Envisioning REDD+ and Environmentality Discourses in Lindi Community-based Carbon Enterprises in Rural Southern Tanzania

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Abstract

The paper provides an analytical lens for understanding the politics configuring experts' knowledge framing underlying "Reduced Emission from Deforestation and forest Degradation" (REDD+) Project in Lindi Rural District, Tanzania drawing from the Foucauldian concept of governmentality. Foucauldian grapples broadly with a question of power and how it becomes exercised in various intersections of sovereignty, disciplinary, biopower, and governmental mechanisms shapes power/knowledge which govern state's and actors' subjectivities. The main argument is that REDD+, as a governance mechanism, has increasingly been configured by neoliberal-market rationality. Yet, little attention has been made in Tanzania to analyze knowledge as tool of power in shaping conservation interventions. Similar to other climate change discourses, for REDD+, it is interesting to note that since 2009 during its inception, neoliberal-market narratives are instrumentalized to merge markets, enterprise, welfare and social payment to articulate its relevance. In this attempt to utilize the governmentality lens drawing from the project reports, scientific studies conducted during the implementation of REDD+ and interviews with project officials unfold inherent power dynamics. Inspired by Angela Oels, the paper analyzes the production of REDD+ visibilities, fields of knowledge, practice, and subjectivities that configure these official narratives. The paper concludes that the intention of the REDD+ producing neoliberal market-based logic and discursive practices is to reposition and create veraciously self-regulating and enterprising communities who rationally calculate benefits provided by carbon market signals.

Key words: REDD+, Governmentality, Discourse Analysis, power/knowledge

Introduction

This paper builds on Foucauldian theorisation to explore how the "Making REDD Work for Communities and Forest Conservation'' Project in Lindi Rural is discursively put into a governable regime of truth production and circulation. The underlying analytical lens problematizes power to reveal the influence of dominant ideas produced and legitimized to control forest-dependent actors' behaviour in accessing and using forest resources. The key argument is that the construction of REDD+ is driven by particular mechanisms for governing mentality/governmentality of the forest-dependent population to consent to market-based dictates. It is interesting to understand the changes from fortress modes towards calculative production of discourses of forest degradation that need to be repaired with market-based mechanisms. There is paucity of studies that have approached REDD+ in Tanzania with attention to how knowledge production becomes an instrument of power and politics. Most of the studies have addressed the unequal materiality of its implementation (Benjaminsen & Kaarhus, 2018; Svarstad & Benjaminsen, 2017; Lund et al., 2017). The articulation of REDD+ ideas started to take shape in April 2010, when introductory meetings, Free Prior Informed Consent (signifying the notion of freedom of choice) activities and training, and establishment of monitoring systems were officiated (Kibuga et al., 2011).

Existing scholarship on REDD+ inception and implementation in Tanzania concentrated in describing its policy core value as "neutral artifacts and the funding mechanisms" resulting into successive story of win-win narratives (See Lund et al., 2017).Other studies in Tanzania have focused on the materialities of REDD+ interventions on the ground, while revealing inequitable and injustice in context-specific studies in Zanzibar, Kilwa, Kondoa and Lindi (Benjaminsen & Kaarhus 2018; Lund et al 2017; Scheba 2014; Svarstad & Benjaminsen 2017). No scholarly attempts focusing on Tanzania as a case study, have analytically engaged on how REDD+ as a governable regime and its constituted technologies of shaping subjectivities are discursively reproduced despite the importance of how power is exercised through knowledge articulation is exercised as a powerful tool in governing forest-dependent groups and forests compared to other countries in such as Indonesia (Astuti & McGregor, 2015; Boer, 2017), Nigeria Asiyanbi & Akintoye (2019); Guyana and Suriname (Collins, 2019).

However, there is an increasing call to engage with the social constructivism/interpretivism of climate change strategies that are influenced by specific hegemonic discourses that informs governance

regimes (Rushford, 2007). Therefore, this paper builds on this governmentality/environmentality scholarship on forest carbon governance to understand how the same ideational/ rationalities reproduction shaped REDD+ problematization in Tanzania. In the manner of Michael Foucault's problematization of governmentality, along with Nicolas Rose (1999a, 1999b), and later advanced by Oels (2005), and Fletcher (2010) as environmentality among others; this paper provides a broad discussion on how REDD+ REDD+ experimentation was discursively practiced in Lindi Rural. The following section follows the historical trends on the problematisation and institutionalization of REDD+ and after that after that the clarification of the analytical tool that informs the entire discussion of this article.

The Historical Trend of International REDD+ Conservation Regime

Studies on climate change and REDD+ politics in developing countries has attracted considerable attention indicating multiple forms of power while inspired by different theories of power (Asiyanbi, 2016; Asiyanbi & Lund, 2020; Benjaminsen, 2014). There is an emerging concern that grapples with the intersection of the politics of forest and people's livelihoods in contesting dispossessions (Cavanagh, 2012; 2014). Mukono and Sambaiga (2016) note that climate change has drawn thoughtfulness of climate change constructed powerful discourses from researchers, advocates, and policy architects and experts, since the Rio Summit of 1992, followed by the Kyoto Protocol in 1997. The inception of REDD framing within the climate change mainstreaming is traced back to the 1990 Kyoto Protocol negotiations with no support and resurrected at the UNFCCC COP 11 in Montreal in 2005 (ibid.). The Kyoto Protocol provided an avenue for forming emission trading through three well-known mechanisms, precisely: Clean Development Mechanism, Joint Implementation, and Emission Trading (Oels, 2005:199).

