Can the subaltern protect forests? REDD+ compliance, depoliticization and Indigenous subjectivities

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Abstract
REDD+ regimes are accompanied by capacity-building and educational practices, which play an important role in REDD+ governance. These practices address subaltern local and Indigenous actors, seek their compliance and thereby contribute to the stabilization of otherwise all-too-fragile global carbon governance systems. In this article I analyze the governing effects of such practices by drawing on Robert Fletcher's concept of "multiple environmentalities" and Tania Murray Li's "analytic of assemblage." Empirically I focus on educational materials that have been designed for REDD+ projects in cooperation with one of the world's largest REDD+ funds, Norway's International Climate and Forest Initiative. I identify several strategies that aim at aligning diverse actors, seek to de- or re-politicize REDD+ concepts, authorize knowledge, and, most significantly, address local actors as responsible ecological stewards, who contribute to stabilizing REDD+ regimes on the ground. In total, these strategies promote programmatic subjectivities among Indigenous 'stakeholders' and contribute to a new, 'glocal' understanding of nature-society relations.

Keywords: global environmental governance, REDD+, governmentality, environmentality, capacity-building

Résumé
Des régimes de REDD+ sont accompagnés par des activités du renforcement des capacités et de l'éducation, qui jouent un rôle important dans la gouvernance de REDD+. Les pratiques s'adressent aux acteurs subalternes locales et Indigènes, cherchent leur conformité et ainsi la stabilisation de systèmes de gouvernance mondiale du carbone qui seraient autrement trop fragile. Dans cet article, j'analyse les effets de gouvernance de tels pratiques, en m'appuyant sur le concept de Robert Fletcher des «multiples environnementalités» (multiple environmentalities) et Tania Murray Li's «assemblage analytique» (analytic of assemblage). Concernant l'approche empirique je me concentre sur des matériaux éducatifs qui ont été développé pour des projets de REDD+ en coopération avec un de plus grand fonds mondial de REDD+, l'initiative international du climat et de la forêt du Norvège (International Climate and Forest Initiative). J'identifie plusieurs stratégies qui visent à aligner divers acteurs, cherchent à dé- ou re-politiser des concepts du REDD+, autorisent du savoir et les plus importants s'adressent aux acteurs locaux comme des intendants écologiques responsables qui contribue à la stabilisation des régimes du REDD+ sur place. En somme, les stratégies promeuvent des subjectivités programmatiques parmi les parties prenantes indigènes et contribuent à une conception nouvelle, «glocal» des relations naturelles-sociaux.

Mots clés: REDD+, gouvernemantalité, éducation, acteurs subalternes

Resumen
Los regímenes de REDD+ van acompañados de prácticas de capacity-building [desarrollo de capacidades] y de educación que desempeñan un papel importante en la gobernanza de REDD+. Esas prácticas se dirigen a los agentes locales e indígenas subalternos, procuran su conformidad y contribuyen así a la estabilización de los sistemas mundiales de gobernanza del carbono que, de otro modo, serian demasiado frágiles. En el presente

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Can the subaltern protect forests?

1. Introduction

REDD+ has been cherished as a policy innovation since its launch at the 2007 Conference of the United Nations Framework Convention on Climate Change (UNFCCC). The instrument aims to distribute compensation payments deriving from global climate funds to actors that have committed themselves to cultivating and protecting forests (UNFCCC 2007: 8). The compensation payments are, among others, also envisioned to be directly of benefit to local actors who practice forestry management and carry out carbon monitoring programs (Angelsen et al. 2008). In practice, REDD+ has developed into a highly diversified set of public and private funding mechanisms with various governance practices aimed at reducing emissions from forests.

REDD+ projects require intricate planning processes orchestrated by stakeholder coalitions. Their structures – highly diverse stakeholder networks from global program management headquarters to local counterparts – concentrate on planning, interaction, and monitoring practices. We can therefore regard REDD+ as a specific form of global/local environmental governance that corresponds to liberal modes of governance and connects quite unlikely actors: international organizations, private venture capitalists, national governments, municipalities, and not least, local actors (Astuti and McGregor 2015 a,b; Brockhaus 2012; Pettenella and Brotto 2012; Rowe 2015). REDD+ governance engages with these quite diverse actors and strives to ensure that the individual programs can be implemented adequately despite complex transnational structures along the global-local carbon-value chains and their potential for conflict (Goering 2015; Marigold 2015).

Research on REDD+ regimes has engaged with various aspects, for instance environmental governance (Nel 2015; Thompson 2010) and its ambiguous impacts on forests and local actors (Chomba et al. 2016; Evans et al. 2014; Gray 2017). Most research on REDD+ governance has emphasized how less interest has been devoted to the apparently soft capacity-building and educational practices2 in REDD+ that complement the financial incentives paid for forest conservation, and that occur intermediate between global and local levels (cf. Arora-Jonsson et al. 2015; Gupta 2012; Methmann et al. 2013; Mickels-Kokwe and Kokwe 2015). Especially in the case of community-based REDD+ we see how local actors – small-scale farmer communities, forest-dwellers, and Indigenous communities – become addressed and valued as responsible subjects within complex stakeholder regimes. Their compliance is appreciated as adding a stabilizing quality to the global REDD+ regime that surveys the 'conduct of conduct' (Dean 1999). Research on educational practices in REDD+ can shed light on the ways in which the stabilization of REDD+ regimes is accomplished through subtle processes of consent and compliance.

This article investigates REDD+ governance with a focus on specific educational practices in order to explore how REDD+ aims at engaging with Indigenous communities. It argues that these practices play a significant role in REDD+ governance, as they address local and Indigenous actors, seek their compliance, and contribute to the stabilization of otherwise all-too-fragile global carbon governance systems. It builds on

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2 Educational practices refer to different actions, methods or interventions that aim at imparting knowledge, creating awareness, teaching certain skills or encouraging social learning.
concepts of green governmentality\(^3\), particularly referring to Robert Fletcher's concept of "multiple environmentalities" (2010, 2017) and Tania Murray Li's "analytic of assemblage" (2007b). Empirically it focuses on educational material that has been designed for REDD+ projects by one of the world's largest REDD+ funds – NICFI, Norway's International Climate and Forest Initiative. NICFI is characterized by a 'development-oriented', norms-based understanding that seeks to intermediate between 'carbon saving goals' and community-based development, and it closely corresponds with the 'do good' intentions and motivations of Scandinavian development aid.

