



FORESTS ASIA SUMMIT

Background Brief



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Theme 3

Climate change and low emissions development on the ground

Background and context

Climate variability and climatic change threaten economic activity, human security and sustainable development in Southeast Asia, which contains some of the largest rain forest areas in the world. The region's potential contribution to forest-related emissions, and to climate mitigation is significant. Carbon-dense forested systems that exist with the tropical peatlands and mangroves require special attention. Tropical peatlands cover only 0.25% of the global land surface, but contain as much as 6% of total global soil carbon stocks (Page et al. 2011). Carbon stocks in mangroves have not yet been estimated, but research shows that

carbon density in these systems is as high as, or higher than that in peatlands. Southeast Asia is home to 56% of the world's tropical peatlands and 35% of the world's mangroves.

Many countries around the world are developing explicit strategies to promote "green" or "bio-based" economic transitions to reduce their dependency on non-renewable resources and increase sustainability (Kircher 2012). "Green Economy" (GE) and "Green Growth" visions seek to improve human well-being and social equity, while significantly reducing environmental risks and ecological scarcities, thus protecting natural capital (UNEP 2010, 2011). The GE concept specifically



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recognizes that we are reaching planetary limits and challenges the primacy of growth as a tenet of the current economic model (de Morsella 2009). "Green Growth" seeks to sustain economic growth while ensuring climatic and environmental sustainability (UN-DESA 2012). In this context, Low-Emission Development Strategies (LEDS; also called low-carbon development) describe "forward-looking national economic development plans or strategies that encompass low-emission and/or climate-resilient economic growth" (OECD, IEA 2010, cited from UN-DESA 2012). Here we will refer to GE/LEDS.

REDD+ is a policy framework aimed at mitigation actions by developing countries in the forest sector. It is a LEDS measure and a potential source of economic growth in developing countries. Although the international negotiations concerning non-carbon benefits and safeguards information systems are ongoing, substantial progress was made 2013 in Warsaw, with the completion of a number of decisions related to measuring, reporting and verifying (MRV), forest reference emissions levels and results-based payments through the delivery of the 'Warsaw Framework for REDD+'. Here we discuss two aspects linking REDD+ to GE/LEDS:

1. REDD+ will be an important element of GE/LEDS (UNEP 2014). REDD+ is (i) a low carbon emissions activity (i.e. it seeks to protect forests), (ii) potentially a source of economic growth (i.e. it creates economic incentives to protect forest), and (iii) aims to be pro-poor. REDD+ can help to safeguard forest ecosystem services, improve forest governance and protect the rights of indigenous peoples and local communities in the transition to a global green economy. Forest management will be an important part of any GE/LEDS pathway.
2. REDD+ can be particularly influential in informing broader policy debates about low emissions development in and around forests. REDD+ policies and mechanisms have been tested and debated for several years now. Lessons from REDD+ highlight the challenges associated with LEDS in the forest sector, and the trade offs inherent to many REDD+ decisions (Phelps, In Press). As such, it seems the right moment to reflect on the lessons from REDD+ experimentation and implementation on the ground and how this may inform efforts on the pathway to GE/LEDS.

This paper attempts to summarize lessons learned in five years of research on REDD+ implementation, drawing from among others, CIFOR's *Global Comparative Study* (GCS) on REDD+ carried out in 13 countries¹, and make them available to the broader GE/LEDS debate. We ask two key questions: How can the design of REDD+ as a policy mechanisms be shaped to achieve 3E+ outcomes (effectiveness, efficiency, equity with co-benefits) in the context of green economy developments? And what are REDD+ lessons for policy reforms that countries can implement without regrets (i.e. policies that are beneficial with or without a REDD mechanism in place) to pave the way and help fast-tracking low-carbon emissions development policies? We do so by looking in different sections at the important elements of REDD+.

The paper is conceived as a background paper intended to help inform discussions on climate change and low emissions development on the ground at the *Forests Asia Summit* in May 2014 in Jakarta. This paper identifies policy needs, research gaps and the roles that stakeholders may want to take on in this development.

¹ Bolivia, Brazil, Burkina Faso, Cameroon, Democratic Republic of Congo Indonesia, Laos, Mozambique, Nepal, Papua New Guinea, Peru, Tanzania, and Vietnam

Governance

Policy needs

Although the aim of REDD+ is to provide performance-based payments for emissions reductions, outcomes in terms of emission reductions and co-benefits are not yet visible. An analysis of the factors that enable national-level REDD+ processes reveals a set of conditions and characteristics of the policy process under which REDD+ policies can be established even in countries with weak governance (Korhonen-Kurki et al. 2014; Karsenty and Ongolo 2011). First, *path dependencies and institutional stickiness* have been observed in all 13 of the GCS study countries. Second, only those countries that had already embarked on a *path of enabling institutional change* could relatively quickly establish REDD+ policies – and only if they also felt either *high pressure from forest-resource shortages* or if *key features of effective forest legislation, policy, and governance were already in place*. Furthermore, where an enabling institutional setting was in place, *national ownership and transformational coalitions* were shown to be crucial conditions for success. Globally, only three countries meet these conditions, two of which, Indonesia and Vietnam, are in Southeast Asia (Brazil is the third country). In many countries in the Asia region, the focus continues to prevail on the international REDD+ debates rather than moving to address the direct and indirect drivers of deforestation and forest degradation associated with domestic governance structures and related obstacles (Indrarto et al. 2012; Pham et al. 2012; Babon et al. 2013; Brockhaus et al. 2013; Korhonen-Kurki et al. 2013; Paudel et al. 2013).