Subsequently, the established REDD+ mechanism as part of the 2012 protocol of the United Nations Framework Convention on Climate Change (UNFCCC) (Mukono & Sambaiga, 2016). Indeed, REDD+ ideas, to put it specific, travel through networks and gatherings of influential professionals and agenda setters, commonly known as Conference of Parties (COPs) (Ratsimbazafy, Harada & Yamamura, 2011:615). The extent to which UNFCCC designates governmentality that has to be realized through sustainable economic development has been succinctly put by Oels, who advances that:

"The UNFCCC could be interpreted as containing elements of both governmentalities, namely of biopower and advanced liberal government. One example of this is article 2 of the UNFCCC that clarifies the objectives. An aim more related to biopower is the stabilization of the greenhouse gas concentration in the atmosphere at the level that prevents danger" (Oels, 2005:199).

This problematization modes of carbon governance to fight climate changes suggest a strong rhetoric of the *'end of history' ala* Fukuyama, and the triumph of 'we are one' besiege hegemonic truth/knowledge regime, and submission to the expert manager of the global economy within the environmental fabric rooms largely. The historical sequences of REDD+ before its take-off are well captured by Holloway & Giandomenico (2009). The available data shows that more than 42.2 billion US dollars were pledged through multilateral initiatives to facilitate the technological and intellectual grooming (capacity) in developing countries (Stephan, 2014). This went hand in hand with establishing the Forest Carbon Partnership Facility (FCPF) and the Forest Investment Program. In the same view, the UN-REDD was architected to coordinate the REDD+ regime of practices.

Mukono & Sambaiga (2016) have observed that execution of this carbon forest project has been estimated to affect more than 300 million indigenous population and members of forest-dependent communities. Similarly, other studies discern that REDD initiatives will directly distress 1 to 1.6 billion people who depend on forests who are among the world' poorest (Springate-Baginski & Wollenberg, 2010; World Bank, 2004; MEA, 2005). The architects/pioneers of REDD+ discourses build on their narrative backed up with the concept of co-benefits which is supposedly to be accrued when its hegemony becomes rationalized with a double claim of biodiversity conservation and livelihoods improvement, that is-biopolitics-is also central (Pistorius, 2012; Stephan, 2014; Hart, 2011).More important, the entire anticipated configuration of socio-nature within the vision of REDD+ is grappling to embed it with market dictates (Heynen, McCarthy, Prudham, & Robbins, 2007).

Understanding REDD+ Discourses and Power through Governmentality

Informed by scholarly engagement with the concept of governmentality from a multiplicity of interdisciplinary avenue, suffice to argue that it serves as theoretical tool which unveils reasonably the complexities of wide dimensions of regime of knowledge and practices (see for examples: Dean, 1999; Fletcher, 2010; Luke, 1999; Methmann, 2014; Miller & Rose, 1990;

Stephan, 2014; Rutherford, 2007; Lelth, 2013; Agrawal, 2005; Zuidhof, 2012). The previous problematisation of governmentality in Foucault's analytics, as we come to deconstructs in REDD+ becomes quite clear as we follow Dean's (1999:11) definition, which states:

"any or less calculated and rational activity, undertaken by multiplicity of authorities and agencies, employed a variety of techniques and forms of knowledge, that seeks to shape conduct by working through our desires, aspirations, interests, and beliefs, for definite but shifting ends and with a diverse set of relatively unpredictable consequences, effects and outcomes".

This article builds on the assumption made by the Foucauldian political ecology that institutions; both markets in REDD+ and institutions for its governance are emerging from the underlying social structure and sets of rule configured within the power-knowledge/ rationalities of government dynamics at both the macro level and micro level as fully expounded in the course of this analysis (Mukono & Sambaiga, 2016:148). Hence, REDD+ is considered to be surrounded by the global social structure arrangement of the regime of knowledge production and practice, which determine certain forms of involvements and knowledge [dominant ideas], which is possible to lead to restraining the access and use of forest resources (Mukono & Sambaiga, 2016; Forsyth, 2003).

The study induced from Foucault's problematisation of governmentality and power-knowledge intersection appears to shed more light by revealing how REDD+ discourses are embedded in climate change. The persuasion to use Foucault's idea of governmentality and power-knowledge lies in the statement that it conceptualizes 'power not as unidirectional, repressive or not always looking on a perpetrator' (Mukono & Sambaiga, 2016; Dean, 1995; Rose, 2001; Stephan, 2014). Significantly, the proposed theoretical framework stresses analyzing tendencies and shifts of social discursive practices (dominant discourse) prevailing in maintaining its hegemonic social milieu (ibid).