The following section introduces debates on green governmentality and zooms in on Fletcher's concept of multiple environmentalities and Li's practices of assemblage, which serve as analytical strategies for research on REDD+. This is followed by a presentation of my empirical findings, based on a detailed analysis of two manuals for REDD+ capacity-building with local and Indigenous communities. The article engages with existing research on REDD+ and green governmentalities and invites for further debate and ethnographic research on REDD+ education and subjectification.

2. Analyzing REDD+: multiple environmentalities and practices of assemblage

REDD+ governance oscillates between notions of control, and governing at a distance. This often results in engagement with proxy institutions in the target countries – for instance domestic executive agencies or environmental NGOs – and in shifting responsibilities to the local level (see 2017 on diffusion of responsibility). Still, REDD+ governance is designed to ensure that reliable means of control are in place that guarantee effective monitoring and certification, and may be enforced in case of conflict (Cavanagh and Benjaminse 2014; Cavanagh et al. 2017; Howson 2018). Thus, REDD+ programs are shaped by distinct dynamics of flexibility and control (Astuti and McGregor 2015a,b). In this context, the local level of REDD+ programs becomes a site of careful intervention, by financial and non-financial means. I therefore argue that we can understand REDD+ not only as a system of financial carbon compensation, but rather as a 'conduct of conduct' (Dean 1999), i.e. a strategy of education and subjectification, along which local actors advance as carriers of global carbon responsibility and become socialized into such roles through the means of education and empowerment (Astuti and McGregor 2015a; Boer 2016; Hjort 2019; McGregor et al. 2015; Setyowati 2020). This points to the hitherto scarcely recognized role of educational materials for REDD+ regimes, and particularly their subjectifying qualities (Asiyanbi et al. 2019; Kewin et al. 2015; Nel 2015). The article argues that REDD+ regimes rely on a set of educational practices which contribute to the stabilization of global/local carbon governance systems, by means of subject formation and the promotion of distinct values and responsibilities, and eventually even role models. I argue that educational materials may serve as a cornerstone for stabilizing fragile REDD+ regimes by addressing and valuing local actors – small-scale farmer communities, forest-dwellers, and Indigenous communities – as responsible ecological stewards who establish REDD+ regimes on the ground. They are cherished as agents of change, albeit ones that still are in a subaltern status and therefore in need of empowerment (Müller and Ziai 2017).

To analyze REDD+ governance and its empowering and subjectifying effects requires zooming in on its political technologies, that is, strategies, techniques and procedures, through which a neoliberal political agenda operates. Within the large and multi-faceted field of governmentality studies (Dean 1999), the debates on green governmentality and particularly Tania Murray Li's work on practices of assemblage provide valuable frameworks (Agrawal 2005; Bäckstrand and Lövbrand 2006; Darier 1999; Fletcher 2010, 2017; Li 2005, 2018; Li and Willett 2017).
Studies of green governmentality have emphasized that a growing concern for the environment plays out in a reconstruction of nature as a site for intervention and regulation by means of expert networks, calculative measurement, and with political technologies (Luke 1999; Lövbrand et al. 2009; Paterson and Stripple 2012; Stripple and Bulkeley 2015). A governmentality perspective is able to depict the "productive hegemony of certain regimes of scientific knowledge" (Death 2011: 5), that is, identifying the promotion of transformation knowledge for different actors (especially in a North-South context), the power of certain epistemologies and not least, political technologies. Furthermore, governmentality analysis sheds light on the ways in which power relations are exerted and local actors are empowered. In this regard, the modes of loosely coupled, open and flexible forms of governance come into sight and their productive but also disciplining qualities are revealed. Within this debate, Robert Fletcher (2010, 2017) has distinguished between 'multiple environmentalities' that aim at governing nature-society relations: a market-based neoliberal version, a disciplinary environmentality driven by subjectifying qualities and the diffusion of ethical norms, a sovereign environmentality visible in protected areas and strict conservation programs, and finally a truth environmentality, which draws on humans' essential interconnection with nature.

In the case of REDD+ all these varieties can be identified (Asiyanbi et al. 2019; Müller 2017; McGregor et al. 2015). While a neoliberal understanding of forests and carbon markets as valuable resources builds the general narrative, the more development-oriented programs that aim at engaging local communities emphasize disciplinary, sovereign, and sometimes even truth-related qualities, visible in the ethics and incentives they promote (Fletcher 2010). Still, Fletcher points out that the subjectifying qualities of environmentalities – that is, how certain populations negotiate the subject positions promoted by a certain environmentality – have scarcely been investigated (Fletcher 2017). For focusing more closely on this particular gap, the works of anthropologist Tanja Murray Li propose an analytical framework. Her work sits in a longer tradition of critical development anthropology based on Michel Foucault's later writings on governmentality and the transformation of statehood. Li's work especially refers to the ways in which development objectives are narrowed down to educational practices, e.g. within agricultural demonstration projects in which villagers are encouraged to adapt certain development objectives while at the same time tending to reflect about their previously 'backward' smallholder lifestyles (Li 2007a). In our case, Li's "analytics of assemblage" (Li 2014, 2017b) seems useful for identifying the educational and subjectifying qualities of REDD+ programs, i.e. the ways in which REDD+ governs nature-society relations and creates certain mentalities around conservation, commodification, and progress.

To analyze such forms of transformative development, Li refers to techniques of advanced liberal governance as forms of assemblage, that is, "the field of knowledge, practices and devices from which particular programs of intervention are derived. It is assembled under a dominant governmental ethos or rationality—a characteristic way of understanding the work of government" (Li 2014: 37). An assemblage creates a dispositif of governance by welding together disparate elements of a given policy process (Li 2007b). She distinguishes between six different practices of assemblage:

1. forging alignments
2. rendering technical
3. authorizing knowledge
4. managing failures
5. anti-politics, and
6. reassembling.

