astuti & McGregor 2015; McGregor *et al.* 2015). This section focuses on project proponents' thinking and construction of community carbon enterprises as neoliberal conservation rationalities in Lindi. The findings revealed that the marketing and standardization of concepts were central to guiding experts' representations of reproduced knowledge. Studies conducted, for instance, by Campese and Kibuga and colleagues in 2011 on behalf of TFCG/MJUMITA, drew on environmental economics to guide the formulation of Community Carbon Enterprises (CCEs). The REDD+ social and environmental safeguards – including CCBA standards – promoted the adoption of neoliberal environmentalities to make the program calculable and governable at the local level to gain international recognition. Several reports were published by hired project experts who coproduced environmental knowledge based on neoliberal logic: TFCG (2009) on making REDD work for people and forest conservation; Forrester-Kibuga and Samwel (2010) on drivers of deforestation and stakeholders in Lindi; TFGC (2011) on creating a training manual on participatory forest management and REDD+; TFCG (2011) on improving agricultural practices; on the integration of principles of FPIC; and Luwuge and colleagues (2011) on guidelines of REDD+ implementation at the local level, among others.

These reports used neoliberal framing and a carbon commodification narrative to legitimize knowledge claims. For instance, Kibuga and colleagues (2011: 2) reported:

> The enterprise will aggregate voluntary emission reductions from its members and market them according to internationally recognized standards. A proportion of project funds and market revenue will be channeled directly to the communities on a result-based basis, thereby maximizing incentives to maintain forest cover and reduce deforestation.

The study revealed that REDD+ practices in Lindi use a programmatic policy intervention model that portrays practices of economic growth through what was termed "economic logic and market branding" (TFCG, 2009). Notably, a project policy brief with the subheading "Giving poor people money helps to make them rich" envisages the removal of barriers to entrepreneurship and states that "poor households often cannot afford to risk their labor on activities that do not result in immediate income. Individual payments would … enable people to purchase supplies and equipment required for new livelihoods...."[4] Produced land-use management plans indicate the need for all forest-dependent actors to achieve an income level sufficient to compensate for their reliance on forest resources. For instance, experts demonstrate that the adoption of land-use plans would facilitate access to formally owned land to be used as "collateral."

Findings from the ground indicate that program goals such as beekeeping, village community banks (VICOBA) and improved agriculture were not realized. This was confirmed by a village government official, who said, "These activities did not materialize since there were no efforts made to make them sustainable." Based on interviews from both villages 1 and 2, alternative livelihood activities introduced by the project were not socially or economically viable. For instance, during discussions on VICOBA, the following remark was expressed: "The practices of VICOBA that are based on weekly revolving funds are hard to achieve

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[3] Interview-Project officials, 2017.

[4] TFCG REDD+ Project policy brief: Why individual payments are the best option for REDD.

because people have no additional income to contribute; it remained on paper."[5] Additionally, people were dissatisfied with conservation agriculture, and one of the members of the conservation group said "people did not practice conservation agriculture [*Kilimo hifadhi*] because its process seemed to be time-consuming, as one expected to start preparing the farm in September and to wait to plant maize until January the next year."[6]

This finding concurs with the emerging political ecology literature on notable problematisation and visualization of 'economies of expectation' (Asiyanbi *et al*., 2017), or what Lund and colleagues (2017) noted as the continuity of "conservation fads [that] appear in REDD+ practices." Contrary to the rhetoric of experts, it is evident that much of the financial and human resources provided by the Norwegian Government's Ministry of Foreign Affairs – US$ 5.9 million – were spent on technical and administrative capacities (Lund *et al*., 2017). Despite obtaining certification from the Verified Carbon Standards (VCS) and Climate, Community, and Biodiversity Standards (CCBS) audited by SCS Global Services, no carbon credit was sold (MJUMITA; Doggart, 2014).

5. Assembling carbon self-enterprise interventions

This section discusses the strenuous efforts that were used to reorganize diverse dimensions of REDD+, form links between them, and maintain links under conditions that enabled governance within the preferred version of neoliberal rationality. There were multiple interventions used by the project to assemble different activities, labour, and materials inherent in the construction of REDD+ subjects (Astuti & McGregor, 2015). My empirical cases explore several interchangeable mechanisms that adopt the neoliberal, sovereignty-disciplinary-government triad of power observed in the implementation of REDD+.