Mukono and Sambaiga (2016:148) point out that the "concept divulges the control of population/life or to make subjects (subjectivization) of REDD+ practices in climate change governance, and is that governmentality analytics has enlarged theoretical thoroughness in studying environmental discourses which critique the dominant environmental narratives which have inclined to be depoliticized". Further, governmentality problematization emphasizes the uses of biopower techniques, that is, forms of powers exercised over persons, specifically in so far as they are thought

of as living beings or politics over individual lives. It follows from this viewpoint that "power is certainly not a permanent and barred practice/regime, but precise multifaceted, limitless, and a calculated open game; that is, there are constant struggles" (Mukono & Sambaiga, 2016; Li, 2007a, 2007b).

The analysis in this paper focuses particularly on conceptualizing the government and mentality, which are constructed later to be exercised towards the population of Lindi Rural to respond to the macro-structural power. To be more specific, the proposed conceptualization seeks to analytically present the tactics, techniques that normalize individuals and consequently for them to adopt the same to guide their daily social practices (Mukono & Sambaiga 2016; McGregor et al., 2015) with regard to REDD+. To wind up, it is strongly argued that governmentality, which is extended in this analysis of REDD+ discourses, with the central objective to advance Foucauldian interpretation of complexities of power, it is important to reiterate once again as from the Foucault observation that governmentality entails: "the ensemble formed by the institutions, procedures, analysis, and reflections, calculations and tactics that allow the exercise of this very specific albeit complex form of power, which has its target population, as its principal form of knowledge political economy, and as its essential technical means apparatus of security" (Foucault, 1991:103). Winkel (2012), drawing from Oels (2005) and Dean (1999) summarizes well analytical framework for the study of governmentality in conservation regimes.

However, this paper deals with two aspects namely; forms of its rationality/episteme and field of visibility. Similarly, Methmann (2011:72) following Dean (2014) clarifies on each of the dimensions by pointing out that: field of visibility, picture and describes the entities of government, their connexions and assembling/ordering in space and time; the techne of government, implying all tactics, procedures, means, mechanisms, instruments, strategies, physical technologies, modes of calculations which renders reality a governable object and act on it accordingly. Methmann goes to shows that the episteme, this fits in and constitutes the problematisation and operationalization of these techniques with forms of knowledge and offers the whole logics of government. Last dimension is identities, which provides the subject positions and technologies of the self-governing individual. The remaining aspects, namely the techne of government and identities, are thoroughly discussed in different papers. They provide depth analysis of how the rationalities are executed in the hosted project communities and its ramification.

Emerging from this analytics is comparability of different types of governmentality preferably unveiling regimes of practices. Reiterating this analytics, this regime of practices, to put it differently, helps to analyse (i) field of visibility which is created by governmentality, (ii) the technologies and practices of government which is applied, (iii) the forms of knowledge/ thought collective which arise from and inform the activity of governing and (iv) the forms of identities/ self-formation which are presupposed by the practices of government (Oels, 2005; Dean, 1999, 2015; Winkel, 2012). What follows, therefore, is to have a brief look on the discourse analysis as methodological guidance; tellingly is quite important for us to locate Foucauldian problematisation of subject/agency.

Foucauldian Discourse Analysis as Methodological Foundation

The core of this paper's methodological basis is Foucauldian discourses analysis, which has emerged "as interpretative and discursive-turn in social sciences and specifically in poststructuralist theorization" (Mukono &Sambaiga, 2016:142; see also Foucault, 1991; Methmann, 2014; Stephan, 2014). Oels, (2005) inspired by Dean, (2003) identifies analytical framework for conducting discourse analysis based on Foucauldian understanding of discourses. In this paper, we utilize the same methodological basis to underscore the production of REDD+ discourses. Based on this methodological foundation REDD+ discourses are viewed as categories of statements, which are crucially not similar, reading to dialectical antecedents. It agreed that these REDD+ discourses are moving, continuously changing reading to complexities of power struggles as aptly put by Oels, (2005:190). This study views discourse as constituting of social practices laden with the complexity of power which govern discursive formations (Mukono & Sambaiga 2016; Hajer, 1995) exemplified with *social* and political power (Dryzek, 2005). In analysing REDD+ discourses based on this methodological choice, Dean, (2003) provides a guiding framework to considers, and, basically, we follow the same develop analytical category that focuses on fields of visibility to show how is illuminated, what aspects are hidden, in what ways identified problems are to be solved. Data for this including produced maps that show before and after project imagined scenarios. For the case of forms of REDD+ knowledge, we analyse forms of thoughts that are rendered from and guides the activity of governing proposed carbon projects from available lists of project documentations.

With this underlying assumption, the main focuses in this paper is to analyse multiple discourses that were produced through experts' reports, policy

briefs, scientific studies, and REDD strategies that were produced in the course of designing and legitimizing it and resulting into complex mechanisms of power and techniques of knowledge production. These discourses were reproduced both by local and international actors with vested powerful interests. Engaging with MJUMITA/TFCG production of ideas to legitimise REDD+, official pronouncements in terms of their programmes and scientific accounts, provide depth of social constructivism of critical ideas, problematisation and the underlying logic that informed the rationalities used as a strategy to brand the carbon projects to take economic reasoning as interpretive turn (Hajer, 1995).