All of them can be related to Fletcher's environmentalities framework, as they echo different (and sometimes overlapping) governmentalities. Building this connection allows differentiating between a range of REDD+ regimes and a range of practices of governmentality. Altogether, this leads to a better understanding of how...
community-based REDD+ reaches out to local and Indigenous peoples and socializes them into certain roles, but also how their agency is encouraged, categorized and functionalized. Taking each in turn:

(1) 'Forging alignments' is the capacity to rearrange interests of those governing and those to be governed, resonating with a disciplinary understanding of power and interests to create resilient structures, in this case among complex REDD+ consortia.

(2) 'Rendering technical' describes the procedures through which the "messiness of the social world" (Li 2007: 265) is recaptured as a set of neat causal relations that no longer contain any ambiguities and can be displayed in the format of an effect matrix (as it is characteristic for so many development interventions). In the case of REDD+ this may refer to carbon sequestration practices, certain problematizations, and the concrete interventions REDD+ programs intend to make. In terms of environmentalities, this comes close to a neoliberal environmentality that concentrates on creating a market-friendly level playing field for commodifying the carbon-saving potential of forests, a purportedly technical process, in which market-distorting practices (certain land use or logging techniques) become problematized.

(3) 'Authorizing knowledge' focuses on distinguishing between valuable and less-valuable bodies of knowledge, which in the case of REDD+ point to the tensions between global climate expert knowledge and traditional knowledge. This may correspond with a neoliberal, disciplinary or even truth environmentality, depending on whether knowledge on climate and forest cultivation is primarily commodified, used for compliance and resilience, or in other particularly empowering ways.

(4) 'Managing failures' is a strategy for downplaying failures or contradictions, so as to stabilize authority. While this may refer to a neoliberal environmentality that again aims at singling out market distortions, this practice also corresponds with a sovereign environmentality that seeks to secure governmental authority. While this may occur within REDD+ projects, for instance when dealing with mismanagement, this aspect is of less relevance when referring to capacity-building or educational practices.

(5) 'Anti-politics' comes close to 'rendering technical', and indeed Ferguson conflates both (1989), whereas Li's perspective seems to distinguish between a more societal (rendering technical) and an explicitly political (anti-politics) notion, where technocracy is preferred over democracy. Also, 'rendering technical' focuses on the process, whereas 'anti-politics' highlights a political condition. Anti-politics therefore corresponds to a neoliberal environmentality that prioritizes markets over politics.

(6) 'Reassembling' addresses any productive practice that interweaves seemingly remote discourses, changes meanings, and creates hybrid structures. While this last notion seems rather abstract, it may bear quite fundamental qualities, for instance regarding the creation of hybrid knowledge about nature, or new, partly global and partly local subjectivities. In that sense, it corresponds with disciplining environmentalities and an interest in resilient communities, but also, fueled by a more empowering notion, with Fletcher's 'truth environmentality.'

In the following analysis of REDD+ educational material, my interest is to identify practices of assemblage to carve out their subjectifying qualities. I have concentrated on four of the six aspects:

(1) forging alignments
(2) anti-politics and rendering technical
(3) authorization of knowledge, and
(4) reassembling.
My assumption is that educational material may reflect empowering notions, but also depoliticizing ones. Furthermore, I expect that certain subjectivities – i.e. certain forms of benevolent indigeneity – are promoted to Indigenous communities as role models, just as in a similar fashion, REDD+ is an attempt "to fix Indigenous people on to the land and limit them to specific land uses" (Li 2014: 45). My aim is therefore to analyze REDD+ educational materials based on the following questions:

a) How do educational materials seek to forge alignments between the global and the local level?
b) Can we find strategies that seek to depoliticize REDD+ or render it in technical terms?
c) How is local knowledge mobilized?
d) Can we find forms of re-assemblage?

While this approach helps to examine the role of educational practices within REDD+ regimes, particularly with respect to the stabilizing effects that may arise from educational practices, some limitations appear. Green governmentality and 'governmentality analysis' have particular merits in pointing out how advanced liberal governance works as a subjectifying force through specific political technologies and certain instruments. While governmentality analysis is able to cover the programmatic dimension, the social reality is indeed a 'muddier' terrain since facing the gentle nudges of education and capacity building may also result in contestation and disidence. Analysing the didactical and governmental dimension allows exploring how certain political technologies at least aim "to reform the world according to plan" (Li 2007c: 276), yet to further explore these dimensions, ethnographic fieldwork would provide further empirical evidence.

3. REDD+ governance and its educational powers: forging alignment, (de)politicizing forest protection, authorizing knowledge and managing re-assemblage

The activities of NICFI (Norway's International Climate and Forest Initiative), the world's largest REDD+ fund, provide an insight into the educational practices of REDD+ programs. NICFI became operational in 2008, and it is based on a multi-channel approach, which means that Norwegian development assistance supports other multi- and bilateral REDD+ funds, such as the Congo Basin Forest Fund and the World Bank's Forest Investment Program. NICFI is characterized by a "results-based, pay for performance approach" (NICFI 2014: 2), that aims at emphasizing national ownership of REDD+ strategies and safeguarding the rights of local people, all based on the traditionally strong understanding of ownership in Scandinavian development policies. The approach has been cherished for its 'remote' governance, i.e. a delegation (at least envisioned) of authority to national focal points (Norad 2012, 2014). It is driven by a development-oriented, norms-based understanding of green finance that seeks to inter-mediate between 'carbon sequestering goals' and community-based development. This played out in NICFI signing Memorandums of Understanding (MoUs) with national actors, while overall keeping a distanced, 'hands-off' role regarding responsibilities or intervention. The pre-selection of projects and countries is based on their individual capacities for forest governance and monitoring/certification activities, visible for instance in the existence of monitoring systems or even remote sensing of land cover.