Utilizing technologies for participation, instruction, and marketing

To produce a sense of hope and desire for a better life for community members, persuasion and enticement techniques were employed in the making of REDD+ subjects in Lindi. At village meetings and REDD+ committee member training sessions (what Scott [1998: 237] called "ratifying public bodies"), project managers used cinema, workshop training, and drama to promote values, including norms for forest conservation. These events were well captured by the following words by a participant:

> REDD+ were clever [*wajanja*] for attracting our attention; in the meetings, they used drama, music, and gifts to answer quizzes and cinema related to carbon conservation issues. Using these techniques, it was easy to mobilize many people and pass on the information.[7]

Evidence of poor participation in village meetings is well documented in project reports. For instance, participation in meetings in Village 1 was only 108 people out of 4,470, which is only 2 percent of the entire village population. In Village 2, 113 out of 668 people participated in meetings—17 percent of the population (Namilembe *et al*., 2010). This suggests that without the use of theatre and arts, it would have been difficult to attract even those few who appeared in meetings. However, experts claim that the project was highly participatory in terms of FPIC practices but problematic in terms of the experience of community members, indicating that the program relied on manipulation.

Using cinema as the governmental technology in Lindi has been described as 'eco-panoptic videotapes and photographs' (cf. Luke, 1995) that prompt people to rethink their habit of destroying forests. This was contrary to the state goals and, in fact, disciplined people with coercive power. For example, one community member from Village 2 described his experience with cinema as follows: "Some of the displayed pictures that indicated human activities that affect the forest were very terrifying, which made people rethink their

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[5] FGD – Male and female community members, Village 1, 2017.

[6] FGD – Group members of conservation agriculture, Village 2, 2017.

[7] FGD # 2 – community members Village 2, 2017.

behaviours." These practices in communities were crucial for internalizing conservation social identities and the ethical norms that forest-dependent populations in Lindi were asked to follow to conserve the forest.

Such disciplinary mechanisms of subject-making were used in shaping actors' desires to be rich after selling carbon credits. Through cinema, experts convinced the community to be part of the carbon credit business. Informants from Villages 1 and 2 said that they were encouraged to be game changers in conservation while benefitting from it. However, the claim advanced here based on our empirical findings is that the practice of making environmentality is not monolithic but rather a multitude of environmentalities that are exercised in different forms of governmental technologies (Fletcher, 2017; Larner & Butler, 2005; Rutherford, 2007). The data show that mechanisms such as the use of training manuals as pedagogical tools, the provision of monetary incentives, and self-community monitoring in the form of village natural resources committees, cinema and performing arts were utilized by project as governing mechanisms for molding environmental subjectivities.

Utilizing monetary incentives and welfare technologies

The REDD+ project in Lindi implemented by TFCG and MJUMITA demonstrated the practicability of neoliberal environmentality by providing monetary incentives to people with the promise that conserving forests had both social and economic benefits. A female participant from Village 1 said, "The first installment of money provided to us created the sense that more benefits would be coming. We saw with our own eyes – construction of village offices, school latrines, and project offices for the first time in our community." Another respondent from Village 2 stated that "everyone was happy with the project and each of us received approximately US$15 (35,078 Tanzania shillings) as a carbon dividend [*gawio la hewa ukaa*]."[8] Promises of a better future made communities consent to enclose their land as a Village Land Forest Reserve in the hope that they would continue to benefit. Even the timeframe for project implementation indicated that it would continue until April 2042. In this way, the case study of REDD+ in these villages contributes to existing findings on the "economy of expectation" (Asiyanbi *et al*., 2019; Lund *et al*., 2017) since it shows the extent of the promises but the reality of failure of a project after only five years.

Our findings mirror other critical studies that have shown the use of specific incentives in REDD+ projects to shape forest conservation with the promise of a better life. Like other documented cases, such as that identified by Lund and colleagues (2017), the implementation of REDD+ in the two communities and generally in all other villages in Lindi district went beyond the pilot phase. Similarly, Asiyanbi and colleagues (2019: 133) observed the negative side of the dangers of promises given to communities in anticipation of financial gains. What remained intact in community members' memories were the abandoned project motorcycles, office furniture, documents, and unused buildings constructed by the project as their headquarters.