The selected methodology foundations build on Oels' (2005:190) citing Foucault (1998) emphasize that "When discourses apply both at the level of individual and at the level of population, but they are linked up in complex ways to form an overall strategy". Therefore, uses of Foucauldian discourse analysis unveil how REDD+ were rendered governable while persuading different actors and specifically forest-dependent communities and selling Lindi Rural as problematic areas in need of market incentive to suppress forest degradation so that to contribute to global carbon metrics. To countercheck the persistence of these archived ideas, we conducted official interviews with MJUMITA/TFCG top officials to see how the reproduction of what is written shapes their subjectivities regarding REDD+ discursive production. The aforementioned methodology helped to answer the questions of in what ways REDD+ reciprocal effects of power and knowledge they warrant (Oels, 2005). At the end, we depict the dominance of neoliberal discourses that reconstructs market-based instruments rendering carbon project governable through the 'narrative of commodification'.

Re-invention of REDD+ as a new conservation regime in Tanzania

In 2009, Tanzania was pressured to transform its modes of conservation and envisioned strategies/mechanisms for governing forests and forest-dependent population, that is, biopolitics. It advanced a claim for its readiness with a view that had vast forests that form about 35.257 million hectares (URT, 2012). Building on the narrative plenty, pioneers of the project advanced that the most significant part of these forests, that is, almost 57% ha forest are found in unprotected forests which falls in Village and General lands, and only 43% ha of this forests are found in reserved forests (Forest reserves/national parks). The avoidance of the largest share of forests out of bound of restricted forest reserve in forms of open access has been proposed to result into an alarming high rate of deforestation and

forest degradation (Scheba, 2014; URT, 2012). Diverse 'ecosystem services' have been identified, which are generated by the forests, including firewood, charcoal, round wood and sawn wood, traditional medicine, game meat, fodder, honey beverage, to mention but a few (ibid). Despite its ecological and social livelihoods importance yet, its destabilization in terms of deforestation and degradation is indicated to be worrying and a missed 'market opportunity.

REDD+ in Tanzania, like as other nations, was accompanied with the establishment of a National Climate Change Committee, a National Climate Change Technical Committee, and a National REDD+ Task Forces (URT, 2012). This acted as production of intellectual techniques (Rose, 1996), responsible for inventing, refining, stabilizing, and disseminating and implementing within the western parameter of disbursing funds to create different institutions and transform experts' rationalities (capacity building) to correspond with market-based logics and instrumental reasoning. Through inculcating of that habitus just to use Pierre Bourdieu's notion, the Norwegian Government committed 500 million Norwegian Kroner (~80 million USD) reworking within the UN-REDD programme to Tanzania. This effort also attracted funding from Finland, Germany, and the World Bank's Forest Carbon Partnership Facility. Speaking in one voice, several conservation NGOs, have animated and re-aligned their problematisation in their performativity budgets and programmes to enjoin REDD+ (Scheba, 2014). The participatory ethos envisioned through 'partnership' of the private sector, universities, local and central governments, and international organizations; the REDD+ REDD+ experimentation' was disseminated and implemented by eight NGOs with funding from the Norwegian government. Tanzania has been identified as one the observatory exemplar of experiment of REDD+ knowledge gaze compared to other African countries (Scheba, 2014:27).

The economic logic of efficiency of the conventional approaches has been advanced by claiming that, locally based monitoring systems are 'cost-effective' technique to collect and interpret data on forest and carbon change equally on the social governance (e.g. Mukama et al., 2011). Additionally, a set of monetary and other compensatory mechanisms have been designed to make forest dependent actors have a choice within a constrained setting to alter their forest destruction behaviour supporting their livelihood dependent. Thus, this 'win-win' narrative, REDD+, is suggested as novelty market-based conservation being able to manage the assemblages of forests and its carbon. But also portrays the surrounding

population in a way that can transform 'their prosperity, longevity, safety and productivity' (Inda, 2005).

The acts of discursive practices to rationalize that idea were officiated onthe6[th] November 2009, funded by the Norwegian Royal Embassy in Tanzania. The first experimentation of REDD+ was renamed "*Making REDD work for Communities and Forest Conservation in Tanzania*" under the auspice of TFCG/MJUMITA in Kilosa and Lindi Rural. Until 2013 the Project had covered 36 villages, occupying 373,000 ha of which, 215,000 ha were covered by forest. Out of that, Lindi Rural covered 17 villages that had 75,000 ha of forest (MJUMITA, 2009). Reading through the envisioning of the REDD+ Project implemented by TFCG/MJUMITA, it can be clearly observed that enjoining of markets, enterprise, welfare, and social payment becomes visible (Ferguson, 2010). The project intended to "reduce greenhouse gas emissions from deforestation and forest degradation in Tanzania in a way that provides a direct and equitable incentive to communities to conserve and manage the forest sustainably". In persuasion to be experimented it asserts that, "aims to demonstrate at local, national and international levels, 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 forest at community level (TFCG, 2009).