Overall, NICFI seeks to support a view of REDD+ that goes far beyond mere 'dollars for tons-initiatives', that would focus only on quantitative carbon saving goals (NICFI 2014; NORAD 2014). NICFI's approach includes a specific 'Civil Society Support Scheme', which seeks to increase participation by Indigenous peoples and local communities in monitoring and sustainable forest management, and also supports local communities' rights to land and fair benefit-sharing mechanisms (NORAD 2014: 9). The scheme regards building alliances between civil society and research institutions to be crucial, and to base any REDD+ activities on a strong civil society base, thereby echoing the discourse of climate resilience⁴ (NORAD 2014: 7).

⁴ The debate on climate resilience aims to enhance the adaptive functions of humankind and ecosystems, especially bearing in mind the vulnerability of certain civilizations and ecosystems in the global South. According to the advocates of the resilience concept, resilient civilizations are able to flexibly react to changing ecological conditions, as they are well aware of preventive behavior. In this sense, resilience marks a break with perceptions of indigenous or peasant communities as...
Two target groups – knowledge holders/disseminators as well as vulnerable groups such as Indigenous peoples and local people – are addressed through capacity-building and awareness raising measures. This includes trainings in monitoring and certification, and also support for formulating socio-ecological safeguards. Many of NICFI's projects follow a 'knowledge-generating' logic that intends to broaden knowledge over forest resources, land use and forest protection, in order to develop country-adequate monitoring and certification systems. Thus, a strong educational component is visible in learning and training materials that have been developed in collaboration with Indigenous initiatives and transnational NGOs such as the World Wildlife Fund or Conservation International, that implement NICFI projects. Overall this contributes to an educational agenda that seeks to raise consciousness not only about local forests and their endangerment, but also aims to transcend people's understanding of forests towards one that fulfils planetary functions in saving carbon dioxide. This becomes visible in several projects within the current funding period that seek to improve Indigenous control over forests, or aim at "educating Amazon peoples to defend their own territories." Furthermore, NICFI has been active in supporting media coverage of forest conservation, by financing the Pulitzer Center's Rainforest Journalism Fund through a grant worth US$5.5 million. Overall, NICFI's approach has been highly influential for the global REDD+ agenda in promoting community-based REDD+, rights-based approaches, and participatory forest management. A recent evaluation in 2017 by Norad (Norway's development cooperation agency) found that NICFI's projects had been empowering for local and Indigenous communities, especially in terms of awareness about rights and land use, but that this has not resulted in political change and a real reduction in deforestation (Norad 2017).

Two manuals, which have been widely used by NICFI's project partners especially in South East Asia, and that were financially supported by NICFI and Norad, have been selected for analysis. The handbook *What is REDD? A guide for Indigenous communities* (IWGIA 2010) serves as a 'down to the ground' example of REDD+ education. Its editor, the 'International Work Group for Indigenous Affairs' (IWGIA) is a Danish-based NGO that advocates for Indigenous peoples' collective rights. Founded by anthropologists, its roots go back to early 'scholar activism' engagement in the aftermath of the 1968 protests and activism. IWGIA's main concern with REDD+ is to secure Indigenous land rights and the right to prior informed consent. The Manual itself provides basic information on the UNFCCC system with specific attention to mitigation and adaptation strategies. It concentrates on market-based instruments and locates REDD+ in this context, yet also states that the best way forward would be to fundamentally change production/consumption cycles and lifestyles.

In contrast, the second manual, *A training of trainers manual for REDD+: for community level facilitators* (RECOFTC 2012) serves as a handbook for local and Indigenous community trainers, who are encouraged to act as representatives for 'community-based REDD+. The trainings are envisaged to take about five to seven days, including one or two days reserved for field exercises. A considerable part of the manual is dedicated to participatory training methodology, such as group exercises, mapping or work with case studies. The second part of the manual focuses on technical REDD+, i.e. measuring and calculation skills in order to train the community in the science of carbon forest management. The very last part of the manual briefly focuses on deficient, vulnerable, needy or 'underdeveloped.' However, the integration of resilience into global political agendas as a meta-narrative has faced criticism, as the concept can also be understood as a blueprint for diminishing non-conditional lines of solidarity for the sake of a neoliberal, individualist agenda. (see Brassett et al. 2013; Howell 2015; Joseph 2013; Reid 2012; Zebrowski 2013).

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5 See https://norad.no/en/front/funding/climate-and-forest-initiative-support-scheme/grants-2013-2015/projects/ Last Access May 9, 2020.
6 See https://pulitzercenter.org/blog/pulitzer-center-launches-5-year-rainforest-journalism-fund Last Access 8 May 2020.
7 And yet, NICFI's REDD+ program has come under scrutiny. The claim is that while ODA spending on REDD+ has been high, neatly correspond with Norway's self-image as a humanitarian superpower, this has not been met by a quantifiable effect on forest degradation (Hermanrud and de Soysa 2016).
8 The IWGIA manual is promoted by the Forest Peoples Programme, by the Asia Indigenous Peoples Pact (AIPP), by the Nepal Federation of Indigenous Nationalities, by the WWF's Capacity Building Initiative on REDD+, the Coalition for Human Rights in Development, and the Philippine Tebtebba Foundation.
9 The RECOFTC manual is promoted by the UN's Climate Technology Centre and Network, by the Open Development Mekong Initiative covering Cambodia, Myanmar, Laos, Thailand and Vietnam, and by the Japanese Institute for Global Environmental Strategies.
on the fundamental question 'Do we want REDD+?' Here the concept of prior informed consent is introduced, followed by an assessment of local REDD+ readiness. The Thai NGO "RECOFTC – The Center for People and Forests", who edited the manual was founded in 1987 by agroforestry scholar Somsak Sukwong. RECOFTC focuses on capacity building for community forestry in the Asia-Pacific region.

Forging alignments: how to mobilize local communities for a global cause?

Forging alignments refer to the potential of a policy, program or initiative to create alliances between disparate actor groups. This goes as far as coining common interests shared by those governing and those to be governed. In the case of REDD+ this refers to the ability to create narratives to which a broad and diverse range of actors may subscribe, or, in ideal case, adopt and transfer them in accordance to local structures, so that local actors support a global agenda. Educational materials play an important role here, as the concepts of climate change, carbon sequestration and not least the role and agency of local communities are complex issues that need to be facilitated based on didactical tools that mobilize local knowledge and intertwine it with western environmental knowledge.