People were concerned that despite freely offering their land for the REDD+ project, promised benefits were only partially fulfilled. The experience of financial technologies used to make people optimistic has been demonstrated by Asiyanbi and colleagues (2019: 133) "to constitute an experience of the violence of power." The communities complained ten years ago that they had not received official communication from the project manager about the future. In confirming that, one respondent said, "They left everything in this project's office. You can see discarded motorcycles, furniture, and other documents. We have been left in orphanhood [*tumeachwa yatima*]." It was through these tactics of promising a better future and providing financial incentives that community leaders in Village 1 convinced other members to distribute all money in constructing social services with the hope and expectation that more dividends would be shared by the project after the selling of carbon credits.

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[8] Commonly held Swahili expression of carbon-based monetary incentives.

Similarly, Village 2 assigned a portion of the piloting money to the construction of health facilities, which were never finished. Community members were encouraged to form groups for VICOBA,[9] beekeeping, and conservation agriculture, none of which were successful. The idea was to institute self-policing community groups that could provide small loans. One participant in the conservation group had this to report: "The Extension officers [*maafisa ugani*] established demonstration farms [*shamba darasa*] and taught modern practice of farming. However, I noticed that it was difficult to implement as it required more time and money." However, findings from communities indicated that what was presented as successful by experts in their reports and in conversations with government officials and village leaders was otherwise. For instance, it was found in the late 2010s that none of the community members were still practising conservation agriculture or using sustainable stoves, which had been positively adopted in communities.

People's dissatisfaction is justified by the small amount of payment they received. For instance, in the first phase of the monetary payment, each adult member received Tsh. 39,000/= ~US$ 17.10, and the dependants received Tsh.20,000/= ~US$ 8.80. The remaining Tsh. A total of 2,973,560/~US$ 1,304.09 was invested in community development projects. The second phase payment of carbon incentives was even lower as each member received Tsh.1, 200/= ~US$ 0.53, and 5 percent was paid to the district, amounting to Tsh. 38,000/= ~ US$ 16.7, while a total of Tsh. 15,860/= ~US$ 6.95 went to office equipment.

Based on such distributions and untimely project closures, different contra-environmental subjectivities grew. Community members blamed their leaders for colluding with project personnel who had fallacious promises, while charcoal and timber makers suggested that people were suffering due to lack of tangible benefits. Participants informed me that most of the youths who were investing much of their time in sesame cultivation as their major socio-economic activity were caught in the middle of livelihood difficulties. Such difficulties emerged because the land was grabbed for REDD+ projects, and all cultivation activities were restricted. Unlike Boer (2017), who praises REDD+ as a form of welfare environmentality with positive contributions, our case study suggests that it was business as usual: financial resources were wasted on pilot programs without thoughtful or sustainable plans. Funds were spent on forest-dependent actors for the use of forest resources and the reordering of the spatial configuration of the existing landscape to institute conservation purposes that serve the interests of international actors and internal cohorts of professional experts, who benefitted at the expense of forest-dependent actors through enclosures.

Use of regulatory mechanisms in the making of governmental subjects

In the course of the implementation of REDD+ in Villages 1 and 2, there were notable exercises of sovereign power as a form of environmentality in which TFCG and MJUMITA, with aid from government district officials, formulated and enforced codified rules, including regulations. Land use management plans approved in 2011 were a case in point and they, among other things, contain bylaws with regulations for shaping people-forest interactions. 'Greenmentality' norms and sanctions were codified in the formulated forest management bylaws. The underlying essence of the rules and sanctions that guided the existed forestry laws was to collect actors' behaviors to alter their acts of forest resource use for conservation purposes. Discussion with members of the REDD+ Village Natural Resources Committee (RVNRC) indicated that "These bylaws [*Sheria ndogondogo*] were written by project managers and brought to the community assembly to be discussed. They provide strict regulations for accessing forests."[10]

During the kick-off of the project, participants were informed that the District Forest Officer (DFO) was given the coordination role for managing REDD+ in Lindi, contrary to their expectation to have autonomous management their own community project. This control by local government suggested the existence of sovereign power in playing its regulatory and organizing role in the artificial territorialization of the village landscape. The DFO reported that, among other activities, they had to ensure that all of the

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[9] These are Village savings and loan associations (VSLA), a type of self-organized savings groups largely championed by development agencies across Asia and Africa countries.

