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UNU-IAS Policy Report

Strengthening Development in International-Local Institutional Linkages in REDD+: Lessons from Existing Forest-Carbon Initiatives



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Strengthening Development in International-Local Institutional Linkages in REDD+: Lessons from Existing Forest-Carbon Initiatives

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Abstract

This study seeks to understand how best to connect local and international institutions based on lessons learnt from existing initiatives in the forest sector that aim to achieve greenhouse gas emission reductions (often referred to as 'forest-carbon' initiatives) in order to inform the current debates and actions on REDD+ (Reducing Emissions from Deforestation and Forest Degradation in Developing Countries). REDD+ can be interpreted as an example of a global payment for ecosystem services (PES). There are many PES initiatives involving carbon stocks in forests around the world, operating at different scales and with various scopes. This report analyzes some of these initiatives to highlight the key factors enabling the effective matching of local institutions with global institutions to achieve global environmental objectives (e.g., GHG reductions) in the context of local development priorities (e.g., income generation, increased participation in resource management, fairness in access of resources, secure land tenure) and inherent trade-offs at local level.

1. Introduction

Knowledge about the way policies are implemented at the national and local level is fundamental for creating effective international development interventions¹ and environmental regimes. However, a mismatch between an international governance system and the national and sub-national situation and initiatives already in place leads to ineffective interventions and regimes with regards to implementation, and leads to trade-offs among the different goals of development. There is often a decoupling between the networks and institutions working on the ground and those coming from the top (Puppim de Oliveira, 2014). The main argument for pursuing this publication is that effective implementation in international development happens when networks at the top – international or high government level – match those at the bottom and institutions can align the different development objectives. We need to improve our understanding of how and why these mismatch situations happen and ways to assess them in order to inform the creation of more effective interventions at the international level.

The United Nations Framework Convention on Climate Change Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (now referred to as REDD+²) and similar REDD-like³ forest-carbon initiatives (see a list of forest-carbon projects at www.forestsclimatechange.org/redd-map/#) are interesting examples of this type of ‘multi-level’ governance. These initiatives attempt to mitigate climate change and reduce GHG emissions in the forest sector by implementing activities on the ground aimed at i) conserving tropical forests, ii) promoting the sustainable management of forests, and iii) enhancing forest carbon stocks. Such initiatives are implemented through a variety of institutional arrangements and processes, such as voluntary carbon markets, demonstration/pilot projects of development donors, capacity building for (future) REDD+ preparedness or community-based forest management initiatives that link with global processes. They may also include objectives beyond forest and carbon, such as income generation, securing land tenure and increased participation in forest management. REDD-like efforts can be interpreted as an example of global payments for ecosystem services (PES). Forest right holders are provided with incentives to reduce deforestation and forest degradation.

There are already many PES, or REDD-like, initiatives involving carbon stocks in forests around the world initiated by international organizations, national and sub-national governments, NGOs and businesses with different scales and scopes. This study will try to analyze some of those initiatives to understand how best to deliver both global (e.g., climate change, biodiversity) and local development goals (e.g., income generation, increased participation in resource management, fairness in access of resources). The analyses of existing REDD-like initiatives will help us to identify lessons for the implementation of current and future REDD+ efforts. Given the economic, social, ecological and political complexities of the issues involved, it is important to understand how the governance and results of the REDD+ efforts can both impact on and be affected by local circumstances. Concerns about governance have led to calls for REDD+ to be rendered more effective through improvements in the design

¹ We define international development intervention as any kind of intervention that has an international component, such as finance (aid or market-based funds), advocacy or capacity building.

² REDD+ is an international forest-carbon mechanism for payment for ecosystem services still under negotiation at the time of this report (11/2014).

³ REDD-like initiatives are forest-carbon efforts with a component of international development.

of initiatives and include social and environmental safeguards. A particular concern is the need for effective monitoring, reporting and verification (MRV), as well as the effective positive impacts on local communities and participation of local stakeholders in the design and implementation of REDD+ projects on the ground. In the context of REDD+, MRV is often seen as a strictly technical issue related largely to carbon accounting to quantify the reduction in greenhouse gas emissions. But in the context of forest governance, it also concerns the full and effective participation of interested parties in decisions regarding the sharing of benefits arising from PES, and responsibilities for forest management overall.

This publication looks at several issues that may influence implementation of these REDD-like initiatives, particularly the international-local linkages, such as capacity building, technical or scientific information, the role of NGOs, policies and procedures of related international organizations, the nature and capabilities of available national and local institutions, legal environment and governance, societal structure and willingness to adapt to changing international expectations as well as the flexibility in the policies of international institutions to adapt to local reality.

This research has an initial assumption that in order to have a more effective implementation international interventions have to pursue the objectives of specific international policies/ programs or agreements, but also adapt themselves to the development situation at the national and local level. This would be achieved by identifying and/or strengthening existing local institutions already working in related areas, building the capacities of these institutions and helping them align the national and local laws, actions and policies to the new goals appropriately. In the end, we will propose a set of recommendations that should be taken into consideration for an effective matching between international and national/ local institutions in order to improve the outcomes of such initiatives.

Local communities often are more victims than agents of deforestation. Generally, the main drivers of deforestation are the illegal loggers or large agricultural or forest development projects. Local communities can be key to maintain the forest through co-management schemes that benefit themselves; or otherwise they can be co-opted as labor in those large projects. This report analyzes some of these initiatives to highlight the key factors enabling the effective matching of local institutions with global institutions to achieve global environmental objectives (e.g., GHG reductions) in the context of local development priorities (e.g., income generation, increased participation in resource management, fairness in access of resources, secure land tenure) and inherent trade-offs at local level. We looked broadly at how the international institutions were influencing different aspects related to the interests of local stakeholders. For example, access and benefits sharing of the results of the initiatives. Success or failure of REDD+ will be determined not only by carbon emission reductions but also by equity for local communities that it would achieve. The question really is under what conditions REDD-like initiatives can improve forest governance, and reduce conflict situations between interests of different stakeholder groups. It is important to study whether REDD+ has initiated a genuine collaborative transformation in line with the emerging conviction that forests are ultimately attached to their closest custodians, the 'local communities'. Therefore, we propose to examine the issue of 'equity' in benefit sharing for REDD+ at the local level which shall include the types of benefits to be distributed, eligible beneficiaries, the structure of benefits, and mechanisms for distributing them, and by identifying the possible negative and positive effects of benefit-sharing mechanisms.

We also tried to look at how the REDD-like initiatives were generating local co-benefits beyond the forest and carbon, i.e. the spill-over or trickle-down effect of the project on other socio-economic aspects linked directly and indirectly to the forest carbon. The study looked at how the local communities perceive the benefits of REDD-like interventions. We intend to shed light on the association and possible consequences for the projects, maybe linked to the adherence, engagement and greater sensitivity to environmental issues. The study particularly examines the relationship between governance and the generation of co-benefits. What is the perception of the local community about the importance of elements of governance for achieving co-benefits? Can local communities realize the relationship between governance and project outcomes?

Finally, we also made an attempt to assess the participation of local groups in the decision-making process. Local and indigenous people (LIPs) are often involved in or affected by forest carbon projects. Their institutions are generally different from the typical 'western' or more mainstream institutions in the society. On the one hand, the links between the external (mainstream) institutions and LIPs can be difficult due to the different ways they work. On the other hand the links can influence the traditional institutions to incorporate voices that are not often heard in the decisions in many LIP institutions (such as women, ethnic minorities and children). The research will try to shed light on the way forest carbon changes LIP institutions and what are the best ways to couple these two kinds of institutions. How has REDD+ influenced the composition/structure of local governance frameworks? Has it had a positive impact (e.g. greater inclusion/participation, accountability, transparency, etc.) or has it disrupted societal norms, created conflict, etc.? What are the outcomes?

2. Literature Review

Global initiatives that aim to enhance forest carbon stocks in developing countries have been a contentious issue since its emergence under the auspices of the UNFCCC. REDD+ was initiated with the idea to devise a mechanism that can bring win-win situation as a cost-effective climate mitigation option by linking it to poverty reduction, biodiversity conservation and sustainable development (Angelsen and Brockhaus, 2009; den Besten et al., 2014). Then climate scientists propagated their estimates that 17–20% of global anthropogenic greenhouse gas emissions are generated by loss of forests (IPCC, 2007), while economists furthered that slowing rate of deforestation would provide a relatively low cost option for reducing global emissions (Stern, 2006; Eliasch, 2008).

The comparatively low costs and apparent win-win opportunities aligned the interests of national governments as well as NGOs and private investors who promptly began to develop conceptual approaches and markets for trading certified emission reductions derived from avoiding forest conversion and improved forest management practices (Linacre et al., 2011). Thus, the initial phases of REDD+ negotiations were highly concentrated on the establishment and initiation of mechanisms for carbon markets. Rather quickly however came the realization that market-based approaches to climate change mitigation in the forest sector also had a number of serious threats including the irreversible commodification of nature, recentralization of control over forest lands, land grabs, forest access restrictions, reversals of tenure reforms and further marginalization of local and indigenous communities (Phelps et al., 2010; Larson, 2011; Gupta, 2012). As a result, from 2009 onwards social and environmental safeguards issues (including benefit-sharing) became central to REDD+ negotiations due to pressure from human rights NGOs and associations of IPs.

In the political dialogues the notion of governance was highly emphasized by 'critical' and 'reformist' actors (den Besten et al., 2014). As a consequence some actors got engaged in strategizing social safeguards as a way to avoid risks to local populations (McDermott et al., 2012), while others focused on a way to enhance socio-economic benefits (Brown et al., 2008). As an outcome, there was uptake of voluntary certification standards such as the Climate, Community, and Biodiversity Alliance (CCBA) and Plan Vivo standards to ensure that forest carbon projects are in favor of communities and deliver appropriate co-benefits. Thus, undoubtedly over years the debate on REDD+ has broadened to include issues central to forest governance owing to the complex technical and political reality of the world (Pistorius, 2012; den Besten et al., 2014). Likewise the scope of actors involved in REDD+ too, has expanded from the national governments and diplomats to include academics, environmental non-governmental organizations, indigenous peoples' organizations and private sector actors.

From an implementation perspective, the UNFCCC forwarded a three-phased approach: (i) readiness or reddeness, (ii) policy reforms, and (iii) result-based action to be able to build the necessary technical and institutional capacities and systems (Angelsen and Brockhaus, 2009). Currently there are over 50 countries participating in the REDD+ scheme and they are mostly in the readiness phase. During the readiness phase they are building their national capacity, a pre-requisite for national level implementation. This includes devising national REDD+ strategy incorporating legal and institutional implementation framework, development of national forest reference emission levels and monitoring, reporting and

verification (MRV) system. The institutional arrangements within the policy process are supposed to be explicit on current strategies adopted by national government especially on the front of 'enabling interventions', some of which include good governance, stakeholder involvement, tenurial rights, financial regularization, institutional capacity, benefit sharing, national safeguard standards, building on existing forest governance initiatives, expanding existing coordination mechanisms etc. (Peskest et al., 2011; Salvini et al., 2014; Somorin et al., 2014). The goals of REDD+ are to be considered in terms of the '3E' criteria of effectiveness, efficiency, and equity outcome; with effectiveness being a measure of 'the amount of emissions reduced or removals increased by REDD+ actions' and efficiency being measure of 'the costs of these emissions reductions or removal increases' (Angelsen, 2009) and equity being inclusive of procedural, distributional and contextual justice (McDermott et al., 2013).