REDD+ discourse goes on to claim that "despite the promising solutions sought in carbon markets, and its positive rhetoric of social implication of alleviating poverty through improving livelihoods mechanisms that are shown in policies and literature, still there are continuous debates. These hegemonic narratives advanced in Tanzania are similarly produced and communicated among academicians, policy makers, and activists about the effectiveness of these policy instrument" (e.g. Mukono & Sambaiga 2016:142)or what is referred to here as 'techne fix' of REDD+ subjectivisation (Bulengela 2014;Bóhm&Dablis, 2011).Even though it appears that although REDD+ has gained traction recently, it is far from meeting its promises, because of the complexities and dynamics which remain unresolved as indicated in the different REDD+ discourses (Svarstad & Benjaminsen, 2017).

In the context of this contradictory narratives/truth regime the proposed study intends to analytically enchant with central discourses/truth regimes on the examine the construction of promises for (REDD+) projects in conserving forest resources, enhancing carbon stocks and improving social livelihoods. It is further argued that the presumed discourses/truth regime

and practices have inclined to privilege the macro structural context, thereby at the expenses of social processes taking place at the micro-level. Hence, the main objective of this study is thus, to uncover, that is, deconstructs the essential knowledge production and likely social repercussion of the arguments and/or counterarguments of the observed discourses/truth regime and practices inherent in REDD+ while situating within broader climate change politics that are inherently purporting mechanisms for repairing climate crisis facing capitalist economic systems.

In this analysis, REDD+ is conceptualized as not only molded by macro processes of the truth regime but also by actors in forest-dependent communities' micro-interactions and relations. In this work, it is asserted that, using a naturalized REDD+ and its conception, acted upon and managed suggest a form of governing technologies; concealed with network of power, mechanisms of the self-disciplinary and discursive practices of the same. Accordingly, the study aims to underwrite theoretically/analytically and empirically to climate change discourse/ truth regime and practices, specifically on REDD+. At the core of this discourse analysis is to question how and why discourses of REDD+ becomes dominant and converge or diverge of the lived experiences of the forest depend communities' truth regime.

TFCG/MJUMITA's core purpose and framing indicate how governing REDD+ in Tanzania and Lindi is configured to solve deforestation and improve social livelihoods [biopolitics]. The underlying assumption deducing from the framing is to act as best scenario emulation of REDD+ ideas from the global-national-local governmentality production that presupposes monetary compensatory mechanisms (see also Holmgren, 2013) with a view of producing self- entrepreneurial habits. This eco-managerial narrative advanced by project proponents is claimed to be possible through the use of marketization of carbon and monetization of forest-dependent actors' habits through cash forms incentives for altering their 'destructive conduct' over forests. The project design is clearly articulated within the UNFCCCC (2010:1CP16IIIc) guidelines that directly comply with the 'result-based' payment in which the community is anticipated to benefit from their conservation efforts (MJUMITA, 2014) while putting their forests as capital.

(Re) legitimization of Commodification of Forest Carbon in Tanzania

To capture the motive surrounding commodification narratives that forced the move for Tanzania to grab the 'opportunity' for conserving forests through REDD+, it is vital to have a look at the National REDD Strategy. In

understanding this, the paper argues that National REDD Strategy is the process of 'calculation' to put into Setyowati's (2014) words. REDD+ constructed knowledge which discursively practiced towards the production of environmental problems that cannot be solved without commodity forms. Clarifying similar concerns, Li (2007:6) put that, "…because the government requires that the 'right manner' be defined, distinct 'finalities' prioritized, and tactics finely tuned to achieve optimal results. The calculation requires, in turn, the processes to be governed be characterized in technical terms. Only then can specific intervention be devised". The construction of REDD+ discourses as it appears in the National REDD+ Strategy and specific TFCG REDD+ Technical Reports establish itself as what Miller and Rose, (1990) regard it as an 'intellectual technology' that renders reality thinkable, predictable, and amenable for particular actions to greening Lindi rural.

Importantly, inventing the National REDD+ Strategy embedded within the national established prudential milieu justifies the earlier claim that market-based governmental rationalities are relationally intertwined with sovereign power. In this mission, the use of laws and policies became a key strategy or tactic in which the authority openly claims and bares its power of the state its power of the state openly. For instance, key result 6 puts clear governance mechanisms to act as a disciplinary mechanism upon which REDD+ commodification ideas are supposed to work within the state established parameters. It should be noted that the established land use plans, by-laws, and other classification configuration of forest lands were designed within the state laws established to control various forms interactions of actors within the surrounding forests. These established codes of conducts to for enculturation of forest-dependent actors and NGOs provided regulatory mechanisms   responsible for conducting actors with green subjectivities.

Engaging different with the National REDD+ Strategy produces discourses it becomes apparent that market failure destabilizes the economic incentives is pointed out to be a cause of uncontrolled deforestation and degradation in the forest. The National Strategy emerges as authoritative guideline for conducting the mission of greening forest conservation and social livelihood activities through carbon commodification, clearly stating that:

"Generally, the Strategy is expected to guide the implementation and coordination of mechanisms required for Tanzania to benefit from a post-2012 *internationally-approved system for forest carbon trading*,

based on demonstrated emission reductions from deforestation and forest degradation (URT, 2010:4; emphasis added in italics).