[10] FGD-Village Natural Resource Committee, Village, 2017.

designed REDD+ land management plans complied with government regulations. In some instances, he had to intervene in collaboration with village officials to discipline and punish those who were caught violating the established bylaws. During an interview in 2017, the District Forest Officer had this to say: "Our office was given a coordination role, staff from our office produced land-use plans, organized meetings, and guided surveying of village land." These identified assignments were not only to serve the interests of funders but also those of the state and had to align with existing rules, policies, and strategies formulated by the state.

Additionally, the establishment of key committees, especially the REDD+ Village Natural Resources Committee (RVNRC), which reports to village government-appointed officials (village executive officers), demonstrated sovereign power at work. The land-use plans and bylaws were scripted following the existing Local Government Act (1982), Forest Act (2002), and Forest Regulation (2004). Specifically, the charge of ~US$22.13 (50,000 Tanzanian shillings), both as fines and user fees, was designed to institute obedience, and the majority of poor people could not afford that large sum (Kinyope, 2011; Ruhoma, 2011).[11] During the fieldwork in 2017 I observed that a person who needed logging materials from a reserved carbon forest for personal needs, such as constructing a house or obraining timber for furniture, had to pay the designated fee of at least US$ 22.13 with a permit lasting for one month. This payment is still in place today, because of land use formalization that took place. The same amount of money was required from people caught illegally trespassing in the reserved forest doing any livelihood-related activities. The uniformity of bylaws was observed, and VEOs reported that bylaws had to follow the government structure to guide participatory forest management plans.

The project created fines and punishments designed as threat mechanisms to dissuade forest-dependent actors from using forest resources. For instance, several community members said that approximately US$ 22 was not easily affordable, and people feared being penalized. Others explained that people feared that failure to pay the fine would lead to incarceration.

Such punishments and disciplinary mechanisms were not easily accepted. In contrast, there was some resistance, including manipulating permits, moving restricted charcoal and tree products at night, and collaborating with leaders to serve their interests. During the field work visits in formal gathering [*vijiwe*] interviewee showed that there were dissatisfactions: "People were unhappy, and they were accessing forest resources in secret." Such sovereign environmentality has been at work in rural Lindi since then and currently has resulted in 'fortress conservation', as forests are a 'no man's land' for resource use. At the district level, these VLFRs are still currently closely monitored by the District Natural Resource Office under the close supervision of forestry officers.

Additionally, the study revealed that forest-dependent actors in rural Lindi were subjected to the disciplinary apparatus through user fees created to modify people's interactions with price tags. This approach was quite different from formal sovereign techniques but closely connected since it uses laws and land-use management plans to normalize forest-dependent actors' access as part of village income, while at the same time disciplining them from using common access. Specifically, land-use plans and bylaws formulated in 2011 identified a minimum amount for individuals to pay to obtain a permit for harvesting trees. These disciplinary techniques are increasingly becoming incorporated in the governance of natural resources for actors and communities, in general, to self-regulate towards ethical environmental sensibilities (Fletcher, 2010).

Enclosure and exclusion criteria for REDD+ subjects

Findings from the two communities revealed that practices of making REDD+ work for communities generate far-reaching consequences that are erased from discourses provided by its supporters (Benjaminsen and Kaarhus, 2018; Samndong, 2018). The evidence further indicates that the actual exercise of ordinary REDD+ practices can be socially disturbing, resulting in displacement, inequality, and spatial fragmentation of the community landscape. The data collected from Village 1 and Village 2 show that the utilization of

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[11] These are government approved village land uses plans.

welfare, disciplinary, and sovereign environmentalities through the spatial ordering of actors' bodies, subjectivities, and landscapes is distressing. Interviews with various community members revealed that rather than facilitating practices of an 'ethics of care' for people's livelihoods, it segmented them. This led to the total enclosure of forest resources, such as land for agricultural activities, charcoal, timber, and harvested tubers. Findings identified the emerging process of accumulation through green grabbing for carbon sequestration (Bluwstein *et al*., 2018; Chomba *et al*., 2017; Howson, 2018). One observation in 2017:

> The way it appeared was like I was selling our areas and I would not get them back [….] and people were restricted to reach in some areas, restricted from planting their crops [……] and in some places where people had established settlements they took those areas….forcing people. It was like torture, as people's land areas were changed into forest reserve areas.[12]

Similarly, Svarstad and Benjaminsen (2017) reveal how social marginalization and inequalities are produced through the aestheticization of REDD+. The findings from Lindi show that the specialization of community landscapes through land-use plans with a combination of environmental factors are not ideal for substituting prior livelihood activities in enclosed forests. This demonstrates the adverse effects of market-based instruments in accelerating differentiated social inequalities (Scheba, 2014). For instance, interviews conducted in the study area revealed that the enclosure of agricultural forests affected the amount of sesame cultivation by many unemployed youth who had started to venture into small commercial cultivation as their livelihood alternative. Sesame was identified as an emerging cash crop, and areas where it used to have the best yield were enclosed under the new REDD+ Village Land Forest Reserve. The village executive officer described this experience as follows in 2017: "The majority of our youths [*vijana wetu wengi*] have been denied access to cultivation opportunities in sesame, which used to be far better in areas that have been restricted. They just move around and have no immediate activity."[13]

Conflicts over the land, forest and monetary incentives

The implementation of REDD+ in rural Lindi indicates that lived experiences of the social consequences of environmentalities are visible in numerous ways. There were land-related conflicts among community members and between neighboring villages. Drawing on community views, members suggested that this was a result of a promised artificial rush for carbon money. The villages were willing to allow the project to use more areas to increase the probability of obtaining this money. In one of the interviews, a respondent said the project promised them that "The more forest you conserve, the larger the sum of monetary incentives you receive in return." Communities reported ongoing misunderstandings because the project changed the previous village boundaries put in place in the early 1970s. In both communities, leaders explained that since the redrawing of new boundaries to accommodate project requirements, some parts of other neighbouring village land were occupied by villages that were under the REDD+ project.

Community members further elucidated that they endlessly attempted to meet with members of villages they were in conflict with, but there were no positive signs of reaching agreements. Previously, members noted that they commonly had intravillage access to forest resources. Other villages outside the project were excluded from accessing it. This conflict occurred between Milola Magharibi and Village 2, in which people in Milola Magharibi were forcibly evicted from the area to pave the way for the REDD+ project. This resulted in reactionary movements and enmity, and people from Milola Magharibi reclaimed their land, which had been allocated for conservation by Village 2. Additionally, many social tensions within the villages arose to challenge the project. The interviews demonstrated the existing social tensions:

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[12] Interview-male # 11, Village 1, 2017.
[13] Interview-Village Executive Officer, Village 2, 2017.

> The village government decided to invest in the village public projects…Moreover, many people lost their faith in REDD+ [….]. In addition, citizens were hoping to obtain money. Later, they changed the decision and said money was enough. Many people were unhappy, and they agreed because it was the government's decision that endorsed it. For a normal person, it could be hard to resist.[14]

The implementation of REDD+ in rural Lindi sparked conflicts, with the substantial disruption of harmonious relations that existed before the segmentation of the community's landscape by the REDD+ project in 2010. Such cordial relations observed before project implementation existed because the largest part of the forestland was freely accessible. Conflict escalations, as expressed above, were a result of forced resettlement during the process of securing land for forest carbon. Similar conservation-related conflicts have been documented in the era of REDD+ and other neoliberal conservation practices (Sikor & Câm, 2016). Other conflicting issues emerged due to the actors' different interests. For instance, a perceived sense of betrayal was noticed in Kinyope, where villagers reacted politically to de-elect their former village leader in the 2015 general election, someone who had been a key figure in persuading actors to receive the project, hoping to obtain an improved 'welfare environment.'