Comparative policy network research was used in another study to analyze the power structures in national REDD+ policy domains in seven REDD+ countries. This confirmed the importance of national ownership over the policy process as a prerequisite for progress (Brockhaus and Di Gregorio In Press). The study measured *reputational power of actors* (how powerful they are perceived by other actors relevant to the policy domain). This revealed that if power is concentrated in only a few or one actor in the policy arena, progress will be possible only if these actors' interests are aligned with the objectives of REDD+ and address the drivers of deforestation and forest degradation. Furthermore, although cooperation is often perceived as crucial to achieve collective decisions, *a certain level of conflict* seemed to be necessary for progress to be made in national-level REDD+ decision-making. More advanced REDD+ countries have gone beyond the honeymoon phase when most policy actors embrace the broad idea



of REDD+. Here, policymakers must deal with the difficult realities of negotiating against established business-as-usual interests, often at high political costs. These struggles tend to intensify when policy actors must decide on the concrete details of their national REDD+ strategies in the absence of obvious short-term win-win outcomes.

A crosscutting challenge for REDD+ is effective *coordination and alignment of priorities across multiple levels and sectors*. REDD+ is inherently a multilevel process. Incentives are generated at the global level, while emission-reducing activities ultimately occur on the ground. In between, national and subnational actors must coordinate REDD+ activities with other development objectives, establish reference levels, design and implement systems for MRV and benefit-sharing, ensure that land tenure systems are appropriate, and apply rigorous social and environmental safeguards. To integrate REDD+ successfully with a broader development agenda, the goals of projects and programs must be clear and consistent. To date, such clarity and consistency has been elusive. At the global level, REDD+ discourses tend to consider carbon sequestration and avoided emissions from land-use change to be the principal “benefit” of REDD+. Other benefits, including livelihoods, biodiversity, institutional improvement, and other ecosystem services are termed “co-benefits” or “non-carbon benefits.” This conceptualization virtually reverses when we move from the global to the local level. To many local actors – including smallholders, communities, and local and regional decision-makers – the principal potential benefits of REDD+ are: cash income, other livelihoods benefits, infrastructure and other development-related benefits. This highlights the importance of *identifying the objectives – whether REDD+, or GE/LEDS) very clearly and recognizes that many environment and development decisions involve difficult trade offs*. Lessons highlight the need to identify synergies, and to recognize that REDD+ decisions involve trade offs (temporal, spatial) that will have differential impacts on different groups of actors, and that these need to be identified, discussed and negotiated. In fact, many of these issues are related to debates about power, benefit distribution and equity. Proponents of the original REDD idea as a PES mechanism saw the opportunity cost of REDD+ as very low, but the real cost is the price of development. This mismatch of expectations is one important reason for the slow pace of progress in negotiations to date.

There are also issues of *coordination between sectors*. Authority for managing the design and implementation of REDD+ is not always housed in the government ministry that has relevant authority over land-use decision-making. Better multilevel governance is

necessary to bring land-use decision-making at the local subnational level into better alignment with national and global needs, to improve coordination between different sectors and government ministries, and to integrate REDD+ with other development goals. These problems multiply almost exponentially when the objectives become much broader in the GE/LEDS debate.

Improved multilevel governance, including coordination across sectors, is especially important in the context of a move towards so-called “jurisdictional REDD+,” which occurs at the scale of an entire jurisdiction (e.g. nation, province or district). Here, formal government jurisdictions coordinate key aspects of REDD+, including: harmonized MRV, standards for safeguards, and coherent policies for benefit-sharing. Jurisdictional REDD+ is advantageous in terms of integrating REDD+ with broader development goals because it houses the purview of environmental sustainability and downward accountability in the same place: government. In practice, implementing jurisdictional REDD+ is challenging precisely because of issues related to multilevel and multi-sector coordination. *Understanding which actors, at different levels and in different sectors, have which powers relevant to REDD+ across the landscape* – legally and in practice – is an essential first step to developing an effective, efficient and equitable jurisdictional REDD+.

Research gaps

- How can we use the knowledge generated on: the stickiness of institutions, the importance of national ownership, the role of coalitions of power and of conflict as a debate-stimulating factor to efficiently accelerate progress in countries that do not currently have the enabling conditions mentioned above? How can we use this understanding to design the most efficient pathways for the phase II countries towards full REDD+ implementation, and towards GE/LEDS?
- REDD+ progress is understood as a movement through three phases, and most REDD+ countries are still either in phase I (readiness), or in the early stages of phase II (policy measures), when political costs become apparent and power struggles emerge (Korhonen-Kurki et al. 2014). We do not have a clear understanding yet of how REDD+ policy processes will unfold once REDD+ moves into the realities of phase III (results-based action). This will be an important process of REDD+ studies in the next decade. Once available, valuable lessons for GE/LEDS implementation ‘on the ground’ – where reality defies expectations – can be developed.