While national and international strategies for REDD+ programs and financing schemes are still emerging, there are over 338 site-specific REDD+ and other forest-carbon projects operational in 52 countries across the world until recently (<http://www.forestclimatechange.org/redd-map>). Lessons from these operational projects have generated important insights through practice on the ground that further confirmed that REDD+ had to urgently direct attention to social, environmental and governance issues. Factors that have been reported as impediments in effective implementation of REDD+ strategies include infancy of direct institutional action, weak institutional linkages, poor networks with forest-dependent stakeholders at the local level, etc. (Peskest et al., 2011; Brown et al., 2014; Somorin et al., 2014). Furthermore, lessons from community-based payment for ecosystem service schemes have confirmed that focused attention on strengthening local institutions, clarity in land tenure, community control in decision-making and flexible payment schemes with equitable benefit distribution and capacity building for community monitoring and awareness-raising play a vital role in raising the legitimacy of REDD+ (Dougill et al., 2012; Mustalahti et al., 2012; Sunderlin and Sills, 2012). In the following section we shall throw light on some of the important attributes of institutional arrangements that have been identified as pivotal for successful implementation of REDD+.

Nested governance with focus on strengthening local institutions

'Nested approach' was introduced in REDD+ as a multi-level approach linking across national and, subnational to local levels especially with respect to monitoring, reporting and verification (MRV) (Pedroni et al., 2009). To further this approach, Sunderlin and Sills (2012) mentioned 'hybrid of old and new forest conservation approaches' i.e. simultaneous financing of local projects and the development of a national-level institutional architecture as an alternative to an exclusively national or sub-national approach. National level architecture, incentives, and financial feasibility are indeed important components, but at the same time, appropriate local institutional architectures and effective nesting of these institutions within broader national forest governance regimes were identified as crucial and seeking equal attention (Hayes and Persha, 2010; Sunderlin and Sills, 2012). There is an extensive body of research that has investigated a variety of decentralized governance models and the relationship between community or collaborative management and forest conservation outcomes (see Ostrom, 2005; Chhatre and Agrawal, 2008). In line with these decentralized governance models, REDD+ and REDD-like efforts often stipulate rights of local resource users and their participation in collective decision-making regarding use, management and monitoring of forests. To overcome the legacy of disenfranchisement

in forest management and to include indigenous and traditional peoples and other forest communities in decision-making; REDD-like initiatives frequently include in the safeguards the provision for Free, Prior and Informed Consent (FPIC) where it is made compulsory that local people must be fully informed about, and give their consent to, planned project activities and interventions.

However, lessons from the field showcase a wide gap between rhetoric and reality. Strengthening of local institutions is an important component of equity, namely procedural equity as it ensures participation of local communities in decision-making and their inclusion in negotiation of competing views ultimately strengthening legitimacy of projects, as suggested by Brown and Corbera in 2003. Studies from Africa and Latin America show that in REDD-like projects, mechanisms to address financial and institutional challenges in sustaining local forest management systems has largely remained overlooked (Hayes and Persha, 2010; Cardona, 2012). Medium to long project timeframes are required to get through the initial stages of institution-building. However, although project implementing agencies seek patience from donor agencies to allow these local institutions to emerge but in many instances this is challenging in the contemporary climate of intensive monitoring and evaluation of development programs (where each activity has defined impacts, outcomes and results within short and often unrealistic timeframes and hence particular activities are not necessarily implemented when the institution is ready or activities cannot be repeated where repetition may actually be beneficial) and there remains lack of funding for institution-building (Cronkleton et al., 2011). There are many specific issues below that we would like to highlight and develop further for this study as we think they are fundamental in the implementation of REDD-like initiatives.

Clarity in land tenure

In most developing countries, tenure rights over forest lands and resources are highly contested and overlapping (RRI, 2012). About a third of the forests in Latin America, about two-thirds in Asia, and almost the entire forest area in Africa are formally under the exclusive ownership of national governments with varying degrees of control; meanwhile indigenous peoples and other forest communities often have customary tenure claims over the same lands (RRI, 2012). Thus it is governments that possess statutory formal ownership over large part of the world's forest in tropical countries often leading to overlapping claims by local communities arising conflicts among governments, private sector investors and local communities (Holland et al., 2013). On the one hand, state management of forests is claimed to be ineffective in terms of achieving the goals set by their own forest agencies in terms of sustainable forest management. On the other hand, even though some efforts involve locals in forest management, the capacity of local actors to support more effective management is limited by the dominance of government rights over forestland (Phelps et al., 2010). Over the years broad consensus has developed among donors, scholars, activists and governments that giving more tenurial rights to forest communities is a pre-requisite for devolved forest governance (White and Martin, 2002; Deininger, 2003), but the trend of tenure transfer has been slow and uneven. With the emergence of REDD+ there is new revival of impetus and at various institutional levels in REDD+ implementation attention is being focused to securing tenurial rights (Duchelle et al., 2014). For instance, Forest Carbon Partnership Facility (FCPF, which measures World Bank's REDD+ social safeguards), UN-REDD and CCBA all have explicit instruction for tenure rights. Another recent study from representative countries in Asia, Africa and Latin America revealed that with REDD+ there

gain in momentum for clarification and improvement of local tenure security as project proponents understand that the local stakeholders will play a key role in forest management in REDD+, and that tenurial clarification are key to fulfilling that role (Sunderlin et al., 2014).

Co-benefits and benefit sharing mechanism

REDD+ could present a variety of both monetary and non-monetary benefits. Direct monetary benefits may be derived from the sale of credits in voluntary market and possibly also from emerging national or international carbon markets, or from donors or governments as funds for REDD+ readiness. The indirect non-monetary benefits of REDD-like, often referred to as 'co-benefits' include ecosystem benefits (such as the protection of soil and water quality; biodiversity protection) and livelihoods benefits through project investments in community development.

Benefit sharing refers to the distribution of benefits from the implementation of REDD-like projects among multi-stakeholders with vertical benefit sharing, meaning distribution between national, sub-national and local level of stakeholders, while horizontal benefit sharing referring to distribution within communities, households, and other local stakeholders (Lindhjem et al., 2010). Likewise, 'benefit sharing mechanism' refers to the institutional means, governance structures, and instruments to distribute benefits (Luttrell et al., 2013). Benefit sharing mechanisms are a central aspect of REDD+ because in many REDD+ projects the proponent could restrict access to a local forest as means to protect and be the source of carbon additionality and revenue (Sunderlin et al., 2014). Local communities whose access gets restricted, thus in turn need to be compensated for the restriction which can be in the form of positive incentives such as an appropriate share of the monetary benefits received through carbon trading and/ or livelihood supports. Keeping in mind that local communities have an important role in REDD+ and REDD-like implementation, if they do not perceive the benefit sharing as equitable and fair, it would ultimately affect the legitimacy of the initiative, and will weaken the support from them (Luttrell et al., 2013). Equitable benefit sharing mechanisms mostly include notions of fairness and justice in distributional context. Both the clarification of tenure rights and good international-local governance are a must to enable equitable and transparent distribution of benefits (Karsenty and Ongolo, 2012).

Depending on the nature of the funding, the type of activity, and the type of multi-stakeholders involved, the benefit sharing mechanism is based on the following rationale: (i) 'legal rights' - 'benefits should go to actors with legal rights'; (ii) 'emission reductions' - 'benefits should go to those actors achieving emission reductions'; (iii) 'stewardship' - 'benefits should go to low-emitting forest stewards'; (iv) 'cost compensation' - 'those actors incurring costs should be compensated'; (v) 'facilitation' - 'benefits should go to effective facilitators of REDD+ implementation rationale'; and (vi) 'pro-poor' - 'benefits should go to the poorest' to be distributed based on their performance (Luttrell et al., 2013).

In order for REDD+ to be effectively operational at local levels it is very critical that lessons are learned from previous integrated conservation and development projects and concentrated efforts be made towards avoiding REDD+ being heavily loaded with a wide range of expectations on outcomes (Blom et al., 2010). However, ground realities again remain far from rationale as funds are getting appropriated by actors that are in the upstream part of the vertical links or are being captured by local elites (Matthews et al., 2014). Managing expectations on outcomes remains challenging and the differences remain high (Larrazábal et al., 2012; Luttrell et al., 2013).

Community participation

In order to gain local legitimacy, communities and local institutions should be involved in several phases of REDD+, such as have consent/design of the REDD+ intervention, land use planning and forest management. For example, one important point communities could be involved is in monitoring. Measurement of forest carbon at national or sub-national level involves a combination of remote sensing and plot-based on-ground carbon measurements. REDD+ monitoring results must be salient, credible, and legitimate (Danielsen et al., 2013). To enhance their legitimacy, participatory and community level monitoring approaches are being experimented as they envisage greater resonance at the local level (Palmer, 2011; Skutsch, 2011). This is because communities' involvement in monitoring brings in sense of ownership, build local capacity, enhance their participation in decision-making and improve governance (Danielsen et al., 2011; Constantino et al., 2012). Additionally, community based monitoring of forest carbon, biodiversity and livelihoods is considered as an important component of a fair and equitable REDD+ and increases its credibility (Danielsen et al., 2013). Analysis reveals that measurements on forest carbon that are taken by communities are in coherence with those recorded by professional foresters further enhancing the credibility of outcomes of community based monitoring (Larrazábal et al., 2012; Danielsen et al., 2013). Thus, there is greater opportunity to relate these results to policies and actions further making REDD+ monitoring salient. It is suggested to involve professionals only in technical aspects as mathematical calculations of carbon stock, etc., whereas field measurements be taken by local communities, e.g. recording tree girth data (Pratihast et al., 2012; Belcher et al., 2013). In spite of their importance, element of locally based monitoring of forest carbon, biodiversity, and livelihoods have not yet been formally embodied in the REDD+ safeguards. Project proponents too are not very explicit on inclusion of local communities in monitoring carbon that is one of the areas where they can very well be engaged (Larrazábal et al., 2012; Constantino et al., 2012; Pratihast et al., 2012; Danielsen et al., 2013).

3. Methodology

The methodology was a multiple case study method (Ragin and Becker, 1992). We analyzed REDD-like initiatives in different countries by collecting data and conducting semi-structured interviews to analyze the view of local population, officials, experts, organizations leading the REDD-like initiatives to understand the local context and processes of decision-making, as well as results of these initiatives. The case study method is appropriate to explore complex issues where research and data are abundant but the explanation about the different phenomena cannot be made with quantitative analysis (Ragin and Becker, 1992).

During one year (September 2013 to September 2014), the team initially made a general assessment of the main REDD+ like initiatives around the world focused on selected countries and looking at initial evidences of the results of those initiatives. Then, we examined the processes of establishing the different REDD-like initiatives with a certain history to learn how the institutions at higher (national and international) level were developed. Based on the results of the assessment above and the accessibility to the initiatives we chose a number of cases to conduct more detailed fieldwork to collect data and information about the cases, which were visited by at least one of the authors or partners during the period. Finally, we prepared this report with the results of the research and a set of lessons for an effective matching between international and national/local institutions in order to improve the outcomes of REDD-like initiatives and their development outcomes. The cases we examined are:

- i Public–Private Partnership REDD+ in Meru Betiri National Park. East Java (Jember), Indonesia. This is a project implemented by the International Tropical Timber Organization (ITTO).
- ii Afi and Mbe pilot REDD+, Cross-River State, Nigeria implemented by the United Nations-REDD Programme (UN-REDD).
- iii Bio-Carbon Sub-Project of Himachal Pradesh. It is also known as Mid-Himalayan Watershed Development Project (MHWDP) in India. MHWDP stakeholders are the Department of Forests, village level elected bodies known as gram panchayats (GPs), and the World Bank.
- iv Surui Carbon Project. Rondonia, Brazil. It is a project with a great area of land whose main characteristic is the indigenous leadership. It was the first REDD+ project in Brazil to sell carbon credits (purchaser: Brazilian cosmetics company Natura).
- v The Khasi Hills Community REDD Project, Meghalaya initiated by Community Forestry International, and led by local NGO.
- vi Capacity building REDD+ in Taungoo District, Bago Yoma, Myanmar. Project led by Myanmar's government with the participation of ITTO.