In this sense, the IWGIA guide puts a lot of effort into creating a mutual understanding of climate change, and localizes this issue within the everyday life of communities. Describing in very basic terms phenomena such as 'climate change', 'greenhouse effect' and not least the process and climatic effects of the Industrial Revolution, we find that climate change is problematized as a phenomenon basically caused by people in the global North due to "their energy-dependent and wasteful lifestyles" (IWGIA 2010: 11), yet heavily affecting vulnerable societies in the global South. As such, these problematizations follow the lines of the "imperialist lifestyle" (Brand and Wissen 2017) argument. Climate change is portrayed as a force that intervenes into Indigenous lifestyles through disasters, droughts, and unpredictable weather phenomena, thereby causing not only agricultural problems, but also socio-economic distortions, for instance lack of income and induced labor migration. These strategies for problematizing climate change seem very locally 'rooted', as they do not just follow the lines of climate expert knowledge such as the IPCC reports, but also highlight dangers for traditional livelihoods, specifically for women as a marginalized group. The manual forwards an understanding of climate change that eases engagement with an otherwise highly abstract concept and clarifies how and why local REDD+ activities may contribute to carbon reduction on a global scale. By portraying examples of other Indigenous communities, who have benefitted from participating in REDD+ programs, the guide promotes following these examples and learning from each other.

In a comparable way, the Training the trainers manual develops alignment strategies for community-based REDD+. One example is a mapping exercise (RECOFTC 2012: 19-20), which encourages the participants to become aware of their own role, but also of their capacities to connect with umbrella groups or UN organizations. Here, the envisioned role is that of a "stakeholder", i.e. a universal status, that creates a sense of equality so typical for stakeholder governance (Bäckstrand 2006). The complementary reading material supports this, by depicting various stakeholders in a four-field-matrix according to interests and influence. Indigenous peoples as well as 'vulnerable groups' (such as women in general or Dalit people) are considered to have low influence, yet a high interest in forest conservation. Consequently, their activities are summarized as "forest management, …plantation, guard and care", whereas genuinely political activities – i.e. any further reaching agency – are reserved to all other stakeholder groups, which in fact clarifies who is subaltern and who is articulate (RECOFTC 2012: 54). The workshop participants are encouraged to become aware of their (subaltern) role, and discuss how their communities could make REDD+ more effective and efficient (RECOFTC 2012: 21). Furthermore, the manual suggests certain stakeholders as potential partners, such as NGOs or the private sector, who might act as amplifiers. Another example can be found in an exercise on eco-tourism, where the participants are encouraged to compare "ordinary tourists" with "eco tourists", a comparison that ends with an entirely positive portrayal of the latter (IWGIA 2011: 51). Connotations such as "respect for local people as caretakers", "interested in local foods", "bring their own bags", "seldom cause pollution" (IWGIA 2011: 52) construct an archetype of "the ecotourist", who serves as an almost natural ally for the Indigenous role models that are created throughout the manual. Overall, Indigenous integration into the
stakeholder universe does not seem to raise greater awareness of power relations (and their interchangeability), antagonists or sympathizers, but concentrates on training them to be good stakeholders, who know their place.

**Rendering technical or rendering political? REDD+, politics and pragmatism**

'Rending technical' refers to the creation of rational, causal relations and can be understood as "the work that must be done to represent the unruly array of forces and relations on the forest edge as a bounded arena in which calculated interventions will produce beneficial results" (Li 2007b: 270). In contrast, 'antipolitics' aims to "re- pose political questions as matters of technique, and to close down debate about the legitimacy of forest laws and the distributive effects of particular arrangements." (Li 2007b: 279). The two are quite closely related and sometimes used interchangeably.

REDD+ can indeed be considered a political strategy that renders the complex set of socio-ecological relations and Indigenous cosmologies technical by reducing them to their mere carbon-offsetting functions. In this fashion, both manuals tend to promote pragmatic strategies for coming to terms with REDD+, but also aim at raising awareness about collective rights for Indigenous and local peoples. The IWGIA guide does so by zooming in on climate resilience, which is portrayed as a solution both to climate vulnerabilities and adverse effects of climate change. This also serves as a ‘hidden agenda’ for the decision on whether to participate in REDD+ activities or to abstain from engagement (IWGIA 2010: 26). Participation in REDD+ projects is portrayed as a strategy that improves adaptive capacity and should therefore be considered positively by Indigenous communities. That way, REDD+ is framed as a ‘force for good’, albeit as a force whose impact on land rights needs to be evaluated carefully. Overall, REDD+ is presented in fatalistic terms suggesting that there are no viable alternatives to participation: "REDD+ has a very real potential to affect your rights to use, own and manage your lands and resources. It may affect your whole way of life, for better or for worse." (IWGIA 2010: 58). This can be considered as a way of downplaying the political realities and presenting a merely pragmatic understanding that does not leave space for actual political engagement, but concentrates on technical implementation. However, the manual also encourages greater awareness of the potentially harmful impacts of REDD+ on Indigenous livelihoods (IWGIA 2010: 58). It does so by giving information on the collective rights that have been guaranteed under the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) and provides checklists on how UNDRIP could also secure Indigenous rights in relation to REDD+. These checklists may facilitate empowerment and political participation of Indigenous communities, as they facilitate a stock-taking of a group's potentials and capacities. Potential negative consequences of REDD+ are analyzed thoroughly, and the merits of rights-based activities are explained with equal clarity, albeit with a 'win-win-win solution' as the most welcomed ideal. Overall, these educational practices can be considered as a strategy for rendering political the technical nature of REDD+ regimes, as Indigenous communities are encouraged to become aware of their socio-ecological, if not political agency. This is contrary to the expectation that the REDD+ educational materials in general play down any political agency in relation to agroforestry carbon sequestration.