- To understand the challenges and opportunities for REDD+ progress and to develop meaningful performance assessments, it is necessary to understand how power structures in the REDD+ policy arena shift over time. More detailed analysis of the issues on the policy agenda in specific phases, and of the influence, interests and relations of key policy actors is required (Brockhaus and Di Gregorio 2014).
- We are making a major global effort at comparative research on REDD+, but our analysis is limited by the small number of case studies available. Having more cases at hand while REDD+ moves into phase III will greatly increase our understanding, again with valuable lessons for GE/LEDS.
- Multilevel/multisectoral coordination remains a challenge even in developed countries. How can a minimum set of tasks be developed to address the complex transformational changes needed in the transition to GE/LEDS and embedding mechanisms such as REDD+ in developing countries? Policy and structural changes in other sectors and in the overall economy could enable countries to successfully reduce forest-related emissions. For example, measures to intensify agriculture can, in theory, reduce the pressure on forests by providing a viable alternative to forest clearing, but may also attract new migrants and be counterproductive for forest conservation. Strict forest protection can be an effective conservation tool but may not be politically feasible if it does not provide alternative sources of income to stakeholders. Combining these policies in a broader GE/LEDS policy can generate politically acceptable win-win outcomes. Similarly, changes in the level and composition of demand for agricultural and forest products can increase the effectiveness of more forest specific interventions.
- However, despite opportunities for both economic development and the environment, research has highlighted important potential trade offs associated with bio-based transitions at a global scale. For example, the diversion of agricultural land from food to energy crops or forest plantations can affect food supply and smallholder livelihoods. Expanding agriculture further into natural ecosystems may compromise their multiple ecological functions, such as biodiversity conservation and carbon fixation (i.e. ecosystem services trade off). There is a tremendous potential for research in trade offs and synergies.
- How to negotiate the balance of synergies and trade offs between potentially conflicting goals particularly as market mechanisms often do not seem to gain the necessary traction? What is the optimal mix of markets and regulations?



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Stakeholder roles

- Governments must step up their efforts to create the necessary framework conditions of good governance, which includes generating national ownership, to move from an internationally dominated towards a nationally dominated debate. Some countries are more advanced in this than others. This includes providing platforms for innovation so that *the voice of coalitions challenging the business-as-usual group can be heard*. It is also important to build constituencies and capacities critical to the eventual success of REDD+. *Inclusiveness* (in the sense of full and effective participation) is an important element of accountable and efficient policy processes, whether it is REDD+ or GE/LEDS.
- Pending greater certainty on the future of REDD+, priority should be given to so-called 'no regrets' policy reforms – e.g. the need for broad tenure regulation, multilevel coordination improved forest governance and capacity building; better forest data, and the removal of perverse incentives – that put countries on track towards outcomes that are desirable, regardless of international climate objectives (Seymour and Angelsen 2012). However, players in some countries see REDD+ as an opportunity to strengthen an otherwise impossible forest governance reform process.
- *Capacity development efforts* are important in providing countries with the knowledge, skills and understanding of issues and processes for progress. National actors are increasingly connecting with, and

influencing, national REDD+ policy processes. Anecdotal evidence shows that this is partly due to capacity building received from interacting with NGOs or international research partners. Similarly, efforts to promote LEDS within a GE must consider the need for building sufficient national capacity for the understanding of these complex issues.

- Although in theory, policymaking should be evidence-based and solution-oriented, political realities rarely match these expectations, because there is limited interest in evidence and solution-oriented action or because evidence is not produced or made available. Therefore the *process of policy learning* for improved REDD+ policy design, linked to global UNFCCC guidance and local projects, needs more elucidation. This is particularly important for the discussion of yet undecided issues such as safeguards and Joint Mitigation and Adaptation (JMA) (see below).

Finance

Policy needs

Another major challenge perceived by REDD+ proponents lies in the currently disadvantageous economics of REDD+. Funding for REDD+ activities has come overwhelmingly in the form of development assistance (approximately US\$ 6 billion to date), and very little has come from the voluntary markets (several US\$ 100 million). In order to reduce annual deforestation by 50% by 2020, there must be a global supply of 3,300–9,900 MtCO₂e in emissions reductions from all forest and land-use activities, yet the potential demand for such reductions – given funding limitations – is only an estimated 253 MtCO₂e. With demand 13–39 times smaller than supply, there is a US\$ 15–48 billion funding gap for REDD+ until 2020 (IFF 2014,8). In contrast, “price and production subsidies for fossil fuels collectively exceeded US\$ 650 billion in 2008” (UNEP 2011). The funding stream for REDD+ must increase substantially. Reasons why a strong forest carbon market has not yet materialized include the recent global financial crisis and delays associated with reaching a global agreement on climate change. One challenge to REDD+ finance, as countries see it, lies in the international negotiation process: while 14 COP decisions have been adopted between COP11 and COP19 to define REDD+, no clear decision on finance has yet been reached. However, before countries can reach the stage of selling emission reductions in markets (assuming there would be such a market),



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they need to have gone through the required steps in the readiness stages, which, as stated above, most countries have not done. The private sector has refrained from investing in REDD+ for various reasons, as follows:

- uncertainty about the future demand for carbon credits;
- volatility in the carbon market;
- investor preference for low-cost mitigation rather than funding co-benefits;
- the effects of economic recession on the price and volume of carbon credits;
- the decision by the European Trading Scheme not to recognize REDD+ credits because of the possibility that an oversupply of credits might depress carbon prices (Hamilton et al. 2010; Phelps et al. 2011).

Discussions at the international level are moving beyond such extensive reliance on markets and are considering the potential of non-market based

mechanisms. The Green Climate Fund has made progress in establishing a framework to finance REDD+ once it has been capitalized.

Although performance-based conditional rewards were meant to be the centerpiece of REDD+, and result-based payments have been moving forward both with decisions at COP Warsaw and in the Green Climate Fund, most of the REDD+ project proponents studied by Sunderlin et al. (2014) view other, *non-conditional interventions as being the most important*. Representatives of 23 proponent organizations were asked to identify the type of intervention they considered most important for effectively reducing deforestation and forest degradation at their sites. Nine saw conditional livelihood incentives as the most important, while 14 gave other answers, including: tenure clarification, restrictions on forest access and conversion, non-conditional livelihood incentives, and forest enhancements, among others. This suggests some possible doubt about the centrality of conditional incentives.