The cases will be detailed in section 4.

4. Cases

The initial optimism of forest-carbon efforts confronted several challenges at the local level, many of those related to local governance and its link to the international organizations or regimes in place. We analyzed different initiatives to understand the connections between local and global institutions and the mechanisms that facilitate those connections. Some initiatives indeed succeed, in several spheres, in having relatively effective results in terms of carbon and local development; success here meaning the transfer of resources for the implementation of different actions to contain deforestation on the ground and for the benefit of the communities. The lessons from those cases can provide useful advice for future REDD projects. Below we summarize the cases we studied.

(i) REDDiness in Meru Betiri National Park

Meru Betiri National Park (MBNP) is located in southern East Java province and is surrounded by the two districts of Jember and Banyuwangi.⁴ MBNP covers about 58,000 hectares of mangrove forest, swamp forest, and lowland rainforest ecosystems and includes a natural habitat of the rafflesia flower (*Rafflesia zollingeriana*) and a variety of medicinal plants. MBNP is also home to several protected animals, including 29 species of mammal and 180 species of bird, and is the last known habitat of the Javan tiger (*Panthera tigris sondaica*), a highly endangered species.

The importance of the MBNP region for conservation has been recognized since the Dutch colonial government declared it a protected forest in 1931. After Indonesia's independence, the area was nominated as a nature reserve in 1967, awarded wildlife sanctuary status in 1972, and recommended as a national park in 1982. In 1997, it was finally designated as a national park comprising about 58,000 hectares (Ministry of Forestry, 1997).

In terms of the function, MBNP forests are divided into five zones: core zone, intact forest zone, utilization zone, rehabilitation zone and buffer zone. Despite its clear legal status as a conservation area, deforestation in the buffer zone and degradation inside MBNP due to illegal activities have taken place throughout the area. In particular, the utilization, rehabilitation and buffer zones are under pressure from the illegal harvest of biological diversity, deforestation and encroachment. These illegal activities have caused significant reductions in ecosystem function.

To address the main causes of deforestation and forest degradation in the MBNP, a public-private partnership REDD+ has been established between ITTO and the Ministry of Forestry, with the financial support of Seven & i Holdings of Japan (ITTO, 2008). The Ministry of Forestry has recognized this REDD+ partnership as one of seven Demonstration Activities (DAs) in Indonesia. Since 2009, this has brought new ideas to MBNP that have contributed positively to conservation of forest carbon stocks and biodiversity and poverty eradication programs.

The main stakeholders in the MBNP REDD+ include local communities living inside the

⁴ Adapted from Puppim de Oliveira et al. 2013.

park and in the area surrounding it, MBNP, the Ministry of Forestry, universities, research institutes, a local NGO (i.e. LATIN), and the two private plantations inside the park area.

Two factors that make the project site unique are i) the existence of two private estates inside the park that have been in operation for a long time and ii) local communities that have lived around and inside the MBNP area since before it was declared a national park. The average income level of the communities is below the national average and below the poverty line. The income gap between plantation laborers and farmers has led to friction between the communities located around the forest and those inside the enclaves (Qadim, 2012).

Since 1960, the two plantation companies PT Sukamade Baru Banyuwangi and PT Bandalit Jember have held cultivation rights inside MBNP (Right of Cultivation or Hak Guna Usaha, HGU). In 1998, the Forestry Ministry extended these HGU for an additional 25 years. The companies have been growing different crops including coffee, cocoa, rubber and sengon trees in the park enclaves. Farmers involved in the rehabilitation programme are not allowed to plant these species and thus view the situation as unfair; it has become an issue in the negotiations between the farmers and the park authorities (Qadim, 2012).

The main objectives of the project are to reduce the pressure on the forest resources within and around the national park and prepare the local stakeholders for future REDD+ projects (readiness) with credit exchange. The main idea is to ally community needs and conservation goals. It looks more like a development project with several opportunities to generate income to local communities and drive labor away from destructive activities in the forest. The initiative has supported projects related to reforestation using labor from the surrounding communities and indoor mushroom growing as a cash crop.

The project was designed by ITTO in partnership with the national government of Indonesia. It is a pilot initiative to develop REDD activities in areas with national parks with the objective of expanding to other parks in Indonesia in the future, with domestic resources as well as international financial support. According to the main partners in the project, it seems that deforestation caused by the main target groups has been reduced, even though some illegal logging still takes place and there are negative impacts of the activities of the companies legally established within the park.

The communities seem satisfied with the initiative, as they are benefiting directly from the projects, despite not initially being involved in decisions around the initiative's design. By a Memorandum of Understanding (MOU) between the communities and the national government, the communities implement some of the income-generating projects by acting as labor or small producers, such as in the case of indoor mushroom production. They also take part in regular meetings that ITTO and partners organize to discuss and get feedback from the project. The partners did not make any payments directly to individuals and communities (except projects) in order to avoid similar expectations in the future.

(ii) Afi and Mbe pilot REDD+, Cross River State, Nigeria, UN REDD

The Afi/Mbe consists of contiguous communities around the Afi/Mbe Mountains in Boki Local Government Area (LGA), in the Cross River State in south-east Nigeria. Cross River has the largest forested area among the states in Nigeria with a Total High Forest (THF) of 950,000 hectares (DFID, 2001). Apart from Okwango Division of Cross River National Park, most of the endangered Cross River Gorillas (*Gorilla gorilla diehli*) are housed in Afi/Mbe Mountains making this area a conservation priority for governments and NGOs. The listing of Afi Mountains as an Important Bird Area (IBA) further reinforces the importance of conserving this area.

The Afi complex remains the largest forest block apart from Cross River National Park in the State. It includes the Afi River Forest Reserve and the Afi Mountain Wildlife Sanctuary (AMWS). The Afi Mountain Wildlife Sanctuary was established in 2000 covering an area of 100 km², dividing the Afi Forest Reserve from the Mbe Mountains. The Afi complex has 16 villages and farms. The Mbe complex on the other hand has Mbe forests that cover 100 km² and comprises nine surrounding communities (Morgan et al., 2011); the Conservation Association of Mbe Mountains (CAMM) manages the protected forest.

However, the forests in Cross River State, and on Afi/Mbe in particular, are under increasing threats from pressure on resources. Forested areas in Afi declined from 402.87 km² in 1991 to 301.51 km² in 2001, i.e. losing 25 per cent of its forest in 10 years (GCF, 2010). The need to clear forest for agricultural land expansion is the chief reason for forest degradation. Other factors include unsustainable agricultural practices, commercial logging, cattle grazing and poor enforcement of forest policies (GCF, 2010). Boki LGA population grew from 156,617 in 1991 to 210,843 in 2006 (Ottong et al., 2010). Ninety-four per cent of local people were found to use forest resources frequently (Fonta et al., 2011). Furthermore, forest supports the livelihoods of more than 85 per cent of rural dwellers as forest products form key resources for their livelihoods (ERA/FoEN, 2011).

Therefore, the region was put on priority for the REDD+ pilot (readiness) that was put forward by the Nigerian government and the Cross River State. Community forestry is one of the main strategies used by the state to control deforestation and sustainable management of forest resources (Bisong, 2003; Amika, 2003). The official initiatives of community forestry in Cross River date back to 1999 with the establishment of the Forestry Commission aimed at promoting rural development through sustainable forest management while applying a participatory approach, monitoring, and evaluation of forestry activities (Ijeoma and Aiyeloja, 2010). Later on, the Cross River State established a new forestry law that gives mandate to the state's forestry commission to award "carbon" concession to the communities, unlike the previous law which only granted timber concession. However, even though the new law still recognizes community by-laws implemented by the Forest Management Committee, timber concession activities were banned in 2010 for an indefinite period of time (McCarthy et al., 2011) due to the commencement of REDD+ readiness. Nevertheless, despite the ban on forest extraction activities, local people still hunt illegally and encroach on the forest to carry out farming activities, as indicated by the maps below showing illegal activities in Afi and Mbe. There are also possible impacts from deforestation. The Afi complex recently witnessed a landslide, which resulted in massive erosion and flooding, affecting the road in Afi as well as many farmers and even a tourist destination (Mandrillus Project).

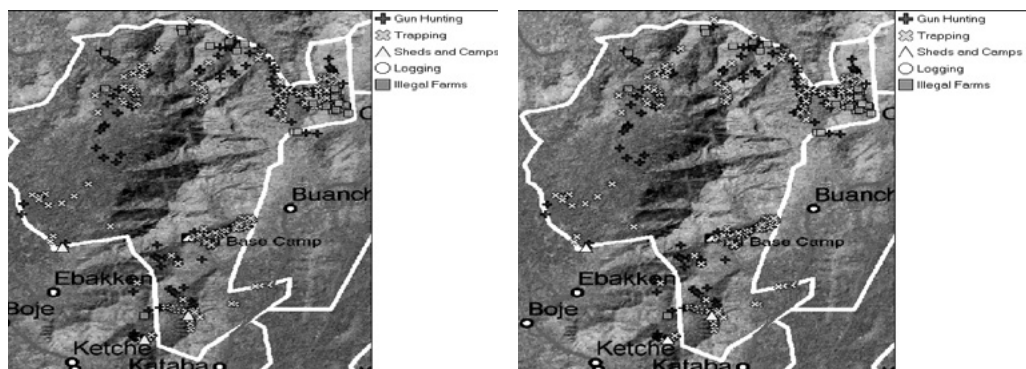


Figure 1: Illegal activities in Afi/Mbe using cyber-tracking, Wildlife Conservation Society (WCS).

The readiness project targets capacity-building and awareness-raising in the communities of Afi and Mbe, but the governance of the forest is different in these two areas. On the Afi side, the AMWS (a government organization) is the leading organization in the management of the forest. Government employees are responsible for monitoring and enforcement, as well as raising awareness in the surrounding communities about the importance of conservation. In the Mbe Mountains, the monitoring and enforcement is done by members of the villages in partnership with the Wildlife Conservation Society (WCS), an NGO. WCS has a local base and pays costs for the community members to patrol the forest, as well as for their training. The WCS and local leaders developed a set of rules and a framework for enforcing and punishing illegal activities in the forest practiced by surrounding villagers. This has kept the communities much more active in forest governance, though youth complain about restrictions on the use of the forest.

However, the socioeconomic situation in the region tends to put further pressure on the forest. With their growing population, the communities struggle to ensure food security. There is a general decline in food security in all the communities sampled using the pre-REDD+ period (2010) (Akanni, 2013). Community members also feel constrained in improving their livelihoods because of the lack of economic alternatives beyond those that put pressure on the forest. Before 2010, they were able to clear the forest, expand their farms to grow food for their subsistence, and sell any extra for cash. But with REDD+, they were not allowed to clear forest anymore due to the ban on forest extraction activities. Young people complain about the lack of opportunities beyond farming and forest exploitation, as possible non-destructive alternatives, such as tourism, are constrained by a lack of demand.