The strategy further builds an imaginary that commodification for carbon is the best path in improving environmental services and social livelihood. It anticipates that the valuation and payment of these various can be integrated into consumption patterns for its utility by users. Quite revealing, the Strategy asserts that "the adoption and implementation of REDD+ provides another opportunity for Tanzania to open up a growing market for carbon trading" (URT, 2010:2). This provides us a sense in relation to the deforestation that, it is the art of REDD+ has been conceptualized to replicate market-based models. For sure, it is portrayed that the problem is due to lack of economic drives, in which the absence of price tag to incentivize forest-dependent actors to alter their destructive behaviours by envisioning actors as entrepreneur of the self.

The strategy provides mechanisms and supporting rationale for emerging markets, enterprise, and social payment, which are indicated within its ten (10) results areas. Out of the ten key result areas, the first one is an anchor in integrating Tanzania result- based payment provided by global North, whereby greening by numbers is put in place through baseline scenario, monitoring, measuring, reporting and verification (MRV) are the preconditions for market-based REDD+. This presupposes ambition for Tanzania to integrate itself into carbon market, and this needs solid evidence of the emissions reduction credits emanating from its efforts to reduce deforestation (Stephan, 2014). Selling nature through carbon to the western capitalist countries that subject Southern Nations to compensate pollution propagated by developed countries is quite articulated in this REDD+ Strategy.

Tanzania's commitments to comply with the established international standards remind us of the other dimension of global power relations: the presence of global agencies to govern at a distance (Rose, 1999a; Methmann, 2011). Methmann (2011:74) has revealed what is advanced in this paper by pointing out that "global governmentality perspective shed light on the multiple ways through which states seek to use liberal norms, civil society or international organizations as a means to govern at a distance". In this regard, Tanzania's REDD+ Strategy, and its inherent rationality is abstracted within the discursive alignment of the global powerful rhetoric. The way it is framed provides a specific direction drawn from global Strategy of guiding the policy framing or conduct of developing

countries states that need to tape 'REDD+ as a market opportunity' (Methmann, 2011; Stephan, 2014).

Interestingly, this strategy's tenacity links the global-national-local governmentality to reconstitute itself in a market-based manner. The use of non-state organization in the implementation of REDD+ that is guided by National frameworks should be sought as a mechanism that work to necessitate the governing of global-local conservation milieu without tampering its mode of power (autonomy). The FPIC insistence on voluntarily narrative as a mode to follow fulfills the neo-liberal value of freedom as a mechanism that shapes individualized environmental responsibilisation subjectivities (Oels, 2005). The entanglement of Tanzania's REDD+ mechanisms with the global governmentality is clearly presented in a REDD Standard Review as put in these words:

"Tanzania is also Party to UN FCCC and thus as a mandate to comply with its terms regarding guidance and safeguards. UN-REDD safeguards are currently important as Tanzania is a fund recipient. Going forward, UN-REDD guidance can help ensure REDD+ is consistent with Tanzania's other obligations under international law. Further, their related implementation tools can help operationalize important standards components, such as complaints mechanisms and free, prior, and informed consent (Campese, 2011:13).

Similarly, Methmann, (2011:76) observes that, "by constituting this domain as autonomous and 'natural' entity and managing its disturbances, governmentality (re)-constitutes its basic social structures and so depoliticize them". Evidently, the analysis of Tanzania REDD+ policies guidelines, Strategy or framework reflects that matrix of governmentality that all of them try to create a panacea to conduct the conduct of forest dependent actors to comply within the market-based way in the oscillation of matrix of global-national-local governmentality.

Constructing Field of Visibilities in Lindi Rural REDD+ Project

For the sake of a reminder, *field of visibility* as one of the dimensions of governmentality analytical framework, following Methmann, (2011:72) implies the portraits. It climaxes the entities of government, their interactions, and their arrangement in space and time. Differently put, the main questions addressed in this section are; "What is illuminated, and what is obscured? And what are the problems to be solved by the project?" (Oels, 2005; Winkel, 2012:83). The interest here is to locate how deforestation and degradation problem within the purview of reduced emission is made visible

to be governable. It has been established that REDD+ is programmatic intervention considered to be a solution to forest conservation practices. This is by using new technologies and procedures to demonstrate different field of visibility informed by market-based forms of knowledge, power, and subjects become palpable.

Various studies were conducted with the view to represent concrete data that objectify the estimated carbon and biodiversity in order to be gauged within the stipulated result-payments related to the amount of emissions reductions in community carbon enterprise. These programmatic conducts of measuring and calculating, we garner a wider usage and interpretive understandings the Project Design Document portrayal of forest dependent actors residing in Lindi Rural REDD+ thought experiment depends on forest products for their livelihoods. One of these was greening by numbers and indicators commonly emphasized as Monitoring, Recording and Verification (MRV) of forest carbon is key aspect which gives the clue field of visibility of REDD+ in Lindi Rural. These numbers from MVR were used to articulate that mostly the majority of people engaging with agricultural activities have been the significant economic venture for them. Justifying the urgency of the programme, strongly it argues that the benefits package from the project can 'trade off' the opportunity cost; on this, Mwampamba et al., who are amongst project's scientists claim that:

"Through the participatory without-project scenario-building process with community representatives, all but one village stated that the forest area was going to decline over the next 5, 10 and 30 years driven by conversion of forest land to agricultural land through shifting agriculture by small-scale farmers, particularly for maize cultivation. Removal of the few remaining timber trees would also continue with new species being targeted as the most desirable species go commercially extinct from the area. Without the REDD project, communities predicted that natural resources management strategies would not change in the short nor long-term future" (TFCG, 2014:36 citing Mwampamba et al., 2011).