The primary purpose of REDD+ is to help mitigate climate change by avoiding the release of carbon emissions caused by deforestation and forest degradation. Mitigation is crucial for limiting the extent of climate change and the severity of its impacts on society. Yet even with strong mitigation efforts, the climate will continue to change. Therefore, we must be prepared to adapt to these changes—to adjust human and natural systems so that communities are more resilient and can cope with the harmful effects of climate variability. It makes sense to analyze the linkages (synergies and trade offs) between mitigation and adaptation strategies and identify opportunities to enhance the joint outcomes, as forests are important for mitigation and adaptation. For example, REDD+ can support measures that help reduce forest communities' vulnerability to the effects of climate change. REDD+ projects are more likely to be sustainable and their carbon storage to be permanent if they incorporate adaptation measures for communities and forest ecosystems (Guariguata et al. 2008; Locatelli 2011). Integrating adaptation measures can increase local people's acceptance of a project, because with adaptation, the emphasis is on immediate local needs – whereas mitigation has longer-term global benefits (Locatelli et al. 2011; Pramova et al. 2012b). If an adaptation project includes activities that contribute to climate change mitigation, it could benefit from the carbon funding and capacity building inherent in REDD+ (Locatelli et al. 2011; Pramova et al. 2012a). Furthermore, donors may favor adaptation projects that include global mitigation benefits (Locatelli et al. 2011).

Research gaps

- Research is needed to analyze national and international policies and standards to see how they can support integration between mitigation and adaptation efforts, e.g. in the joint mitigation and adaptation (JMA) context, we should assess the vulnerability of communities and forests, and explore the outcomes of ecosystem-based approaches to adaptation. This is also related to harmonizing multilevel and multi-sector policies.
- More research is needed to elucidate the role of conditional incentives at the local level and identify the level at which results-based finance should be deployed.

Stakeholder roles

- Early REDD+ implementation has benefited from increased 'aidification', but REDD+ cannot proceed on this basis. *Countries need to commit to reducing emissions and put the necessary mechanisms in place. Firm financial commitments are required from countries and the private sector.* Due to the link between REDD+ finance and readiness explained above, this requires serious steps towards solving the 'chicken-and-egg' problem between delay in REDD+ finance and REDD+ readiness.
- In their efforts to move towards a GE/LEDS, countries need to consider the funding mechanisms and the level to which they will depend heavily on (i) donor support and (ii) national or international political commitments, as market mechanisms do not necessarily get traction in an uncertain political environment.
- Clearly, urgent action is required by countries to redirect subsidies from fossil fuels towards REDD+ and GE/LEDS efforts.
- Countries should prepare for the eventuality that REDD+ may become part of a market-based compliance mechanism and that non-market based approaches will be developed. For example, many countries are beginning preparations to gain eligibility to receive funding through the Green Climate Fund, which identifies REDD+ as a priority results area for funding.
- Similarly, efforts to move towards a GE/LED need to consider the level to which they will depend on public or private funding given that market mechanisms have not yet proven to be successful in the case of REDD+.

Monitoring

Policy needs

The establishment of Forest Reference Emission Levels and/or Forest Reference Levels (see UNFCCC Decision 12/CP.17) (FRELs and FRLs), and of systems for measuring, reporting and verifying (MRV) emissions reductions and removals (14/CP.19) is crucial to enable payments for results. National forest monitoring systems – which countries have to establish as part of implementing REDD+ – require several types of input data: activity data, emission/removal factors and data on drivers of deforestation. The IPCC has outlined a framework for the first two types of data that recognizes the countries' different level of capacities to assess and monitor these data (Romijn et al. 2012) and while the importance of participation of indigenous peoples and local communities in monitoring and reporting has been recognized through the UNFCCC process, it remains underdeveloped. When developing FRELs, countries can make adjustments for national circumstances they need to be founded in quality data in order to be convincing and accepted. As countries move through the REDD+ phases, they must develop reference levels and a national forest monitoring system that quantifies emission reductions. A stepwise or staged MRV framework (Herold et al. 2012) for setting forest FRELs/FRLs and for measuring REDD+ emissions reductions and GHG removals recognizes that countries should start with the capacities they have, build on their strengths, and fill the gaps as they progress through the phases of REDD+ implementation. The process for technical assessments of RELs/RLs was agreed at CoP 19 in Warsaw as a part of the Warsaw Framework for REDD+.

Research gaps

- *Data on drivers and activities* are essential for developing effective policies and measures that tackle the main causes of deforestation and forest degradation. Countries and demonstration projects often lack sufficient data on deforestation and degradation drivers, and this leads to ineffectual demonstration activities (Brockhaus et al. 2013). More data on the emission reduction potential of alternative land uses are required. The lack of country and region specific data poses a serious limitation to converting area estimates of land-use change to emissions numbers and carbon stock change estimates for most tropical countries. Thus, we are far from being able to make sufficiently accurate estimates of emissions from sources and removals by sinks in national REDD+ programs and REDD+ demonstration activities and we continue to experience difficulties with integrating considerations of atmospheric impact into land-use planning.
- Korhonen-Kurki et al. (2013) and Hosonuma et al. (2012) found that data on key elements of REDD+ – deforestation and forest degradation rates, mitigation potentials, aspects of benefit distribution, and safeguards – even if available, were often scattered and not translated into relevant and comprehensive information for the design of national REDD+. Thus, *data generation needs to be structured*; more and better evidence, information, guidelines and tools are needed to inform decision-makers.
- Many underlying aspects of land use, carbon and climate effects are far from being understood, notably the role of deep soil carbon in total global



carbon assessments (Rumpel and Kögel-Knabner 2011; Harper and Tibbett 2013); and the direct non carbon-mediated climate effects of vegetation change that affects albedo, wind speed and other climate parameters (Lee and Berbery 2012). More basic research will be required to adjust baselines beyond the current agreed understanding and help to identify new avenues for mitigation and adaptation.