Doing so, however, requires at least basic compliance with the logics and mindset of REDD+ programs, which means in essence to accept a distinct nature-society relationship and its carbon-offsetting functionalities in the first place, that is, the fundamental idea of nature as a quantifiable and tradeable resource. This points especially to the simplification of forests as ecosystem services within the REDD+ framework. Conceptually this maps the roles and relations of the human-ecosystem interface precisely, yet also introduces an understanding of nature as having quantifiable and universalized functions. While this differs considerably from Indigenous cosmologies, this particular understanding is an important part of the REDD+ learning agenda, at least when the long-term objective lies in educating Indigenous peoples to become valuable and reliable (albeit 'critical') stakeholders. Here also, the Anchorage Declaration10 is mobilized in an ambivalent manner, as it sets

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10 The Anchorage Declaration was adopted by Indigenous Peoples' Representatives at the Indigenous Peoples' Global Summit on Climate Change on April 24, 2009. Its 14 recommendations identify binding emissions targets, call on the UNFCCC to establish formal participatory structures for indigenous peoples, and emphasize traditional land use and land ownership practices of indigenous peoples.
an agenda for Indigenous agency that highlights activities clearly in line with REDD+ policy goals. Remarkably though, the manual promotes political strategies that mostly mirror western political culture, for instance by suggesting to "write strategy papers on REDD and the issues of technology, finance, adaptation and mitigation, and capacity building. Help to ensure that all initiatives under REDD recognize and protect the rights of Indigenous peoples, including their land rights in accordance with traditional practices and customary laws" (IWGIA 2010: 87). This may feed political co-optation by integrating protest and resistance through rights-based approaches and turning them into articulate agency that is in line with the register of global non-governmental agency (e.g. filing claims, creating media awareness, lobbying your MP). While this may indeed support people in claiming their rights, it may also support silencing or at least deradicalizing tendencies, driven by the aim to differentiate between more apt and legitimate and less apt and legitimate political articulations. This is unsettling given the fact that Indigenous resistance against REDD+ programs has found many forms of articulation that do not mirror or rely on western political expression, yet are not considered as equally legitimate (see Dehm 2016 and Walbott 2014 on resistance versus inclusion; Benjaminsen 2014; Hein 2019).

The Training the trainers manual follows similar lines of argumentation in proposing a problem-solving approach by stating that the main learning objective of the REDD+ module was to "assess the costs and benefits of REDD+", a goal that implies that any affected issue, be it land use, cosmology or gender relations can be narrowed down to a 'pros and cons' dichotomy according to the means of economic rationalization. But this results in the downplaying of possible controversies, for instance between the concept of ecosystem services and an understanding of land as sacred or indivisible, as it is upheld in Indigenous cosmologies.

In general, we find that controversies are kept at a low-intensity level and are presented as things that needs to be resolved in a rational manner. In doing so the manual does not take sides for or against REDD+, but aims at supporting communities in retaining control over projects when cooperating with external partners. Against this backdrop, Indigenous peoples find themselves receiving largely positive connotations. In the introductory module the basics of Indigenous participation are explained and justified: on the one hand, participation should happen out of democratic necessity, recalling the longstanding battles of Indigenous representatives lobbying for fair participation and prior informed consent. On the other hand, the manual strongly underlines the strategic role of Indigenous participation, by praising unique Indigenous capacities for forest cultivation and carbon storage (RECOFTC 2012: 27). Indigenous participation is thus regarded as a 'make or break' cornerstone for well-functioning REDD+ projects, yet not as an end in itself. We could therefore argue that the REDD+ education implicitly values Indigenous participation, yet mostly in a functionalist way, rather than for its genuine political or emancipatory potential.

"Know your carbon": defining and valuing REDD+ knowledge

Local forest knowledge has advanced as a crucial factor for carrying out forest protection programs. Indeed, traditional knowledge has become a valuable source for safeguarding successful REDD+ (Kewin 2014). Still, to function in the way that is envisioned, local knowledge needs to be transformed into data, so that it corresponds with scientific forest protection agendas, i.e. it needs to be rationalized and standardized (Danielsen et al. 2010; Fry 2011; Larazzábal et al. 2012). It thereby acquires a new, less messy and more rational quality, which is in line with western knowledge on forest ecosystems and their carbon-saving capacities (Li 2005: 389). For NICFI, questions of validating and integrating forest knowledge for carbon-saving agendas are of high significance, indicated by many projects in the current funding period.11

In this context, the IWGIA guide intensively engages with knowledge production and promotes 'translating' global climate knowledge into local knowledge systems and vice-versa. The guide values local biodiversity knowledge, and aims at creating a hybrid body of knowledge that connects various sources without creating a hierarchy that would privilege expert knowledge. This can be considered as an empowering move, and more so, since connections to other Indigenous communities and their repertoires of local knowledge are made. Still, the guide downplays contradictions between these sources. It stays silent on the aspect that local

11 See for instance a multi-country project focusing on Indigenous peoples as carbon stewards: https://norad.no/en/front/funding/climate-and-forest-initiative-support-scheme/grants-2013-2015/projects/indigenous-peoples-as-guardians-of-the-rainforest/ (Accessed May 9, 2020)
knowledge might lose some of its particular qualities (for instance in relation to certain Indigenous cosmovisions). Indeed, embedding Indigenous knowledge into a global body of forest-related knowledge, may contribute to the commodification of biodiversity, for instance due to bioprospecting activities (Neimark 2015; Neimark and Tilghman 2014).