Through these persuasive intellectual technologies, the PDD visualize the immediacy of the intervention to alter the anti-green mentality of the actors who, among other factors, believe that poverty and 'lack of capital preventive adoption' of other livelihood activities (TFCG, 2014:36) are obstacles to produce entrepreneurial subjectivities. It follows that the establishment of "*Community Carbon Enterprise*" is to model an ideal preventive adoption mechanism to help in solving the ecological ills likely

to be disastrous in the coming 10 years through market-based incentives. The PDD put it thus:

"Based on the results of the VT0001 Tool for the Demonstration and Assessment of Additionality in VCS AFOLU Project Activities the VCS PDD for this project concludes that 'the continuation of the land-use trends of the 10 years crops before the project (i.e. continued conversion of communally owned village forest land to smallholder agriculture, primarily for annual cash or subsistence) is the most plausible alternative land use scenario in the absence of this REDD project" (TFCG, 2014:37)

With bold statement, they persuasively call for the establishment of the Community Carbon Enterprise because "*In the absence of the project communities would not be implementing community-based forest management and forest area would decline significantly*" (ibid; italics in original). Quite interesting, such visibility of various barriers like lack of internal funds and lack of commitment to establish forest reserves and land use plan are used as '*business case*' used to convince donors [the stronger] to fund in investment in this thought experiment weaker nations. Therefore, the money categorically was provided based on the programme to construct a microenterprise for selling carbon. PDD clearly claim that, "the donor money used to establish this project was specifically provided to launch a REDD project that would generate revenue for local communities through the sale of REDD credits" (p.38). Project knowledge experts of REDD+ visualize community actors as self-responsible to existing socio-ecological problems. They are fully dedicated to preserving forests through carbon entrepreneurship and marketization of livelihoods activities.

Deforestation is foremost visualized in terms of the proposed mechanism to govern forests championed with experts' changing subjectivities on forest carbon's role in abetting the global carbon emissions. The core subject position profusely echoed within the opportunity cost-logic presents subsistence agriculture in Lindi Rural as inefficient with an argument that it is dominated by slash and burn farming alternatively termed as swidden-fallow cultivation (MJUMITA, 2014:81). Thus, REDD+ neoliberal ideas that are experimented is designed in that opportunity cost-logic and clearly attest that:

One of the costs associated with establishment of village forest reserves, that will be borne by some small-scale farmers is the opportunity cost of clearing the forest….. assuming a farmer cultivates for 2 years in a row and then fallows for 10 years before cultivating

again, the 30-year (project life span) net present value using an annual discount rate of 10% of 1 hectare of land converted to farming is $303.48 (MJUMITA, 2014).

In attempting to make visible the opportunity-cost of the experimenting REDD+ in Lindi Rural, the technologies of sign systems, which aid us to use signs, meanings, symbols, or signification, are palpable. Putting price tags on the expected opportunity-cost is visualized in the forms of US Dollars ($), symbolizing that its benefits are signified in its hegemonic global exchange equivalences. Also, carbon metrics are part and parcel of making visible the tangible repercussion on investing in this conservation venture. This is clearly rationalized through economic and accountancy rationalities. Calculability of profit, discounts, hectare of land, and projection estimates are insightfully visualized to convince that investing in this community carbon enterprise is economically and financially viable move to nurture what Skoglund (2014) imaginatively rebrand it as the "*Homo clima*". The homo clima denotes the self-regulating actors based on carbon metrics. Thus, communities had to set aside existing forest to sequester carbon so that to establish baseline scenarios to be used later to measure carbon for sale.

Advancing the episteme framing of REDD+ Project in Lindi Rural

The rationality or forms of knowledge is the key aspect of governmentality theorisation. Exhaustively, Dean, (1999) and Rose (1999a, 1999b) have discussed this dimension that center towards unveiling the 'forms of knowledge that is constituted from, and enables, the practice of governing' (Dean, 2009:42). The main focus on this is to unravel how specific regimes of truth are manufactured to delineate how reality is sought to be staged. Here, the attention is not on the truth of particular words or texts, rather on 'regime of truth' that is, how truth is created (Rose, 1999a), and 'regime of practices' (Foucault 1991:75; Oels, 2005).It observes that market-based discourse enhances definite 'truth' to be claimed in such a way it becomes hegemonic conviction to make subjectivisation. The Lindi Rural REDD+ thought experiment resonate the same observed sentiments of constructing the truth that imaginary market mechanisms are ideal to motivate/incentivize good market-based ethos and establish new tactics to resolve the ecological tragedy (Astuti, 2016; Malete, 2010). The DDP clearly depicts such rationality as it states in its expected outcome that:

"The REDD payment will provide an incentive to communities to maintain forest cover, and will cover the direct costs of managing the village forest reserves. As such the payments are critical for ensuring

the longer-term climate, community, and biodiversity benefits" (MJUMITA, 2014:20)

Thus, deforestation, forest degradation, and poverty are not rationalized as a problem instead of opportunities, in the view that can be translated into an economically viable venture for community and individual prosperity. This is rhetorically imagined to be possible through the carbon enterprising [carbon marketization]. Such insistence is vividly noted as one reads its assertive expectation that the community carbon enterprise; "provides funds for development project including improved infrastructure and social service…and provides income to individuals" (ibid: 20). Interesting to note is the conviction that such carbon enterprising returns is impossible to realize except by following the market-based market rationality for the estimation of the coming ten years, especially the improvement of schools, dispensaries, roads (ibid.:38).