(iii) Bio-Carbon Subproject of Himachal Pradesh

The Himachal Pradesh Reforestation Project (HPRP) is a subproject of the Mid-Himalayan Watershed Development Project (MHWDP), which has been developed with the support of the World Bank in the State of Himachal Pradesh in north-western India. MHWDP main stakeholders include the Department of Forests, villagers, village-level elected bodies or Gram Panchayats (GPs), the World Bank, and European Governments, particularly Spain.

The MHWDP started mainly as a watershed management project in the Siwalik Hills with an altitude below 800 meters above sea level. The project covers a large and important area for India. It involves the catchment basins for the major rivers Beas, Ravi and Sutlej. They merge with the Indus, which provides water to more than 200 million people in the plains. The project is a mix of watershed protection and recovery, with management of riparian vegetation and agricultural development with improvements in irrigation systems and soil management. Rural development is key for the development of the state as 90 per cent of its 6.8 million inhabitants live in rural areas. Since it began in the 1990s, the project has built more than 200 km of irrigation channels, 6,000 water harvesting tanks, 1,000 ponds and 250 dams. The MHWDP affects more than 220 thousand hectares involving more than 700 GPs in 11 watershed divisions, and more than 10 districts of the Himachal Pradesh (HP). It is managed as a semi-independent administrative unit of the Department of Forests in the Government of HP. Besides employees of the Department of Forests, who head the unit, there are employees from other departments seconded to the unit. Since the beginning, the project has tried to be community-driven in its decisions and part of the implementation of its activities. In the first phases of the project, village councils were established to manage the project locally.

In the mid-2000s, the third phase of the project moved to higher altitudes, between 800 and 1600 meters. The project kept the same broad approach on watershed management but made a few changes and additions. Around the same time, the watershed project included a bio-carbon component based on its reforestation project (HPRP), formatted as a Clean Development Mechanism project (CDM), which was registered in the United Nations Framework Convention on Climate Change (UNFCCC) in June 2011. The way the project is managed changed as well. The GPs started to be more actively involved in the definition of activities within the HPWDP, becoming the main point of connection between the project and the communities, instead of the village development committees as before. The main reason for this is that the committees were created for the project only, and they generally died when the project ended activities in certain villages.

Since its beginnings, the way the HPWDP involves communities has been through a “package” of projects. According to interviews, communities are not directly interested in carbon management or even watershed management, even though they understand its importance. Their main priorities are to improve their agricultural production, such as increasing milk production, irrigation and the quality of cows. Thus, instead of keeping the watershed management initiative and now the bio-carbon initiative as individual projects, the unit includes them in a wider package of projects when negotiating with a community, making those initiatives viable. The GPs are elected and have other functions, beside project management. In the decision-making process, the unit makes a rapid appraisal and explains the project to motivate villages to become engaged. The GPs divide the responsibilities with

the unit, such as helping in the decision-making and getting involved in creating paths and water tanks, and the unit does more complex activities, such as dams or forest plans.

The bio-carbon component is carried out in 177 GPs through reforestation of each village's community forests, which are a common area of the village, and with individual plots for agriculture. The community forest may also be near or next to a forest managed by the Department of Forests. Many communities use the community plots for grazing their cattle or collecting firewood or non-timber products such as medicinal plants, or even timber when authorized by the Department of Forests.

The World Bank suggested the CDM in the reforestation project. There was initial skepticism in the unit, but after taking the idea to the villages and GPs, which accepted the mechanism as they generally do not use much of the community forest, the CDM was seen as a potential source of extra income that would not require much investment or work. The area of the bio-carbon component was around 3,213 hectares in 2012-2013, with a tree survival rate of approximately 72 per cent on average. The independent verification of the CDM project for assessing the amount of credits was carried out in the second semester of 2013, and credits (CER) are expected in 2014 — approximately IRP 2,500 (~USD 43) per hectare per year — money that will come from the Government of Spain in exchange for the credits. The division will be 10 per cent for the Department of Forests for administrative costs, 20 per cent for the GP, and the rest for the user groups in the village.

The areas under the project have had very positive impacts, even aside from the watershed protection. The project has removed invasive species, like Lantana (*Lantana camara*), and planted local species. The project plots are also containing land degradation and restoring degraded land. Several local species, such as the wild boar, have returned to the community forests.

The Department of Forests also had to adapt to the project. Indeed, because of the particularities of the CDM project, the unit used consultants to learn the way the plots are planned and planted, as well as to assess the carbon volume sequestered. The reforestation component was known and is carried out as usual in other reforestation projects (the unit makes a tender for hiring a firm to plant and manage the forest). The CDM generated a lot of extra bureaucracy and layers of control, as well as technicalities in the reports. The reforestation was carried out by the unit, with limited involvement by the community. In one of the communities visited, the villagers were expecting to receive cash. However, they had different impressions of the main benefits of the project. They said they thought the initial benefit was to contain wild animals, which sometimes are hidden in the forest. The bio-carbon component was difficult for villagers to understand.

(iv) Khasi Hills Community REDD Project, Meghalaya

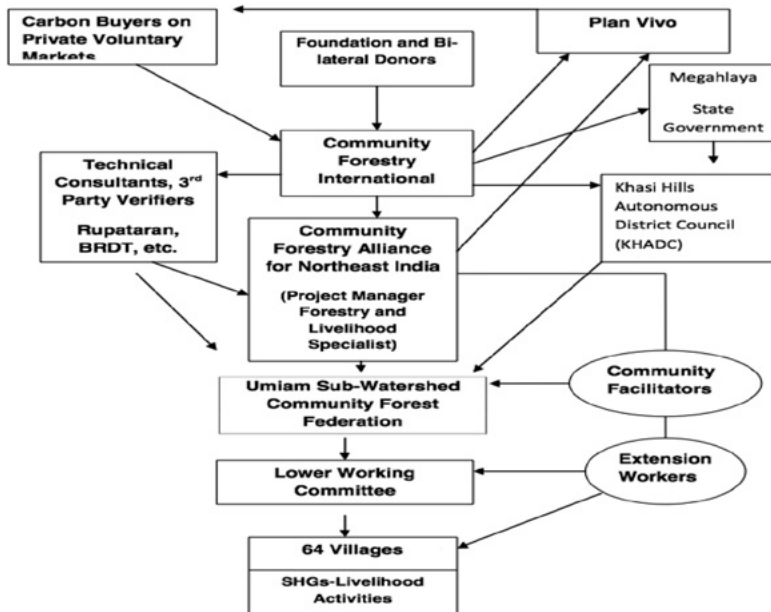
Meghalaya is a small mountainous region in north-eastern India, with 42.34 per cent of the total area of the state under forest cover (Land Use Statistics, Ministry of Agriculture, Government of India). The state has a population of 2.651 million (Census of India, 2011); more than 85 per cent of the population especially belonging to indigenous tribes, such as Khasi, Jaintia and Garo, inhabit three distinct geographical regions of the state known as Khasi, Jaintia and Garo hills respectively. Forest management in Meghalaya is exceptional as the state enjoys special provisions under the Sixth Schedule of the Indian Constitution where control over almost all forests in the region is with the indigenous people and only about 5 per cent of the forest area is under government control. This is unlike the rest of India where the central forest department owned most of the forest until the Forest Rights Act 2006, and manages it through state forest departments. The power and authority of each of the districts in Meghalaya is granted to Autonomous District Councils (ADC) who are given authority over the traditional institutions even in matters related to the control of forests by private owners and community forest lands.

The Khasi Hills Community REDD Project, also known as the Umiang Watershed Conservation Project, was initiated in 2005 in the East Khasi Hills district of Meghalaya through the leading efforts of Community Forestry International (CFI, an international NGO) and is posited as India's first REDD project covering an area of 8,379 hectares including 3,825 hectares of dense forests and 4,554 hectares of degraded and open forests. The project involved 10 indigenous governments comprising 62 communities. A local NGO named Ka Synjuk ki Hima Arliang Wah Umiang Mawphlang Welfare Society (an alliance of 10 indigenous governments (Hima) and 62 villages in the project) was formalized to operate the project. The project was also certified under Plan Vivo⁵ standards. The project proponents acquired required clearance from the Khasi Hills ADC.

The project site was undergoing severe forest degradation over the previous few decades and communities were looking for options to restore the degenerated forest. The local drivers of deforestation in the region include stone quarrying, uncontrolled grazing, forest clearance for agriculture, fuelwood collection, and forest fires. The majority of the project communities are below the poverty line. Most of the people in the village are involved in agriculture, stone quarrying, mining or they run small local enterprises; many have migrated to cities, as better job opportunities are available there in the service sector. The project activities followed a multi-faceted approach, as it encouraged alternative livelihood generation options, such as animal husbandry and the cultivation of new cash crops such as plums, mustard and turmeric. These were facilitated in collaboration with the Indian Council of Agricultural Research (ICAR), along with conservation and construction of 21 km of community-built fire lines, as well as access restrictions to about 500 hectares of forests to allow natural regeneration. Notably, the local institution involved in the project also manages about 77 hectares of land, known for centuries as "sacred groves".

⁵ *Plan Vivo is a standard for community-based agroforestry projects and focuses on promoting sustainable livelihoods, enhancing ecosystems and protecting biodiversity in rural communities by connecting rural communities to the voluntary carbon market.*

The governance structure of the project is presented in the below flow chart (Source: Project Idea Note submitted to Plan Vivo, 2011):



Our interview results suggest that proponents earnestly engaged local stakeholders in designing and implementing the project, with the priority to strengthen the capacity of indigenous institutions enhancing its legitimacy. The land tenure system in Meghalaya, where forests are owned by communities, clans and private individuals, has been in practice since time immemorial and is legally recognized by the Government and other agencies. Clarity in land tenure and the absence of any conflict or instability in the project area related to land tenure augmented its effective implementation. There were also many outreach and consultative activities at the project sites over the previous few years. The participation of communities in forest-related activities was interactive. The traditional head of Umtyrnuit (one of the project villages) noted: "While making decisions I discuss with people, and take their opinions on board and therefore people respect my decision." Also, during informal participation in one of the local village meetings, we observed that the community was being informed and their pre-consent obtained for REDD+ related activities in Umtyrnuit.

We also found that local communities associated high cultural and religious beliefs with conservation, such as the example of a respondent in Umtyrnuit who was quoted as saying "we protect sacred groves as our deity named labasa resides in the forest and he ensures well-being of villagers". The project includes a component to preserve sacred groves and utilize them to serve as gene pools for the purpose of seed collection for raising forest nurseries for afforestation programs. There were 21 tree seedling nurseries established by the project that were run by women. Thus, aside from cultural well-being, the project also ensures that only indigenous species are used for afforestation purposes. Local communities, with the support of local NGOs, were involved in generating the data required to develop

the carbon baseline to establish MRV, with technical support from CFI and other state and central universities.

The formation of a local NGO and the use of traditional institutions established a sense of responsibility and accountability to the project. Villagers were motivated and were active in seeking available opportunities to conserve the forest. The areas under the project have had very positive impacts in ecological restoration; aside from the watershed protection it has been able to sequester around 20,000 tons of CO₂ each year and, at the time of the field visit in May 2013, the local NGOs were in the process of seeking buyers for the generated carbon credits. The major share of carbon revenues from the sale of carbon credits were to be delivered to the local communities (project participants) and some portion to the local NGO who managed the project to support project implementation activities and to develop alternative income generating activities. Aside from this, female-administered self-help groups were formed to handle the finance.

The program approach was livelihood enhancement and was conceived as to be able to link to national government programs, such as the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) or the National Bank for Agriculture and Rural Development (NABARD). However, during field visits we perceived some major challenges remaining at the project site regarding sustainable financing as in the absence of sustained long-term financing the project proponents were dissatisfied. Funds from the MacArthur Foundation and the Ford Foundation (2005–2012) provided start-up support to participating NGOs, communities, universities and technical support partners to collaboratively work and design the programme; however there was no ensured long-term financial support system.