- Data on carbon stocks and emissions. The lack of country and region specific data poses a serious limitation to converting area estimates of deforestation and forest degradation to emissions numbers and carbon stock change estimates for most tropical countries (Verchot et al. 2012). Thus we not in a position to make accurate and precise estimates of emissions from sources and removals by sinks in national REDD+ programs and REDD+ demonstration activities. The constraints can be overcome if coordinated, targeted investments are made and productive partnerships are developed between the technical services in REDD+ host countries, intergovernmental agencies and advanced research institutes in developed countries.
- For Asia, in particular, we need to address the question of how to deal with the region's peatlands and mangroves. We do not have solid and reliable wetland carbon maps, for example, and we have limited understanding of how best to manage, preserve and restore these wetlands and the possible effects on a variety of factors that range from local livelihoods to the global carbon balance.
- Oil palm is a major regional export product generating high revenues. In GE efforts, we must our base fuel consumption on renewables, differentiated and adaptive land-use options, which need to be identified to protect vulnerable peatlands, while allowing for bio-based palm oil products to make a meaningful contribution to GE/LEDS.

Stakeholder roles

- Governments need to step up their efforts in forest measuring, reporting and verifying, attempting to move as quickly as possible towards the final phase in the stepwise approach to MRV, as part of the stepwise move into REDD+ phase III, and as a prerequisite to qualify for REDD+ payments. The UNFCCC process has defined international requirements for MRV so that carbon impacts of the sum of the REDD+ activities within a country can be captured. Countries may choose to *include information on drivers of deforestation and on the*



effectiveness of different programs and policies in their national forest monitoring systems (UNFCCC decision 11/CP.19). These systems will be essential in providing feedback about what works and what does not work under REDD+ and deciding on the REDD+ interventions to best address the key drivers (Hosonuma et al. 2012). While addressing these international requirements, national monitoring systems should be adapted to the different needs of national implementation, so that REDD+ activities can be tracked by the multiple actors involved. This would provide the basis for, and verification of, the distribution of benefits. As many REDD+ activities may address actions and actors outside forests, monitoring should be broader than forest areas (Salvini et al. 2014).

- This includes increased efforts in capacity building. A good way of achieving this goal might be for countries to strengthen national universities and research institutes or develop new research programs and institutions in these areas. International non-government organizations such as those of the CGIAR can support countries in their efforts to develop forest reference levels and MRV systems.

- All stakeholders must develop regional commitments to protect peatlands and mangroves from short-term profit aspirations that ignore their role as important long-term ecosystem service providers (e.g. carbon storage, coastal protection and fisheries)
- All stakeholders must work together to develop clear guidance for sustainable oil palm developments.
- Forest fires and the ensuing haze are a fast-track source of atmospheric carbon and damage health and economies, and have the potential for transnational conflict. They are another regional problem that requires all-stakeholder dialogue and decisions.

Benefit-sharing

Policy needs

Benefit-sharing mechanisms are a central design aspect of REDD+ because they help to create the necessary coalitions and incentives to successfully reduce carbon emissions. However, if stakeholders do not perceive the benefit-sharing as fair, both the legitimacy of REDD+ and support for the mechanism will be weakened. Luttrell et al. (2013) analyzed national policy processes, current practices and debates in six countries, and incipient benefit-sharing arrangements in 21 subnational REDD+ initiatives. This helped to identify the rationales that have been put forward to justify how benefits should be distributed and to whom. These encompassed a range of perspectives. Some stakeholders maintain that benefit-sharing should be related to actual carbon emission reductions or to costs incurred in achieving the reduction of emissions. Others emphasize the legal right to benefit, the need to consider aspects such as poverty reduction or rewarding those with a history of protecting the forest. Each rationale affects the design of benefit-sharing mechanisms and the equity of their outcomes. Given the wide range of rationales and interests at play, the *objectives of REDD+ and benefit sharing must be clearly established and "benefit" defined* before successful benefit-sharing mechanisms can be designed. However, engagement with REDD+ policies is not merely a function of financial incentives. Research highlights the particular role of *legitimacy of decision-making institutions, consideration of context*, and shows that *attention to process* is critical.



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Research gaps

- Lessons from REDD+ have highlighted how building legitimacy requires attention to fair distributional outcomes, procedural equity and consensus on which institutions have the authority to make decisions. Equity under GE/LEDS efforts requires similar attention.

Stakeholder roles

- The multiplicity of objectives and interest groups involved in designing REDD+ benefit-sharing mechanisms makes it critical to ensure *legitimacy* of this process. Governments need to develop mechanisms to provide legal clarity; develop consensus about which institution or group of actors has the authority to make such decisions; and give attention to procedural rights such as transparency, participation, and free, prior, and informed consent (Luttrell et al. 2013). As decisions about a GE/LEDS will similarly face trade offs and associated contests for power, it is crucial that legitimacy is provided for by adequate and transparent political procedures.
- The equity issue is important at the national and the global level. While proponents often strengthen the former, countries debate the latter at international negotiations. More efforts by all stakeholders are needed to address solutions to this different focus.