The discourses on community carbon enterprise that appears to the 'green economy' narrative aptly "serves as an example of how the construction of truth about the world's unsustainable development, together with the environmental economics as a new form of knowledge and field of expertise, has legitimized the invention of new governance and interventions"(Astuti, 2016:49). With a similar reason, the forest-dependent actors being labeled as 'villains' in conservational arena, that is, rationalized to be a result of lacking '*homo economicus*' rationalities to make them competitive and less dependent on forest-based livelihoods. It is convincing to claim that eluded that all the attempts by MJUMITA in collaboration with TFCG in designing and conducting various studies and preparatory activities for REDD+ to take-off in Lindi Rural, thought experiment implementers configured reality that imaginary claimed to be market-based universal truth. This is due to the fact that, any attempt to justify its viability it pertinently draws from the global intellectual machinery of experts' conservation knowledge production. This has opened room for the global north to invest in these carbon enterprises, and Norway's efforts to provide funding for this intervention denotes what Mbembe (2001:35) in Sarrault's tone presents it as "the right of the stronger to aid the weaker". Therefore, forest-dependent communities are considered investment sites where profit can accrue in which carbon that is expected to be sequestered are conserved to be later sold in the global market.

The experimentation of REDD+ ideas is famously marketed as MKUHUMI, a synonym of REDD+ in its English abbreviation, which produced and circulated powerful ideas in its endeavors to configure carbon

rationalities among forest-dependent actors. MKUHUMI in Swahili is literally translated as *Mkakati wa Kupunguza Uzalishaji wa Hewa Ukaa Inayotokana na Ukataji wa Miti na Uharibifu wa Misitu*. TFCG/MJUMITA joint effort to rationalize REDD+ at a practical level reminds us of the underlying argument that the state power to conduct the actions of actors becomes dispersed to other agencies and institutions which save the same purposes of operating the reasoning of its subject (Rutherford, 2007; Nadesan, 2008). By learning REDD+ governmental rationality/reasons, it becomes clear that external social organization through TFCG/MJUMITA acts as the indirect shaping of 'free social practices' (McNay, 2009:57). It is argued that both Non-governmental Organizations and individual autonomy are revealed not to be the reverse of, or limit to, REDD+ market-based governance. Still, amusingly it constitutes itself as its core disciplinary and biopolitical control (Miller and Rose, 2001) of forest-dependent population to interact and access forest resources in Rural Southern Tanzania.

Conclusion

It should be understood that neoliberal rationality does not stand alone in problematizing the deforestation and forest degradation crisis, rather is signified further with other forestry science knowledge claims. REDD+ problematisation and experimentation in Lindi Rural relied much on the application of scientific forestry in modeling the politics of its governance. Through forestry, scientific rationality establishes quantifiable and measurable plans in designing and managing the forests as economic resources (Astuti, 2016:55).

The communities' spatial configuration is made visible, its botanical classifications and other vegetation species, soils contents, animals of its various kinds. TFCG Technical Report by Mwangoka, Gereau, Lyimo and Perkin (2013) are core to such scientific rationalization. Another essential document is Technical Report (2010) by Kibuga and Samweli (2010) with other studies. This creates a knowledge basis on which the Project Design Document was constructed to justify opting for Community Carbon Enterprise. Thus, preserving the pristine nature of the ecological equilibrium of Lindi Rural where REDD+ is experimented is entangled in this environmental, economic rhetoric of serving forest by selling its carbon. The intention is to reposition right in creating self-regulating and enterprising communities that rationally calculate benefits provided by carbon market signals.

Thus, botanical statistics gathered by forestry scientists in Lindi Rural act as a justification strategy to rationalize its investment return in conserving

biodiversity. With the aid of statistics, Forestry scientists collected numerical data on the plant species, vertebrate species, and other things. As they report; "the survey team recorded plants, mammals and species (Campese, 2011). The above information is crucial to provide an arena for its knowledge to govern them in presupposed market-based rationality. In such undertakings, the biodiversity survey that was conducted acts as a technical device to validate that truth. However, the analysis reveals a wide range of power configurations that have softly utilized to govern both people's interaction with forest land without cohesive use force. The Foucauldian analysis is useful in showing the other side of power operations that moves through knowledge production, circulation and dissemination in moving the conservation agenda by powerful actors from Western countries and scientific experts who exert their influence to rule the other at distance. Finally, we conclude that analytical calls for critical scholars particularly in Tanzania, to understand that power is currently produced, circulated, and exercised by other means for the interests of the influential actors.

Funding

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