The project faced initial challenges in terms of developing multi-level linkages; while interviewing most of the key actors at the central government level, we found them unaware of the project activities. Thus, overall, efforts to institutionalize activities at this REDD+ project were found to be piecemeal and isolated, with little if any articulation of the lessons learned from this project site to national strategies and action. The criticism for the project is on additionality criterion, as local communities were undertaking carbon mitigation activities previously though it wasn't recognized by the name of Payment of Ecosystem Service (PES) (Bhullar, 2013).

(v) The Suruí Forest Carbon Project in the Brazilian Amazon⁶

The Suruí Forest Carbon Project (SFCP) aims to avoid deforestation and its emissions of Greenhouse Gases (GHG) in an area under strong pressure of deforestation in the Brazilian Amazon. The SFCP emerges as a pioneering initiative led by the Suruí people in the search for financial mechanisms to ensure the implementation of a strategy of forest conservation, improve the quality of life of their populations and restore their traditional culture. The SFCP is the first REDD+ project to be developed on indigenous lands in Brazil and it is the first in the world to receive certification in the voluntary carbon market (Verified Carbon Standards, VCS; and Climate, Community and Biodiversity Standards, CCBS). Furthermore, it is the first in the world to sell carbon credits under the voluntary carbon market (Escaquete, 2013; Muller, 2013).

Brazil has about 516 Indigenous Lands (ILs) occupying 12.5 per cent of the national territory, with a significant concentration in the Legal Amazon region (IBGE, 2012). The territory of the Suruí people (IL Sete de Setembro) is situated in the southern part of the Amazon region in the State of Rondonia, within the arc of deforestation, covering an area of 2,481 km². The Suruí people were first contacted (officially) in 1969. The following years were marked by foreign invasions and the decline of the indigenous population due to diseases and murders (Narayamoga Suruí et al., 2008). Half of the indigenous population of 5,000 individuals had died from diseases brought in by colonizers five years after the first contact (Vitel, 2013; Narayamoga Suruí et al., 2008). A decade later, they were only 250 individuals (Chicoepab Suruí, 2013) and currently they are about 1,000 people (IBGE, 2012). Their language is called Tupi-Mondé and their social organization is based on clans⁷. Their clan belonging is "the basis of the governance system of political organization and system of kinship and marriage of indigenous people" (IDESAM, 2011, p. 19).

In IL Sete de Setembro, like other IL in Brazil, the pressure for exploitation of resources is high (Santilli, 2010) and the economic value of the wood and other biodiversity resources often contributes to the creation of social conflicts and internal pressure, which has forced the indigenous to obtain income through the illegal sale of timber or forest conversion to pasture and coffee plantations (Vitel et al., 2013; IDESAM, 2011).

The Suruí Forest Carbon Project (a REDD+ project) was implemented in 2009 after two years of planning between clans and several environmental NGOs. As an endogenous initiative (initiated and conducted by the community) the project integrates the 50 Years Plan of Paiter Suruí (being an ethno-environmental management plan built and managed by the indigenous themselves). The 50 Years Plan of the Suruí People includes a financial strategy alternative and means for conservation of their forests and preservation of their traditional way of life and traditions (Metareilá, 2010). The project and the interlinked 50 Years Plan are efforts to prevent deforestation of 13,575 hectares of forest by the year 2038 (and avoiding the emission of 7,258,352 tons of CO₂ equivalent) (IDESAM, 2011). It has also shown to be a tool for protection of their territory (Olander et al., 2010).

⁶ This case was drawn from the writings of Guineverre Alvarez and Celio Andrade from the Federal University of Bahia, Brazil and Maria Elfving, an independent researcher with affiliation to Linnaeus University, Sweden.

⁷ "The clan is made up of a group of people of the same lineage of kinship ... [in the case of Paiter Suruí] a lineage that is established by the parent, i.e. it is a patrilineal kinship organization" (Suruí, 2013).



Figure 2a: Map of Myanmar showing Taungoo District in the central part

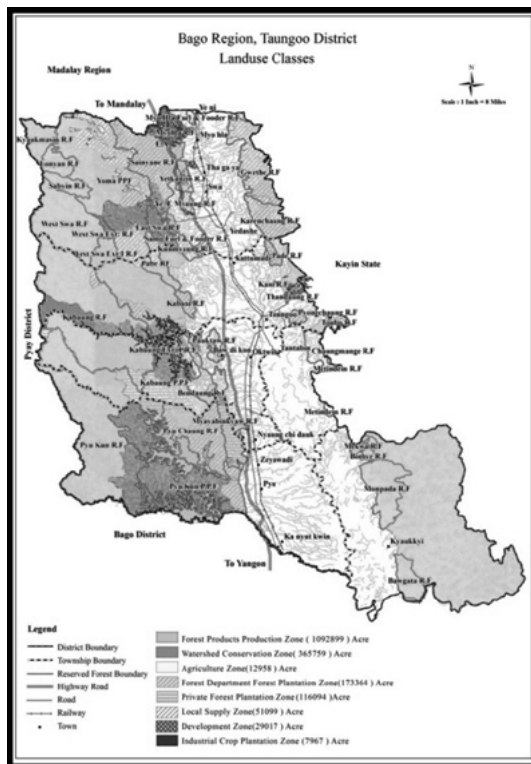


Figure 2b: Baseline map of Taungoo District, Bago Yoma, Myanmar

The project has four main themes: i) forest and environment protection (monitoring and capacity-building of Suruí to defend their territory); ii) food security and sustainable production (economic use of natural resources sustainably); iii) institutional strengthening and development (autonomy in the management of indigenous land through institutional strengthening of their organizations); and iv) implementation of the financial mechanism – the Suruí Fund (IDESAM, 2011) which integrates different types of conservation finance, including carbon REDD+ incentives under the voluntary carbon market mechanism (Vitel, 2013). This set of activities has the ultimate goal of ensuring the end of deforestation in the IL, facing its two main causes: the lack of economic alternatives to ensure the well-being of Paiter Suruí and the entry of foreign actors to conduct illegal activities. The creation of the project motivated more active participation of the local government in discussions on REDD+, catalyzing discussion and construction of related policies currently in progress (Pavan and Cenamo, 2012).

(vi) Capacity-building REDD+ in Taungoo District, Bago Yoma, Myanmar

In Myanmar, more than 70 per cent of the country's total population is rural and dependent on forest resources for their livelihoods, both directly and indirectly. However, the country has been cited as one of 10 tropical countries with the highest annual deforestation rate, assessed at 1.3 per cent in the last decade of the 20th century (FAO, 2010). Therefore, REDD+ has been recognized as an important opportunity to mitigate climate change and for strengthening sustainable forest management (SFM) and rural community development (Oo, 2013).

Myanmar has established forest management frameworks through the Burma Forest Act 1902 and later with the Forest Law 1992, and the Community Forestry Instructions (CFI) 1995. Since its creation in 1923, the Myanmar Forest Department has practiced the selection system to manage the country's natural forests (Oo, 2013). In order to promote more integrated approaches against deforestation in the country, the government established in 2012 the Ministry of Environmental Conservation and Forestry (MOECA) by expanding the mandates of the Ministry of Forestry. After this new Ministry became functional, several key activities were initiated across the country with an environmental focus. Teak harvesting has turned very conservative and communities are being encouraged to undertake planting and forest management (Kant et al., 2014).

In December 2012 Myanmar launched the project titled “Capacity-building for developing REDD+ activities in the context of SFM” that revolves around a subnational initiative with the support of the ITTO. The project covers approximately 1 million hectares located in the Taungoo District in Bago Yoma, a region famous for its natural and planted teak (*Tectona grandis*) forests in mixed deciduous forests (Kant et al., 2014).

The project is part of REDD+ readiness in the country, centered on capacity-building of all stakeholders within and outside the government, which was earlier identified as a national priority by the UN-REDD Programme and ITTO. Some of the most critical parts of the capacity-building relates to the preparation of REDD+ national strategies and road maps and the establishment of an MRV system in the Taungoo District. In addition, this project seeks to enhance the livelihood of communities in the demonstration sites.

Significant progress has been made in the recognition of communities’ important roles of forest management activities based on their use rights, although communities have not been fully empowered towards effective forest management and use (Oo, 2013; Win, 2013). In the project sites of the Taungoo District, mutual trust between communities and the Myanmar Forest Department has been significantly improved by the ITTO project team. In the Yedash Township covering about 200,000 hectares of forests, 38 villages depending primarily on agriculture have a long-term relationship with forests and bamboo for fuelwood collection and their livelihoods. For active participation of villages in forest management and REDD+ activities in the Yedash Township, a forest extension center was established by the project to facilitate agroforestry plantation techniques. However, insufficient assistance for livelihood improvement and a low level of social and human capacity of communities for forest management is still a major challenge. As an entry point, establishing village-level forest management groups is essential to prepare and implement a forest management and use plan to ensure the better management of forest resources. Continued investments in the capacity of community cooperation organization from REDD+ readiness activities are crucial in the project sites towards improved village-level forest governance and increased roles of women in decision-making processes (Oo, 2013; Win, 2013).

Establishing a robust MRV system for REDD+ activities in the project sites is also a key challenge towards results-based payments for REDD+ activities. Significant investment for MRV systems is needed due to deficient technical capacities of assessing reducing emissions from deforestation and forest degradation. High transaction costs through the engagement of international consultants in assessing emission reduction in the project sites negatively impact the potential of REDD+ in the country (Kant et al., 2014).

In the review of the enabling policies, institutional arrangements and governance for the effective design of REDD+ activities strengthening sound land use management systems is one of the principal challenges (Oo, 2013). Underlying causes of deforestation and forest degradation are principally a lack of sound land use policy and land tenure systems together with conflicting policies, and weak law enforcement (Oo, 2013). By recognizing the need for more holistic policies, the government has switched from a top-down planning approach to broadly a bottom-up planning approach. At the national level, an Inter-ministerial Land Scrutiny Group, chaired by MOECA, has been formed and is active, with a Presidential mandate to devise national-level regulations for land use planning. With the engagement of civil society and the private sector representatives, Land Use Advisory Committees are being established at subnational levels. In resolving land use conflict issues in local contexts,

there is increasing attention paid to the importance of engaging civil society groups as the Land Core Group and the Food Security Working Group (Oo, 2013).

REDD+ institutional arrangements have been weak and ineffective in the country although considerable efforts have been made for the awareness of REDD+ in contributing to SFM. For instance, a REDD+ Task Force at the national level was established in 2010 with the engagement of staff mostly from the Forest Department. It would be important to enhance the future working arrangements of the REDD+ Task Force, involving other ministries such as the Ministry of Agriculture and Irrigation for effective inter-agency cooperation towards the effective design and implementation of REDD+ readiness (Oo, 2013). In addition, the creation of a division for community forestry programs at MOECAAF will be another important step for strengthening institutional arrangements (Oo, 2013; Win, 2013). In order to ensure from planning to practice, community forest development for REDD+ needs more strengthened community forest management institutions and secured community forest management rights through more supporting regulations from the CFI 1995 at the national level. More innovative and inclusive REDD+ related policies and approaches are essential to build sustainable livelihoods of communities and their contributions to SFM.

5. Analysis of the Cases and Lessons

The cases presented various examples of institution-building for forest-carbon initiatives with an international component. Institutions and organizations helped to a certain degree to cement the link between global and local spheres. In this section we analyze the lessons related to coupling the global to local institutions and the various responses in terms of organizational and institutional mechanisms that emerged from the cases and the various impacts on local development.