Tenure

Policy needs

Lessons from REDD+ have highlighted that issues of equity and benefits are often centered on issues of land tenure. In a study of 23 subnational REDD+ initiatives in six countries, Sunderlin et al. (2014) found that on-the-ground REDD+ development was primarily hindered by *insecure tenure*. Findings at 17 REDD+ project sites (eight of which were in SE Asia: Indonesia 7, Vietnam 1) showed that more than half of the study villages are experiencing some form of tenure insecurity. Local forests in almost two-thirds of the villages are being used by a person or company outside of the village. In some villages, local people have attempted – in vain – to prevent this external use, while in others, it is actually prohibited. In more than half of the villages, compliance with local forest management rules is rated as low to moderate. Results suggested that REDD+ project proponents are making earnest efforts to

address underlying tenure issues, so this is not what is hindering progress. However, they attempt to resolve tenure issues at the local level, while tenure conditions are landscape-wide and have origins far beyond REDD+ project boundaries. An important exception to this is in Brazil, where proponents of subnational REDD+ initiatives have sought collaboration with government institutions in resolving tenure issues early on in the process (Duchelle et al. 2014). In many subnational initiatives, the current realities and the limited capacities for measuring and reporting undermine the resolution of the tenure problem (Joseph et al. 2013).

Research gaps

- We need a better understanding of conflict over tenure, compensation and grievance mechanisms. Research can support identifying the most adequate tenure arrangements that specify land and carbon ownership.
- How can conflict resolution and grievance redress mechanisms being set up in REDD+ frameworks gain legal force and be equipped to deal with many land tenure situations, such as claims by indigenous people, which must have legally enforceable court/tribunal systems in place? A good example of such a system is Australia's Native Title Tribunal, but more comparative research is needed on this topic.
- Research also needs to address how to protect legitimate rights-holders beyond village borders who depend on local forests for their livelihoods and define how they must be protected and/or compensated.

Stakeholder roles

- Sunderlin et al. (2014) have assessed the actions that REDD+ proponents have taken to resolve tenure insecurity in light of what would be required for an effective and equitable REDD+. *Tenure must be addressed at the national level*. This includes resolving tenure conflicts, data availability, pro-poor policies and legal clarity on forest carbon ownership. It includes policy harmonization across government levels, from national and local level. This *multilevel integration* will also allow harnessing economies of scale (particularly where proponents lack funds).
- Stakeholders must anticipate complications. In intractable forest tenure situations, there is need to speed up performance-based compensation mechanisms, and to set up robust conflict resolution and grievance mechanisms. This includes solutions to specific cases such as the case of Papua New

Guinea, where tenure insecurity is not an issue but the difficulty in securing changes in its use is.

- Visioning exercises that anticipate the consequences of inaction on forest tenure and that forecast where on the landscape tenure and equity problems are likely to surface when REDD+ is introduced on a wider scale, should be carried out. Processes such as participatory landscape scenario development including ecosystem services and livelihood outcomes can be particularly helpful, and become even more important with the growing complexity when moving towards promoting GE/LEDs.

Safeguards

Policy needs

Results-based financing of REDD+ is conditional on the implementation of national safeguard information systems (SIS) to address social, environmental and governance criteria that go beyond carbon. Countries are required to comply with the seven safeguards articulated in the UNFCCC Cancun Agreement, which focus on doing no harm, promoting good governance and multiple benefits, and assuring emissions integrity (UNFCCC 2011). Furthermore, jurisdictions and projects engaged with multi- and bilateral donors and third-party certifiers must consider additional standards for demonstrating good social and environmental performance, such as those of the Forest Carbon Partnership Fund (FCPF), the UN REDD Programme, the Climate, Community and Biodiversity Alliance (CCBA) and the REDD+ Social & Environmental Standards Initiative (REDD+ SES). Aside from the international requirement that SIS should be “transparent, consistent, comprehensive and equitable” and “build upon existing systems, as appropriate” (UNFCCC 2011), countries are not given much guidance on the use of appropriate indicators, data collection methods and reporting frameworks. While this supports national ownership and provides space for independent experimentation in complex country-specific contexts, it also creates uncertainties and high transaction costs if each country is “re-inventing the wheel”. The process is complicated by a lack of harmonization among the various safeguard policies and clear disconnects between REDD+ monitoring efforts at different scales. For instance, subnational jurisdictions in multiple countries are developing SIS through the REDD+ SES Initiative, which may not dovetail with national-level efforts. There is considerable variation in the capacity of countries to implement national-level SIS and monitor the social, governance and environmental impacts of REDD+,

and the costs of implementing adequate systems may be prohibitive. The challenges of harmonization, sovereignty, capacity and costs will become more apparent as the REDD+ safeguards dialogue moves from international policy discourse to action in the interpretation, implementation, monitoring and reporting of safeguards (Jagger et al. 2012).

Research gaps

- In preparation for SIS implementation, we must understand how national drivers of deforestation and degradation – and associated REDD+ policies and measures – relate to the seven UNFCCC REDD+ safeguards, and how existing institutional frameworks for countries’ compliance with, and reporting on, multiple standards and processes could feed into SIS implementation.
- As countries begin to implement SIS, we can learn from their challenges and successes in promoting policy coherence between sectors and across scales, facilitating broad stakeholder participation, using existing indicators and data, and financing SIS.
- Field-based evidence on the social and environmental impacts of pilot REDD+ programs and projects can help to inform our choice of indicators for respecting local rights, ensuring local participation and enhancing co-benefits.
- There is a tremendous opportunity to synthesize lessons from countries’ diverse experiences in engaging with multiple international standards, and connect the dots in an increasingly complex REDD+ architecture, toward implementing a safeguarded REDD+ that goes beyond “doing no harm” to deliver a host of social and environmental benefits.