The Training the trainers manual puts even stronger emphasis on knowledge as a fundamental force for good. In this regard, 'carbon knowledge' is advanced as a new body of knowledge that interweaves traditional knowledge on plant biodiversity, farming, and nature-society relations with global expert knowledge on climate change and carbon monitoring. Indigenous traditional knowledge and its positive impact on agrobiodiversity is mentioned extensively, and the manual argues in favor of mutually supportive cultivation strategies that put Indigenous peoples in a key position as sustainable and responsible carers of nature: "Their intimate knowledge of their environment and biodiversity can form the basis for planning and developing regulations on how the forest can be used in a way that allows both people and other species to live together, and thus allow the rich biodiversity of our forests to survive." (RECOFTC 2012: 42). This kind of win-win solution serves as a basis for underlining the need to train communities in 'skills' that are prioritized by the learning agenda, namely acquiring technical knowledge about MRV (Measuring, Reporting, Verification) systems. In this regard the manual emphasizes that the participation of stakeholders with good technological knowledge is highly valued for successfully carrying out MRVs, as a complex methodology needs to be acquired by the community. This comes at a price, not only as it requires intense training and time-consuming engagement, but also as the adoption of standardizing and quantifying methodology may eventually change the perception of nature in a remarkable way, i.e. towards a quantification of nature. Yet this may also culminate in productive engagements with the local meanings given to nature, forest, and political ecology (Gupta et al. 2012; also see Astuti and McGregor 2015a on governmentality analysis). Nevertheless, community-based carbon monitoring, and thus the creation of hybrid carbon knowledge is portrayed as a universal and empowering methodology that is useful for any community, for instance in order to counter allegations of unsustainable land use, or in order to be in a better negotiation position towards governments (RECOFTC 2012: 112). "Know your carbon" is therefore coined as a slogan, that advocates for an authorization of carbon knowledge as a universal truth, and suggesting that there is no sensible reason for abstaining from certification systems.

Practices of re-assemblage: towards a planetary subjectivity?

Practices of re-assemblage refer to the productive effects any environmentality may provide for nature-society relations. Li's last category defines re-assemblage as "grafting new elements onto the assemblage, reworking existing elements for new purposes and transposing the meanings of key terms" (Li 2007b: 285). Indeed, REDD+ is not just a complex governance tool that aligns several stakeholders under the general carbon storage narrative. Rather, it bears a productive quality, as it contributes to a new, hybrid understanding of nature-society relations and Indigenous stakeholder roles, which is based on the promotion of programmatic subjectivities and on pedagogical strategies for socializing Indigenous communities as responsible stakeholders.

This becomes visible when considering the ways in which the IWGIA guide addresses Indigenous actors: as forest stewards powered by unique capabilities. Always speaking of 'we' and 'us', the guide universalizes indigeneity and suggests a dense connection between authors and addressees. Throughout the guide Indigenous addressees find themselves being described in outspokenly positive terms, i.e. as being not only deeply connected to 'sacred' nature, but also equipped with outstanding capabilities:

Indigenous peoples have an incredible capacity to adapt. They often live in extremely difficult environments like deserts, high mountains or the Arctic, and have been able to adapt to changes in their physical environments […] They are already responding to climate change with their own innovative adaptation measures, based on their traditional knowledge. (IWGIA 2010:27)

Also, they are regarded as 'the natural' advocates of sustainable development (IWGIA 2010:12). These capabilities are highly appreciated, as they are the ones that qualify Indigenous peoples as true carbon-savers:
We produce much of what we need ourselves, and we do not consume a lot. This means that our ways of life emit very little carbon or other greenhouse gases into the atmosphere. And because we nurture our environment and use resources sustainably, we enhance the capturing (or sequestration) of carbon in the natural world. In the words of scientists, our way of life is in many cases even 'carbon neutral'. (IWGIA 2010: 13).

In this sense, the manual promotes a hybrid identity: a form of indigeneity that is (re)rooted in tradition, but is equally driven by new planetary commitments such as offering primary care for the planet's forests. Indigenous peoples are thus regarded first and foremost as forest stewards that could fulfil a highly responsible job, not only for themselves, but also for humankind's survival on planet earth. Indigenous identities acquire a new meaning that transcends local roles and realities to the planetary level. We can consider this reinvention of indigeneity as a form of re-assemblage, that create dense connections among a set of REDD+ stakeholders.

With even more rigor, the *Training the trainers* handbook reflects on the ways in which engagement with REDD+ may fundamentally change Indigenous livelihoods. On several occasions the manual focuses on Indigenous spirituality, traditional knowledge, and land use habits. Against this backdrop, the manual also points out that participating in REDD+ ultimately means change: changing land use practices, MRV trainings, production of carbon knowledge: "When you consider engaging in a REDD+ project, you must be willing to make changes and adapt some of your land and forest use practices." (RECOFTC 2012: 156) or "refrain from doing certain things" or to "engage in new or unfamiliar activities which are necessary to make the REDD+ project work" (RECOFTC 2012: 32). Here, the manual gives the impression that Indigenous identity was something stable, rooted in ancient traditions, while also proposing that change was unavoidable, even though posing a huge challenge for Indigenous communities. Out of this dilemma, it suggests a middle way – the possibility to open up to REDD+, but declare small amounts of sacred forest as untouchable, which would result in fewer carbon credits, but would eventually be worth the money. Many of the best practice examples given from Filipino and Indonesian peoples underline that there actually is a solution-oriented way that can allow keeping traditions, but also embracing future challenges guided by a partly-positive, partly-skeptical spirit. Another example is the module on Payment for Ecosystem Services (PES). Here material conflicts over payments are broadly discussed. These are quite likely to occur in any forest protection project, e.g. as unequal distribution of benefits, improper in-kind benefits, or conflicts over individual versus community-wide payments. In this context, the social and cultural costs of participating in REDD+ projects are outlined with due respect to Indigenous cosmologies:

The loss of certain forms of land use may actually bring about a drastic loss of identity. A good example is shifting cultivation. In many Indigenous communities, the ritual cycle is intricately linked to shifting cultivation and there is no other activity that can replace that. It may also lead to the disappearance of labor exchange or collective labor, which is often found in shifting cultivation. This will again have an impact on the social relations within a community. (RECOFTC 2012: 71)

Thus, by expressing empathy for the tensions and dynamics of Indigenous communities and by offering examples of communities elsewhere to identify with, the manuals build a fertile ground for developing role models and for the socialization of Indigenous communities as responsible stakeholders with almost superhero qualities as change-makers, protectors and planetary guardians. The manuals promote role models, which are based on Indigenous cosmologies and livelihoods, but are transferred to a REDD+-compatible context. As examples of programmatic subjectivities, we find portrayals of MRV certification experts, whose expertise is based on hybrid biodiversity knowledge stemming from traditional and scientific sources. Another role model is the smart community organizer, who is able to speak the languages of project cycle documents and carbon calculation sheets, but also identify minorities' needs and serves as an eloquent protector of sacred spaces. Overall this contributes to a reinvention of Indigenous identities as resilient ecological stewards on a planetary mission, while staying silent about the more material aspects of these roles, such as the labor conditions of this
new "eco-precariat" (Neimark et al. 2020). Eventually the effects of these educational practices may lie in their ability to work as a subjectifying and reassembling force that promotes hybrid Indigenous subjectivities that are able to intermediate between well-established traditions (cultivation practices, plant-genetic knowledge, plant-based cosmologies) and new practices of care. By framing forest conservation as an act of planetary care with almost spiritual quality, traditional and scientific motivations for forest cultivation become interwoven.