The need to strengthen the capacity of local organizations to manage the global-local dynamic, as well as to improve other local institutions

The administrative and institutional complexities of REDD+ and other forest-carbon initiatives generally require strong support from organizations with local presence, such as national governments and local formal organizations like local governments and NGOs. Those organizations need to have good knowledge of the local situation and contacts in the local communities within or around the forest, and the capacity to develop partnerships with locally established organizations. The development of local institutional arrangements to plan, implement and administer forest-carbon initiatives demands significant effort from funders or organizations that take the lead to develop the project. In the cases we studied, the communities and local governments had little capacity to manage the REDD-like initiative alone. The alternatives ranged from relying on existing government organizations at the site, such as park management or forest officers, or non-governmental organizations, such as local NGOs or community organizations, to administer the project locally, or a combination of those.

For example, the MRV component of forest-carbon initiatives generally involves external agencies and consultants such as in the case in Myanmar and can create a dependency dynamic. The technical aspects of designing, implementing, validating, monitoring and reporting a forest-carbon project are usually beyond local capacities. While training and capacity building can help to perform certain tasks, as we saw in the case studies, full control of the technical requirements in a typical local organization remains realistically improbable. Thus reliance on outside experts will continue, except where drastic simplifications and streamlining are possible.

Many of the efforts to develop local institutional capacity in forest-carbon initiatives focus almost exclusively on the forest management aspects of the initiatives, with limited attention paid towards building institutions for addressing issues such as land tenure or improving gender equity consistently. Genuine participatory processes in forest management can help to unveil discussions over important local issues with which local institutions are not able to deal. However, many participatory processes are superficial, reduced to a few workshops, and fail to engage communities in more in-depth discussions that could change local institutions to tackle specific local issues, such as gender inequity. In the case of the Himachal Pradesh initiative in India, the project tried to engage women in the user groups in many villages. Though they do not really understand the forest-carbon component, they were responsible for defining how the financial benefits from the sale of the CDM credits would be used. This can be a first step to use the forest-carbon initiative to initiate change in local institutions towards improving gender equity.

Different degrees of involvement of communities, but difficult to have them lead

Forest communities are often key stakeholders for the effective implementation of forest-carbon initiatives as they can significantly influence the results of the initiative. In many cases the main drivers of deforestation are the illegal loggers or large agricultural or forest development projects, and the local communities, if strengthened institutionally, can support co-management; or otherwise they can be co-opted as labor in those large projects. In cases where communities or part of them feel alienated or disregarded, they may not cooperate with the long term objectives of the initiative. Trust is vital: in many cases projects must consider that they are operating in situations where community rights over forests have been disregarded by state-centric forest management policies for decades and thus it takes time to build the requisite trust upon which an effective partnership for sustainable outcomes (both for conservation and development) can be formed.

The level of community involvement varied in the cases we studied. They contributed to different degrees in the initiatives, but typically did not lead or have a major leadership role in the process. In the case of Nigeria, there was little direct involvement of the community in the leadership of the initiatives. Communities were basically participating in the outreach activities designed by the government with the objective of training and awareness-raising. Few locals knew details of the forest-carbon initiative (in this case REDDiness). In the two cases in India, communities had a more active role contributing to the activities of the projects with land and discussions with the proponents of the project. In the Meru Betiri (Indonesia), the communities were more engaged in the implementation of the projects directly through allocation of labor for the various activities in individual private property as well as in reforestation in the buffer zone of the park.

REDD+/REDD-like initiatives can be an opportunity to strengthen community leadership and engagement with local institutions. The case in Surui in Brazil showed an important component of community leadership. This was catalyzed through a long period of engagement of different groups, the cohesion already existing among the indigenous clans, the existing links of the community to the forest and the involvement of the local government in mitigating deforestation, as well as issues related to indigenous land and traditions.

Establishing an entry point

Entry points are critical in the development of any forest carbon initiative. While on the one hand central government agencies and large private sector corporations and other powerful actors from economic centers (capital cities) are often the ones that determine outcomes, project developers must carefully balance their approach by forming genuine and healthy collaborative partnerships at the local level. In historical contexts of exploitation by centers, the norm in many tropical forested countries generally points that building trust is essential. An important aspect for the success of any REDD+ initiative at the local level is therefore to find a suitable local partner which should have the organizational capacity and sufficient legitimacy in terms of being representative of local populations to implement a forest-carbon initiative with high interest of local communities. Communities and local governments are not likely to be interested in forest conservation for mitigating climate change, if this is not aligned to their other development or political interests. Without this alignment, locals may oppose or not contribute to the initiative, compromising the final results of the intervention.

One option is to engage the forest-carbon initiative with other development projects to make it an entry point. For example, the initiative in Meru Betiri National Park in Indonesia involved a variety of development interventions related to forest conservation, ranging from reforestation of buffer areas to projects for income generation in individual properties e.g. mushroom production. Another option is to include the forest-carbon initiative in an ongoing program of conservation or management, such as the case of CDM in HP in India, which had an established watershed management program.

Supporting a local organization as an entry point for a new initiative, such as a forest-carbon project, is common to environmental projects. Entry through an organization working with more pressing development needs, such as land tenure in the case of Surui, can strengthen the local capacity to improve development conditions. Finally, training and using local labor and local community groups for specific tasks can support income generation. In Nigeria, the Wildlife Conservation Society (WCS) in Mbe worked with the local leaders to train local youngsters as rangers in their own forest contributing to income generation. This aligned the more directly external interest (preservation of the forest and gorillas) to local needs (jobs and incomes). On the other hand, if the entry point organization is interested in different local objectives, they may not support the forest-carbon initiative once the external support ends, going back to focus on their initial objectives.

Generating more local interest beyond carbon by linking co-benefits of good forest management

The connection between global and local institutions needs to have a 'bottom-up' component in the proposal of the forest-carbon initiatives. The general impression is that the forest-carbon debate is very distant from the local realities to generate initiatives to connect to global efforts without an international organization to spark and lead the process. In all cases, the funding and the idea of the forest-carbon project came from international or outside organizations.

On the one hand, there is the information gap, as the communities understand little about climate change negotiations and carbon markets and the 'paths' to be able to start a project by themselves. There is also the capacity gap to prepare a proper document to design, monitor and report a forest-carbon project, preventing communities from pursuing such initiatives by themselves. On the other hand, the communities are involved in different daily activities for their own livelihoods, and do not connect the forest-carbon as a possibility to earn income or long term conservation benefits, such as watershed management in the CDM project in India. As the project started as having watershed management as the main objective, the communities perceived the carbon component as part of the initiative, and made easier the link between forest and water management.

In certain contexts forests are directly linked to local traditions, and good forest management carries a direct benefit to the conservation of local culture. For example, Khasi Hills communities in India associate conservation of the forest with protection of a deity (*labasa*), who is believed to bring wellbeing to the villagers. Strengthening local cultural institutions facilitated the engagement of communities with forest conservation. Thus, bringing the benefits of good forest management closer to the beliefs or short term needs of the communities can help to engage them in the forest activity.

Dealing with transaction costs

The forest-carbon initiatives assessed have significant transaction costs from beginning to the end (earning the credits). Besides the costs for awareness, training and local institutional building, the typical project requires a series of reporting and technical activities that involve significant amounts of time and expertise. Besides preventing more locally-driven initiatives, these factors also increase the general administrative costs of the project limiting the scope of the projects, as small-scale pilots or community based approaches become difficult to be technically, economically and financially viable.

Those costs can be reduced by making the forest-carbon a part of a larger forest or development project. In the case of Himachal-Pradesh in India, many of the officials working in the forest-carbon initiative were also involved in other projects in the same communities, such as water management or agricultural improvement. Nevertheless, they were not technically able to carry out some steps of the forest-carbon project due to the more complex technical specifications of the CDM methodology for planting and accounting the carbon and for reporting, even with much experience and technical expertise from the officials in the forest department. Thus, external consultants were needed to be hired for this aspect of the project.

The reduction of the transaction costs could bring more resources to the localities where the project is implemented and generating new projects, particularly in small scale. On the other hand, the social and environmental safeguards should not increase the already existing transaction costs that could limit even more the number of locally driven projects. One general issue among the country level government staff is that there are too many social and environmental safeguards and different organizations use different processes to guarantee the safeguards. Thus, clearly a balance needs to be struck in the design of safeguards information systems (for national/sub-national REDD+ frameworks for UNFCCC) and/or safeguards requirements for particular projects that marry sufficient thoroughness with cost-efficiency, as well as a general coordination among donors or investors. The emerging certification schemes may help.

Coupling with economic viability in the long run

The economic viability of the forest-carbon initiatives is a crucial obstacle for establishing and keeping the institutions at the local level. The projects are often experimental without the adequate long term economic viability to build institutions in the long term. The transaction costs are borne by external organizations (generally international). Nevertheless, even without counting the transaction costs, the projects do not seem to make economic sense. As soon as the projects run out of money, there is a risk that all the mechanisms and results can fade away and compromise the achievements of the projects or the credibility of future interventions.

In order to ensure the financial viability of REDD+ given the currently low carbon prices in the face of high opportunity costs, it makes sense to associate projects with other initiatives or desirable outcomes in the same community or region. Thus, when the carbon related financial resources end, the institutions can be sustained because of other development objectives. For example, the HP project linked the CDM initiative with an ongoing watershed management initiative, which also includes different kinds of agricultural related projects.

The emphasis on local development aspects as part of the REDD+ could unleash new alternatives for the long run to benefit the locals. For example, the project in Menu Betiri brought together several income generating activities, such as reforestation projects with local labor. Thus, even if the credits are not available in the future, the community could benefit from other income generating activities, and drive the labor away from forest clearing related activities.

Constructing community co-operation

We found that close-knit communities or homogeneous communities show more capacity to solve collective action problems as can be seen from the Surui in Brazil and Khasi Hill community case in India. Trust factor within the community enhances the possibility that communities will solve internal distributional problems arising from benefit sharing in an equitable manner without capture from local elite or external groups. However, there are certain conditions such as increased out-migration to cities for better employment, demographic change and technological innovation that may also weaken the cohesiveness of the community and ultimately weaken the management of the project. Thus to avoid such situations it is important to develop possible options and demands within the project sites – as for e.g. in the case of Cross River State in Nigeria the youth showed willingness for alternative options as tourism, but with the lack of demand and lack of opportunities beyond farming they may have to emigrate to cities for better employment options.

Even in heterogeneous communities the project proponents may act as an agent for change by instituting a series of far-reaching changes, for instance, by reorienting the bureaucratic culture of the agency, resolving conflicts by providing a forum in which the parties may discuss their differences as witnessed in Meru Betiri National Park in Indonesia. It is possible that REDD+ projects may place restrictions on using the land by local communities that had earlier access as in the case of Nigeria. Such restrictions may lead to conflicts or illegal activities if communities are not appropriately and equitably compensated for their restricted access to resources owing to REDD+ activities.

Strong accountability mechanisms and transparency in decision-making will help avoid the common perception among communities that project proponents are corrupt or do not give enough resources to the community. The contrasting difference between our case study from Brazil where the project integrated ethno-environmental components were built and managed by the indigenous themselves and the Nigerian example where despite the new law to ban logging enforced by government authorities, illegal activities continued indicates clearly that REDD+ projects are more likely to succeed where local communities have a significant presence for sustainable management and where decisions are self-initiated.