Stakeholder roles

- International players such as the UNFCCC COP are asked to provide clear guidance early on to reduce interaction costs and increase harmonization between parallel processes, while preserving a space for country innovation and ownership creation.
- Countries are asked to actively contribute to the international safeguards debate, based on concrete experiences with implementing SIS, to ensure that international guidance is realistic.
- Safeguards in one policy mechanism (e.g. biodiversity in REDD+) is the main subject of other international mechanisms (e.g. Convention on Biological Diversity). Risk mitigation and guarantees are important elements of GE policies (UNEP 2014). Harmonization of various (safeguard) policies is



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crucial to avoid overlapping and contradicting legislation while REDD+ is being embedded in broader GE/LEDS efforts. Much remains to be done between international and national levels to address these issues efficiently.

General policy lessons

REDD+ offers substantial lessons for broader GE/LEDS processes in and around forests. They highlight that these types of necessary transitions are not easy or isolated from broader issues. REDD+, GE/LEDS concepts are intrinsically linked to broader decision-making processes, land-use planning, tenure and economic development processes.

As such, lessons REDD+ have highlighted the need to balance broader, long-term reforms alongside more immediate progress. The *phased approach to REDD and the stepwise approach to MRV*, including the need for more formalized learning and up-scaling, represent critical lessons for GE/LEDS.

REDD+ should clearly be seen as *part of the broader opportunities and challenges of generating 'green growth' and low emissions development in and around forests*. In forest-rich Asian countries, forest and agricultural sectors constitute a large share of greenhouse gas emissions, and a transition to a GE/LEDS will not be possible without reducing emissions from deforestation and forest degradation linked to those sectors. At the same time, the two sectors have significant potential contributions to fill the ambitions gap in emission reduction (UNEP, 2011). As forests strengthen their

resilience to climate variations and potentially low-emissions 'climate-smart' development opportunities, REDD+ policies should be integrated into broader development planning. Moreover, harnessing the considerable experience gained through REDD+ about development and decision-making in and around forests may allow GE/LEDS to avoid the same pitfalls and detours and hence speed up development processes at large.

We recognize that some of the recommendations brought forward here are two-edged – many seem to suggest a slowdown and broadening of scope. This reflects realities when implementing policies in complex, multi-stakeholder contexts. Indeed, *policy stagnation* can be a blessing because it allows countries to build capacities and proponents to take more time to resolve participation and problems such as that of tenure. However, it is also a curse because it wears down the participants in the policy process, leads to fatigue and waning interest, induces some proponents to postpone and curtail education and participation, and reduces trust in the process (e.g. villagers for many years in vain hoping to reap benefits). In contrast, and in view of proceeding climate change, there is an urgent need for action under REDD+ and GE/LEDS. On balance therefore, the benefits of faster policy clarity and progressive approaches to implementation must be accompanied by broader capacity building and policy learning towards greater inclusiveness. The phased approach to REDD+ and the stepwise approach to MRV are two examples that recognize the need for more learning and individualized approaches and they formalize this progression.