**4. Discussion and conclusion**

REDD+ has become a shapeshifter. REDD+ initiatives mirror a broad range of environmentalities, be it disciplinary, sovereign or sometimes even truth-related orientations that inform theories of change, program designs and actor networks. While a critique of green funds that consider REDD+ mainly as a business model is easy to frame in terms of commodification, more ambiguous programs that speak the language of 'carbon sinks', but also the language of 'capacity-building' and 'empowerment' are more difficult to assess. In these cases, green governmental approaches may contribute to a better understanding of REDD+’s productive powers, and especially of the ways in which an engagement with those who are considered 'subalterns' takes place. In this regard, Fletcher's concept of multiple environmentalities (2010, 2017) offers the potential to explore in closer detail how certain REDD+ programs address, discipline, and empower local actors, and how this discovery of 'the vulnerable' results in new ambivalent roles. For doing so, Li's "analytic of assemblage" offers a heuristic that allows identifying certain governmentality practices that seem characteristic for today's global (or rather: glocal) environmental governance. Educational practices represent a scarcely-touched area of REDD+ programs, even though they play a vital role for the socialization or subjectification of 'good' local stakeholders. In this sense, Li's analytic of assemblage sheds light on the distinct qualities educational practices may have in terms of forging alignments, depoliticizing (but also re-politicizing) certain activities, (de)valueing and commodifying local knowledge, or even recreating hybrid nature-society relations.

As the NICFI initiative is by definition not considered a mere 'dollars for tons' program, but rather one that aims at capacity-building, the educational material used for such purposes corresponds especially with the disciplinary and truth environmentalities outlined by Fletcher. References to truth environmentalities do apply as far as Indigenous cosmovisions and nature-society relations (or more precisely: the absence of this particular dichotomy) are valued. Overall, the REDD+ training manuals are designed in a way that addresses local and Indigenous populations and encourages them to engage in carbon-saving activities.

In this regard, both manuals seem to fulfill a crucial role for subjectification and socialization, as several practices of assemblage could be identified: *Alignment* serves as a central strategy in a horizontal sense (connecting Indigenous peoples from various REDD+ projects) and in a vertical sense (integrating them into the global-local carbon value chain, mostly through monitoring and certification activities). The alignment practices refer to market-oriented integration into the carbon value chain, but they also promote transnational solidary alignment, which may also reflect a 'truth environmentality.' Both manuals aim at supporting Indigenous communities, by raising consciousness and awareness, and therefore do not in general bear depoliticizing qualities. Rather, they may also contribute to empower Indigenous audiences and create awareness about REDD's political qualities, instead of simply feeding into the lines of Li's 'rendering technical' effect. This is an unexpected finding, which however matches well with the narratives of empowerment or climate resilience that pervade REDD+ programs. Still the presentation of REDD+ as an irresistible force that cannot be avoided, but only instrumentalized for benevolent causes, adds a depoliticizing quality. In this regard, especially the *Train the trainer* manual contains many examples of downplaying potential controversies. Here, some depoliticizing tendencies become visible by 'rendering technical' typical controversies, for instance through cost/benefit assessments.

The suggestion that there was always a 'third way' for coming to terms with REDD+, that is, a solution-oriented compromise, points in this direction, while at the same time marginalizing the experience of struggles over politics and power (Astuti and McGregor 2015b). This is even more the case regarding the 'know your carbon' trope that suggests there is literally no alternative but to participate in REDD+ programs, which is in essence an understanding that downplays a long history of social movements and Indigenous activism on REDD+. These tendencies to depoliticize or render technical also follow the lines of a neoliberal
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environmentality eager to create win-win solutions and to promote western-liberal problem-solving strategies as the universal form of appropriate political agency. This can be understood as co-opting and reframing political resistance into stakeholder articulation contexts. Accordingly, this may contribute to dichotomies between 'legitimate' forms of contestation that follow the western-liberal model of public demonstrations, NGO activism and parliamentary lobbying on the one hand, and 'illegitimate' forms, such as grassroots movements and fundamental rejection of REDD+ on the other hand. Still, several re-politicizing aspects also speak to a 'truth environmentality', as Indigenous political agency is encouraged, albeit in a westernized form of political agency. Lastly, the 'reassembling practices' eventually intertwine these two environmentalities and contribute to the promotion of multiple, hybrid identities and hybrid epistemologies: traditional and new global roles, as well as traditional and scientific knowledge get interwoven.

Given that NICFI's educational material is very much bottom-up oriented and designed in an ostentibly empowering manner, we can conclude that NICFI has been influential in designing a particular format for educational practices on REDD+: one that speaks the language of empowerment, suggests bodies of hybrid carbon knowledge, carefully politicizes the vulnerable and subaltern, but also integrates acts of civil disobedience, and, most significantly, promotes a programmatic subjectivity that is rooted both in Indigenous cosmologies and global carbon policy-making. Eventually this culminates in the promotion of hybrid nature-society relations that cherish Indigenous peoples as true forest stewards with an almost planetary responsibility, but at the same silences Indigenous agency for the sake of liberal problem-solving strategies. As a whole, these educational practices follow a tradition of 'improvement strategies' in postcolonial contexts, which has been described by Tania Murray Li as "teach[ing] natives to be truly themselves" (Li 2007: 15).

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