It is important that the project proponents focus on two main categories of actions to enhance the likelihood of collaboration and increased community based initiatives in REDD+ projects. First, the project should incorporate activities that demonstrate genuine commitment to co-management of forest resources and the welfare of the community. In addition, the governance system as a whole must set up mechanisms for accountability towards local institutions. Some sort of incentive as a reward in the form of public recognition for local efforts and expertise may be created for state agencies or forest officers to consider the wellbeing of communities as an important measure of successful management.

Community participation in monitoring

Beneficiaries can play an active role in monitoring as reflected in our case studies from India and Brazil. It is often easier and less costly for local communities to monitor and enforce regulations themselves, or with the help of other organizations, such as in the case of the Mbe community and WCS in Nigeria. This also provides a sense of ownership within the community. If the local communities perceive that monitoring and enforcement are handled effectively with their cooperation, this system could have higher legitimacy and sustainability. It also builds confidence among community members especially youth, in their competence of learning new knowledge and building skills that could be useful in other areas.

However, the preparation of communities to be able to support monitoring or monitor the whole project themselves requires a lot of resources and efforts, and may not be possible in all communities as it requires some knowledge, local leadership and interest in monitoring. The case of Surui took almost two years of intensive engagement of local actors with the project. As many of the projects do not have long term perspectives, the full capacity building of a community may not make institutional sense, and hiring a local or even international consultant may be the only solution to run the project.

The monitoring should also go beyond the typical technical aspects of the project (generally related to the forest management) and include issues related to the overall objectives of the project, such as gender balance and benefit sharing among the different members of the community, maybe tying the credits or further support to the other aspects of the project. This would help to strengthen the local processes for bringing local changes leading to equity and fairness.

Clarity in land tenure rights

Clear property rights over land and the natural resources attached to it, including carbon, are important for avoiding conflicts and successful project implementation. On the one hand, this is important to attract external actors willing to put resources in the project. It also makes communities more likely to participate as co-managers in case their tenure rights are strengthened. In our case studies we had varied models of ownership of forests ranging from government to communal to private ownership, but the cases presented no apparent conflicts coming from land tenure. However, one reason for the inexistence of conflicts in the projects may have been that the proponents may have had as criteria to choose areas for the initiative where there is no land tenure conflict, or the benefits of the initiatives are not really seen yet in most cases nor the full costs. In one of the projects, in Surui in Brazil, the interest of the community to guarantee their land rights was one of the main drivers to the engagement in the REDD-like project. Thus, there are opportunities to use REDD+ to increase the security of the tenure for communities facing insecure land rights.

We found that at all the project sites, a broad consensus about the need for clarity on tenure rights does exist among project proponents and efforts are being geared towards attainment of the clarity in tenure at the project sites where forest-carbon initiative takes place. However, avoiding support to areas where there are conflicts or unclear property rights can actually leave out the most vulnerable areas to deforestation, where support is most needed.

6. Conclusions

Forest-carbon projects need to devise processes to engage local and global institutions to improve governance and bring development changes locally. On the one hand, the case studies show no signs that higher level institutions co-opted local institutions and forced the projects on local communities (though it can possibly happen in other cases). On the other hand, international organizations have led the development of projects with limited involvement of local communities, although they benefited from the projects to different degrees. Our case studies suggest that local communities have the capacity to manage projects and their participation increases if the following conditions are met: (i) local communities already maintain some degree of sustainable forest management practices; (ii) the project has the potential to enhance the social and material resources improving livelihoods; (iii) the project incorporates mechanisms to enhance local capabilities for maintaining local resource management institutions; (iii) projects provide solutions to the variety of collective action and local problems; (iv) communities have sufficient information available to increase the legitimacy of project; (v) multi-level linkages through local organizations are developed and (vi) rules are simpler to keep transaction costs down.

REDD+ in its current form is still evolving and there is a need to find appropriate solutions as many complex issues associated with it such as finance mechanisms, MRV, and benefit distribution are imperfectly understood and do not have widely agreed solutions. We conclude that REDD+ projects need to devise innovative combinations to meet an economically rational, organizationally acceptable measure that incorporates technological progress, as well as considers equity, ethics, traditional knowledge and sustainability that are justifiable to a wider range of actors. On the one hand, without the carbon element, and those that want to finance the initiative exactly because of it with all the technicalities it implies (such as MRV), there is no project and no money from the credits. On the other hand, REDD+ projects need to be integrated with other development and environmental initiatives as emphasis on carbon emissions alone under REDD+ could also lead to bureaucratic management and pose the threat of recentralization of forest governance that would grow analogous to logging permits rather than promoting the co-benefits from forests.

References

- Akanni, Adeniran Amidu (2013). Assessment of socio-economic indicators in Afi and Mbe pilot REDD+ communities in Cross –River state, Nigeria. Master's thesis United Nations University (UNU-IAS), Yokohama, Japan.
- Amika, E.B.O. (2003). Gender issues in Community Forestry. Pp. 100–111 in: S.O Akindele and L. Popoola (Eds). *Community Forestry and Stakeholders' Participation in Sustainable Development*. Proceedings of the 29th Annual Conference of the Forestry Association of (F.A.N). 6–11 October 2003. Cultural Centre, Calabar, Cross River State, Nigeria.
- Angelsen, A. and Brockhaus, M. (Eds.) (2009). *Realising REDD+: National strategy and policy options*. CIFOR (Free PDF Download).
- Belcher, B., Bastide, F., Castella, J.C., and Boissière, M. (2013). Development of a Village-Level Livelihood Monitoring Tool: A Case-Study in Viengkham District, LAO PDR: Desarrollo de una herramienta de monitoreo de medios de subsistencia a escala de comunidad: un estudio de caso del distrito de Viengkham, RDP Lao. *International Forestry Review*, 15(1), 48–59.
- Bisong, F.E. (2003). Participatory Land use planning for community based Forest Management in Cross River State, Nigeria. 111 in: S.O Akindele and L. Popoola (Eds). *Community Forestry and Stakeholders' Participation in Sustainable Development*. Proceedings of the 29th Annual Conference of the Forestry Association of (F.A.N). 6–11 October 2003. Cultural Centre, Calabar, Cross River State, Nigeria, pp.333–340.
- Blom, B., Sunderland, T., and Murdiyarto, D. (2010). Getting REDD to work locally: lessons learned from integrated conservation and development projects. *Environmental Science and Policy*, 13(2), 164–172.
- Brown, D., Seymour, F., and Peskett, L. (2008). How do we achieve REDD co-benefits and avoid doing harm. *Moving ahead with REDD: issues, options and implications*, 107–118.
- Brown, H.C.P., Smit, B., Somorin, O.A., Sonwa, D.J., and Nkem, J.N. (2014). *Climate Change and Forest Communities: Prospects for Building Institutional Adaptive Capacity in the Congo Basin Forests*. *Ambio*, 1–11.
- Brown, K. and E. Corbera (2003). Exploring equity and sustainable development in the new carbon economy. *Climate Policy* 3(S1): 41–56. <http://dx.doi.org/10.1016/j.clipol.2003.10.004>
- Cardona, W.C. (2012). *Formal Institutions, Local Arrangements and Conflicts in Northern Bolivian Communities After Forest Governance Reforms: Formele Instituties, Lokale Regelingen en Conflicten in Noord-boliviaanse Bosgemeenschappen Na Hervormingen Van Het Bosbeleid*. PROMAB.
- Chhatre, A. and Agrawal, A. (2008). Forest commons and local enforcement. *Proceedings of the National Academy of Sciences* 105 (36), 13286–13291.

- Constantino, P.D.A.L., Carlos, H.S.A., Ramalho, E.E., Rostant, L., Marinelli, C.E., Teles, D., et al. (2012). Empowering Local People through Community-based Resource Monitoring: a Comparison of Brazil and Namibia. *Ecology and Society*, 17(4), 22.
- Cronkleton, P., Bray, D.B., and Medina, G. (2011). Community forest management and the emergence of multi-scale governance institutions: lessons for REDD+ development from Mexico, Brazil and Bolivia. *Forests*, 2(2), 451–473.
- Danielsen, F., Adrian, T., Brofeldt, S., van Noordwijk, M., Poulsen, M.K., Rahayu, S., et al. (2013). Community monitoring for REDD+: international promises and field realities. *Ecology and Society*, 18(3), 41.
- Danielsen, F., Skutsch, M.D., Burgess, N.D., Jensen, P.M., Andrianandrasana, H., Karky, B., Lewis, R., Lovett, J.C., Massao, J., Ngaga, Y., Phartiyal, P., Poulsen, M.K., Singh, S.P., Solis, S., Sørensen, M., Tewari, A., Young, R., and Zahabu, E. (2011). At the heart of REDD+: a role for local people in monitoring forests? *Conservation Letters* 4:158–167.
- Deininger, K. (2003). *Land policies for growth and poverty reduction*. Washington, DC: World Bank and Oxford University.
- den Besten, J.W., Arts, B., and Verkooijen, P. (2014). The evolution of REDD+: An analysis of discursive-institutional dynamics. *Environmental Science and Policy*, 35, 40–48.
- DFID – Department of International Development (2001). *Cross River State community forest project*. Non-timber Forest Products Advisor, Dfid-UK.
- Dougill, A.J., Stringer, L.C., Leventon, J., Riddell, M., Rueff, H., Spracklen, D.V., and Butt, E. (2012). Lessons from community-based payment for ecosystem service schemes: from forests to rangelands. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 367(1606), 3178–3190.
- Duchelle, A.E., Cromberg, M., Gebara, M.F., Guerra, R., Melo, T., Larson, A., et al. (2014). Linking forest tenure reform, environmental compliance, and incentives: lessons from REDD+ initiatives in the Brazilian Amazon. *World Development*, 55, 53–67.
- Eliasch, J. (2008). *Eliasch Review: Climate Change: Financing Global Forests*. UK Office of Climate Change.
- ERA/FoEN – Environment Rights Action/Friends of the Earth Nigeria (2011). *Report of forum on REDD+ and forest dependent community rights*. <http://www.reddmonitor.org/wordpress/wp-content/uploads/2011/04/Appendix-11.pdf> (Weblink accessed in 17 November, 2013)
- Escaquete, D., Brazil, B., Santos, E., and West T., (2013). *Metareilá VCS verif 13, Verification Assessment Report for: Suruí Forest Carbon Project in Terra Indígena Sete de Setembro, Rondônia, Brazil, Rainforest Alliance, Washington, USA*.
- FAO – Food and Agriculture Organization (2010). *Global Forest Resources Assessment 2010, Myanmar Country Report*. FAO, Rome, Italy.
- Fonta, W., Hyacinth, I., and Elias, A. (2011). *The Distributional Impacts of Forest Income on*

Household Welfare in Rural Nigeria. *Journal of Economics and Sustainable Development*, 2(2), 1–13.

GCF – Governors Climate Forum (2010). Database. <http://www.gcftaskforce.org> (Web link accessed in 15 May, 2014).

Gupta, J. (2012). Glocal forest and REDD+ governance: win–win or lose–lose? *Current Opinion in Environmental Sustainability*.

Hayes, T., and Persha, L. (2010). Nesting local forestry initiatives: Revisiting community forest management in a REDD+ world. *Forest Policy and Economics*, 12(8), 545–553.

Holland, M.B., Koning, F.D., Morales, M., Naughton-Treves, L., Robinson, B., and Suarez, L. (2013). Complex tenure and deforestation: Implications for conservation incentives in the Ecuadorian Amazon. *World Development*, 55, 21–33.