In realizing the bare promises provided by REDD+ social rewards in 2014, a participant expressed that the local election of 2014 was used by people to present their anger through the ballot box. Again, with strict restrictions and close policing by the Village Natural Resources Committee in collaboration with village authorities, forest-dependent groups – such as those engaging in charcoal and timber production and those who are in the process of constructing new houses (Lund & Saito-Jensen, 2013) – were vehemently questioning the continuity of the forest resource user fee (US$21). However, they expected monetary incentives. These notable micro-conflicts and criticisms from forest-dependent actors regarding the politicization of forest conservation indicate flaws inherent in the reproduction of neoliberal environmentalities. Instead of inclusive forest management, the project generated intracommunity social factions, and those who closely depended on such forest resources were viewed as villains.

Ironically, the homogenization of monetary incentives was a flawed attempt to erase existing social differentiation and marginalization. For instance, in both communities, forest-dependent groups that depended on charcoal, timbers, and fruits did not own land and were excluded from accessing forest resources without an alternative plan. Such moves further marginalized forest-dependent actors. One informant reported that "Previous experience in engaging in charcoal burning was comfortable, but after REDD+ [MKUHUMI], things became complicated since strict procedures were imposed to access trees in the forest. You need to pay and request a permit that only lasts for one month. Then, you have to continue paying for another permit to continue with your activities."[15] These inherent social differences were muted, and the sentiments of these more forest-dependent actors were misrecognized.

The payment modality was based on a uniform formula that took the total number of the entire village population and divided the total sum of money brought in by a particular village. For instance, Village 2 received a total of approximately US$ 8857.97 (21,081,960 Tanzanian shillings), which was equally divided among 601 people, regardless of their specific social characteristics. This revealed the 'exclusionary machinery' for families with older people with no children, or divorced women with no children who received a 'single hand' payment equivalent to US$ 1.50. Village 2, which had a small population, received approximately US$ 15 (MJUMITA, 2014). Such an inequitable share of monetary incentives in Kinyope was softened by assigning an insignificant share to social infrastructure. Otherwise, for an individual to receive a below-the-poverty-line share of US$ 1.50 would have provoked massive resistance.

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[14] FGD-Male #2, Village 1, 2017.

[15] Interview-charcoal burner, #43, Village 1.

6. Conclusion

This article has explored the discursive materialities of multiple environmentalities that were practiced in two communities in rural Lindi. A poststructuralist Foucauldian political ecology approach revealed that neoliberal, sovereign, and disciplinary spaces of environmentalities were used in configuring actors' subjectivities since the project began (Collins, 2019). Additionally, it has illustrated the social consequences of practices making self-enterprising subjectivities diverge from the dominant claims of "win–win" rhetoric articulated by experts. Recent observations, similar to Scheba (2018) who conducted a study during the early stage of the project implementation between 2011 and 2012, highlights that efforts to make REDD+ manageable since the early 2010s have led to the segmentation of space and the individualization of forest-dependent actors. This resulted in a widespread adoption of commodification and displacement affecting the entire livelihood structure of the communities.

The article has highlighted how forest-dependent actors' counternarratives, faced with exclusionary environmentalities, provide reflexive and emancipatory possibilities for understanding their resistance. Illuminating these existing counterenvironmentalities sends a message that actors engage with technologies of subjectivity with a conscious mind, while creatively finding room to resist imposed power. This has consequences, including conflicts and failure. This suggests a need for more engagement with emerging contestations that claim social justice (Asiyanbi *et al*., 2019). Exploring various environmentality practices within communities in southern Tanzania has allowed us to better understand how ideas are put into action and integrated into the everyday life of people who depend on forests.

The article has also contributed to existing knowledge and political ecology scholarship, but suggests more studies are needed that critically examine and understand the dominant narratives and discourses surrounding natural resource conservation. Interrogating existing powerful discourses and revealing power structures that shape current conservation policies in the global South is a major task. Specifically, as findings from Lindi have revealed, conservation policies have major (un)intended consequences, contradictions and associated socio-ecological implications. They contribute to social inequality, and displacement. Similarly, scholars need to continue evaluating the context-specific impacts of conservation policies and potential social injustices experienced by forest-dependent communities living at the margins. Innovative approaches and solutions that consider complexities of land use, agrarian questions and local knowledges are underrepresented in the main discourses and policy discussions regarding conservation models.

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