IBGE – Brazilian Institute of Geography and Statistics (2012). Censo demográfico 2010. Características gerais dos indígenas – resultados do universo. Ministry of Planning, Budget and Management, Rio de Janeiro, Brazil.

IDESAM – Institute for Conservation and Sustainable Development of Amazonas (2011). Project Description: Suruí Forest Carbon Project. Manaus, Brazil.

Ijeoma, H.M. and Aiyeloja, A.A. (2010). Practical issues in forest and wildlife resources management. Published by Green canopy consultant, Port Harcourt, Nigeria.

IPCC – Intergovernmental Panel on Climate Change (2007). In: Pachauri, R.K., Reisinger, A. (Eds.), *Climate Change 2007: Synthesis Report*. World Meteorological Organization, Geneva, Switzerland., p.104. http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_synthesis_report.htm.

Kant, P., Oo, T.N. and Ma, H.O. (2014). Forest Emission Reference Level/Forest Reference Level in accordance with the Warsaw Framework on REDD+. Myanmar Forest Department. Nay Pyi Taw, Myanmar.

Karsenty, A. and Ongolo, S. (2012). Can “fragile states” decide to reduce their deforestation? The inappropriate use of the theory of incentives with respect to the REDD mechanism. *Forest Policy and Economics* 18:38–45. <http://dx.doi.org/10.1016/j.forpol.2011.05.006>.

Larrazábal, A., McCall, M.K., Mwampamba, T.H., and Skutsch, M. (2012). The role of community carbon monitoring for REDD+: a review of experiences. *Current Opinion in Environmental Sustainability*, 4(6), 707–716.

Larson, A.M. (2011). Forest tenure reform in the age of climate change: Lessons for REDD+. *Global Environmental Change*, 21(2), 540–549.

Linacre, N., Kossoy, A., Ambrossi, P. (2011). State and Trends of the Carbon Market 2011. World Bank, Carbon Finance, Environment Department, Washington, DC, pp. 1–84.

- Lindhjem, H., Bråten, G., Gleinsvik, A., and Aronsen, I. (2010). Experiences with benefit sharing: issues and options for REDD-plus. Econ Pöyry and Vista report R-2010-018.
- Luttrell, C., Loft, L., Gebara, M.F., Kweka, D., Brockhaus, M., Angelsen, A., and Sunderlin, W.D. (2013). Who should benefit from REDD+? Rationales and realities. *Ecology and Society*, 18(4), 52.
- Matthews, R.B., van Noordwijk, M., Lambin, E., Meyfroidt, P., Gupta, J., Verchot, L., et al. (2014). Implementing REDD+ (Reducing Emissions from Deforestation and Degradation): evidence on governance, evaluation and impacts from the REDD-ALERT project. *Mitigation and Adaptation Strategies for Global Change*, 1–19.
- McCarthy Oyebo, F.B. and Morakinyo, T. (2011). A UNDP and Federal Ministry of Environment preliminary Assessment of the context for REDD+ in Nigeria.
- McDermott, C.L., Coad, L., Helfgott, A., and Schroeder, H. (2012). Operationalizing social safeguards in REDD+: actors, interests and ideas. *Environmental Science and Policy*, 21, 63–72.
- McDermott, M., Mahanty, S., and Schreckenber, K. (2013). Examining equity: a multidimensional framework for assessing equity in payments for ecosystem services. *Environmental Science and Policy*, 33, 416–427.
- Morgan, B., Adeleke A., Basse, T., Bergl, R., Dunn, A., Fotso, R., Gadsby, E., Gonder, K., Greengrass, E., Koulagna, D., Mbah, G., Nicholas, A., Oates, J., Omeni, F., Saidu, Y., Sommer, V., Sunderland-Groves, J., Tiebou, J. and Williamson, E. (2011). Regional action plan for the conservation of the Nigeria-Cameroon Chimpanzee. IUCN/SSC primate specialist group and Zoological society of San Diego, CA. USA.
- Muller, F.B. (2014). Povo Paiter Suruí vende primeiros créditos de carbono por desmatamento evitado em terras indígenas. Instituto Carbono Brasil, Retrieved from: http://www.institutocarbonobrasil.org.br/redd_/noticia=735097
- Mustalahti, I., Bolin, A., Boyd, E., and Paavola, J. (2012). Can REDD+ reconcile local priorities and needs with global mitigation benefits? Lessons from Angai Forest, Tanzania.
- Narayamoga Suruí, A., Bandeira Cardozo, I., and Salgado, C. (2008). Plano de Gestão Etnoambiental da Terra Indígena Sete de Setembro, Associação Metareila do povo Indígena Suruí, Associação de Defesa Etnoambiental Kanindé, Conservação da Amazônia (ACT Brasil).
- Olander, J., Borges, B., Narayamoga Surui, A. (2010). The Surui Project: building indigenous peoples' capacity for informed engagement with REDD finance. In *Avoided Deforestation (REDD) and Indigenous Peoples: experiences, challenges and opportunities in the Amazon context*. Brasília, Brazil. Instituto Socioambiental and Forest Trends.
- Oo, T.N. (2013). Current Status of REDD+ Readiness Preparation in Myanmar. Proceedings of the Workshop on Capacity Building for Developing REDD-Plus Activities in the context of SFM, 26 December 2012. Nay Pyi Taw, Myanmar.

Ostrom, E. (2005). *Understanding Institutional Diversity*. Princeton University Press.

Ottong, J., Simon, E., Felix, A. (2010). The population situation in Cross River state of Nigeria and its implication for socio-economic development: Observations from 1991 and 2006 censuses. *Journal of emerging trends in educational research and policy studies* 1 (1):36–42.

Palmer Fry, B. (2011). Community forest monitoring in REDD+: the ‘M’ in MRV? *Environmental Science and Policy*, 14(2), 181–187.

Pavan, M.N. and Cenamo, M.C. (2012). *REDD+ nos estados da Amazônia: mapeamento de iniciativas e desafios para integração com a estratégia brasileira* (2 ed.), Instituto de Conservação e Desenvolvimento Sustentável do Amazonas IDESAM, Manaus, Brazil.

Pedroni, L., Dutschke, M., Streck, C., and Porrua, M.E. (2009). Creating Incentives for Avoiding Further Deforestation: The Nested Approach. *Climate Policy* 9(2): 207–220.

Peskett, L., Schreckenber, K., and Brown, J. (2011). Institutional approaches for carbon financing in the forest sector: learning lessons for REDD+ from forest carbon projects in Uganda. *Environmental science and policy*, 14(2), 216–229.

Phelps, J., Webb, E.L., and Agrawal, A. (2010). Does REDD+ threaten to recentralize forest governance. *Science*, 328 (5976), 312–313.

Pistorius, T. (2012). From RED to REDD+: the evolution of a forest-based mitigation approach for developing countries. *Current Opinion in Environmental Sustainability*, 4(6), 638–645.

Pratihast, A.K., Herold, M., Avitabile, V., de Bruin, S., Bartholomeus, H., and Ribbe, L. (2012). Mobile devices for community-based REDD+ monitoring: a case study for central Vietnam. *Sensors*, 13(1), 21–38. Press. Princeton, NJ: *Public Forests in Transition*. Forest Trends, Washington, DC.

Puppim de Oliveira, J.A. (2014). The Mismatch of Implementation Networks in International Environmental Regimes: Lessons from Different Agreements. *Best Practices for Architecture and Agency*. In: Kanie, N., Haas, P.M. and Andersen, S. (Eds.), *Improving Global Environmental Governance: Best Practices for Architecture and Agency*. New York: Routledge. pp.108–129.

Puppim de Oliveira, J.A., Cadman, T., Ma, H.O., Maraseni, T., Koli, A., Jadhav, Y.D., Prabowo, D. (2013). *Governing the Forests: An Institutional Analysis of REDD+ and Community Forest Management in Asia*. Policy Report. Yokohama, Japan: United Nations University Institute of Advanced Studies and International Tropical Timber Organization.

Ragin, C. and Becker, H.S. (Eds.) (1992). *What is a Case? Exploring the Foundations of Social Inquiry*. Cambridge University Press, Cambridge.

RRI (2012). *What rights?: A comparative analysis of developing countries’ national legislation on community and indigenous peoples’ forest tenure rights*. Washington DC: Rights and Resources Initiative.

- Salvini, G., Herold, M., De Sy, V., Kissinger, G., Brockhaus, M., and Skutsch, M. (2014). How countries link REDD+ interventions to drivers in their readiness plans: implications for monitoring systems. *Environmental Research Letters*, 9(7), 074004.
- Santilli, M. (2010). Indigenous lands and the climate crisis. In *Avoided Deforestation (REDD) and Indigenous Peoples: experiences, challenges and opportunities in the Amazon context*. Instituto Socioambiental and Forest Trends. Brasília, Brazil.
- Skutsch, M. (Ed.) (2011). *Community forest monitoring for the carbon market*. Earthscan, London.
- Somorin, O.A., Visseren-Hamakers, I.J., Arts, B., Sonwa, D.J., and Tiani, A.M. (2014). REDD+ policy strategy in Cameroon: Actors, institutions and governance. *Environmental Science and Policy*, 35, 87–97.
- Stern. (2006). *Stern Review: The economics of climate change*. Cambridge University Press, Cambridge: 217.
- Sunderlin, W.D., and Sills, E.O. (2012). REDD+ projects as a hybrid of old and new forest conservation approaches. *Analysing REDD*, 177.
- Sunderlin, W.D., Larson, A.M., Duchelle, A.E., Resosudarmo, I.A.P., Huynh, T.B., Awono, A., and Dokken, T. (2014). How are REDD+ proponents addressing tenure problems? Evidence from Brazil, Cameroon, Tanzania, Indonesia, and Vietnam. *World Development*, 55, 37–52.
- Suruí, C. (2013). *Reflorestamento da Terra Indígena Sete de Setembro: uma mudança da percepção e da conduta do povo Paiter Suruí de Rondônia?* (Master Dissertation in Sustainable Development), Universidade de Brasília, DF.
- Vitel, C.S.M.N., Carrero, G.C., Cenamo, M.C., Leroy, M., Graça, P.M.L.A. and Fearnside, P.M. (2013). Land-use change modeling in a Brazil indigenous reserve: construction of a reference scenario for the Suruí Redd Project. *Human Ecology*, 41, 807–826.
- WCS – Wildlife Conservation Society (2012). *Mbe Mountains Quarterly Reports*. Mimeo.
- Win, R.N. (2013). *Community Forestry Development and REDD+ in Myanmar*. Proceedings of the Workshop on Capacity Building for Developing REDD-Plus Activities in the context of SFM, 26 December 2012. Nay Pyi Taw, Myanmar.
- White, A., and Martin, A. (2002). *Who owns the world's forests*. Forest Trends, Washington DC.

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Strengthening Development in International-Local Institutional Linkages in REDD+: Lessons from Existing Forest-Carbon Initiatives

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This study seeks to understand how best to connect local and international institutions based on lessons learnt from existing initiatives in the forest sector that aim to achieve greenhouse gas emission reductions (often referred to as 'forest-carbon' initiatives) in order to inform the current debates and actions on REDD+ (Reducing Emissions from Deforestation and Forest Degradation in Developing Countries). REDD+ can be interpreted as an example of a global payment for ecosystem services (PES). There are many PES initiatives involving carbon stocks in forests around the world, operating at different scales and with various scopes. This report analyzes some of these initiatives to highlight the key factors enabling the effective matching of local institutions with global institutions to achieve global environmental objectives (e.g., GHG reductions) in the context of local development priorities (e.g., income generation, increased participation in resource management, fairness in access of resources, secure land tenure) and inherent trade-offs at local level.



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