References

- Babon A and Gowae GY. 2013. *The context of REDD+ in Papua New Guinea: Drivers, agents and institutions*. Occasional Paper 89. CIFOR: Bogor, Indonesia.
- Brockhaus M and Di Gregorio M. In press. National REDD+ policy networks: From cooperation to conflict. *Ecology and Society*.
- Brockhaus M, Di Gregorio M and Mardiah S. 2013. Governing the design of national REDD+: An analysis of the power of agency. *Forest Policy and Economics* [epub ahead of print, 17 August 2013].
- De Morsella C. 2009. The Green Economy, What Does It Mean? *The Green Economy Post*. Accessed March 2014. <http://greeneconomypost.com/the-green-economy-what-does-it-mean-505.htm>.
- Duchelle AE, Cromberg M, Gebara MF, Guerra R, Melo T, Larson A, Cronkleton P, Börner J, Sills EO, Wunder S, et al. 2014. Linking forest tenure reform, environmental compliance, and incentives: Lessons from REDD++ initiatives in the Brazilian Amazon. *World Development* 55:53–67.
- Guariguata MR, Cornelius JP, Locatelli B, Forner C and Sánchez-Azofeifa GA. 2008. Mitigation needs adaptation: Tropical forestry and climate change. *Mitigation and Adaptation Strategies for Global Change* 13:793–808.
- Hamilton K, Sjardin M, Peters-Stanley M and Marcello T. 2010. *Building Bridges: State of the Voluntary Carbon Markets 2010*. Ecosystem Marketplace & Bloomberg New Energy Finance, Washington, DC.
- Harper R and Tibbett M. 2013. The hidden organic carbon in deep mineral soils. *Plant and Soil* 368:641–48.
- Herold M, Angelsen A, Verchot LV, Wijaya A and Ainembabazi JH. 2012. A stepwise framework for developing REDD+ reference levels. In Angelsen A, Brockhaus M, Sunderlin WD and Verchot LV, eds. *Analysing REDD+: Challenges and choices*. 279–99. CIFOR: Bogor, Indonesia.
- Hosonuma, N, Herold M, de Sy V, De Fries, RS, Brockhaus M, Verchot L, Angelsen A and Romijn E. 2012. An assessment of deforestation and forest degradation drivers in developing countries. *Environmental Research Letters* 7(4). doi:10.1088/1748-9326/7/4/044009
- Indrarto GB, Murharjanti P, Khatarina J, Pulungan I, Ivalerina F, Rahman J, Prana MN, Resosudarmo IAP and Muharrom E. 2012. *The context of REDD+ in Indonesia*. Working Paper 92. CIFOR: Bogor, Indonesia.
- Jagger P, Lawlor K, Brockhaus M, Gebara MF, Sonwa DJ and Resosudarmo IAP. 2012. REDD+ safeguards in national policy discourse and pilot projects. In Angelsen A, Brockhaus M, Sunderlin WD, Verchot LV eds. *Analysing REDD+: Challenges and choices*. 301–316. CIFOR: Bogor, Indonesia.
- Joseph S, Herold M, Sunderlin WD and Verchot LV. 2013. REDD+ readiness: Early insights on monitoring, reporting and verification systems of project developers. *Environmental Research Letters* 8(3). doi:10.1088/1748-9326/8/3/034038
- 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.
- Kircher M. 2012. The transition to a bio-economy: National perspectives. *Biofuels, Bioproducts and Biorefining* 6(3):240–245.
- Korhonen-Kurki K, Brockhaus M, Duchelle AE, Atmadja S, Thu Thuy P and Schofield L. 2013. Multiple levels and multiple challenges for measurement, reporting and verification of REDD+. *International Journal of the Commons* 7(2):344–66.
- Korhonen-Kurki K, Sehring J, Brockhaus M and Di Gregorio M. 2014. Enabling factors for establishing REDD+ in a context of weak governance. *Climate Policy* 14:167–86.
- Lee S-J and Berbery EH. 2012. Land cover change effects on the climate of the La Plata Basin. *Journal of Hydrometeorology* 13:84–102.
- Locatelli B. 2011. Synergies between adaptation and mitigation in a nutshell. COBAM Brief. CIFOR: Bogor, Indonesia.
- Locatelli B, Evans V, Wardell A, Andrade A and Vignola R. 2011. Forests and climate change in Latin America: Linking adaptation and mitigation. *Forests* 2(1):431–50.
- Luttrell C, Loft L, Fernanda Gebara M, Kweka D, Brockhaus M, Angelsen A and Sunderlin WD. 2013. Who should benefit from REDD+? Rationales and realities. *Ecology and Society* 18(4):52.
- Page SE, Rieley JO and Banks CJ. 2011. Global and regional importance of the tropical peatland carbon pool. *Global Change Biology* 17:798–818.
- Paudel NS, Khatri DB, Khanal DR and Karki R. 2013. The context of REDD+ in Nepal: Drivers, agents, and institutions. Occasional Paper 81. CIFOR: Bogor, Indonesia.
- Pham TT, Moeliono M, Nguyen TH, Nguyen HT and Vu TH. 2012. The context of REDD+ in Vietnam: Drivers, agents and institutions. Occasional Paper 75. CIFOR: Bogor, Indonesia.
- Phelps, J. In Press. Forest carbon, biodiversity and the promise of a green economy. In Gasparatos A, and Willis K, eds. *Biodiversity in the Green Economy*. Routledge: London.
- Phelps J, Webb EL and Koh LP. 2011. Risky business: an uncertain future for biodiversity conservation

- finance through REDD+. *Conservation Letters* 4(2):88–94.
- Pramova E, Locatelli B, Brockhaus M and Fohlmeister S. 2012a. Ecosystem services in the national adaptation programmes of action. *Climate Policy* 12(4):1–17.
- Pramova E, Locatelli B, Djoudi H and Somorin O. 2012b. Forests and trees for social adaptation to climate variability and change. *WIREs Climate Change* 3:581–96.
- Romijn JE, Ainembabazi JH, Wijaya A, Herold M, Angelsen A, Verchot L and Murdiyarso D. 2013. Exploring different forest definitions and their impact on developing REDD+ reference emission levels: A case study for Indonesia. *Environmental Science and Policy* 33:246–259.
- Rumpel C and Kögel-Knabner I. 2011. Deep soil organic matter—a key but poorly understood component of terrestrial C cycle. *Plant and Soil* 338:143–58.
- Salvini G, Herold M, De Sy V, Kissinger G, Brockhaus M and Skutsch M. In press. How countries link REDD+ interventions to drivers in their readiness plans: Implications for monitoring systems. *Environmental Research Letters*.
- Seymour F and Angelsen, A. 2012. Summary and conclusions. REDD+ without regrets. In Angelsen A, Brockhaus M, Sunderlin WD, Verchot LV eds. *Analysing REDD+: Challenges and choices*. 317–334. CIFOR: Bogor, Indonesia.
- Sukhadev P, Prahbu R, Kumar P, Bassi A, Patwa-Shah W, Enters T, Labbate G and Greenwalt J. 2012. REDD+ and a green economy: Opportunities for a mutually supportive relationship. UN-REDD+ Programme Policy Brief 1. http://www.theredddesk.org/sites/default/files/resources/pdf/2012/unep_policy_brief.pdf.
- Sunderlin WD, Ekaputri AD, Sills EO, Duchelle AE, Kweka D, Diprose R, Doggart N, Ball S, Lima R, Enright A, et al. 2014. *The challenge of establishing REDD+ on the ground: Insights from 23 subnational initiatives in six countries*. CIFOR Occasional Paper. CIFOR: Bogor, Indonesia.
- Sunderlin WD, Larson AM, Duchelle AE, Resosudarmo IAP, Huynh TB, 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.
- Sunderlin WD and Sills EO. 2012. REDD+ projects as a hybrid of old and new forest conservation approaches. In Angelsen A, Brockhaus M, Sunderlin WD, Verchot LV eds. *Analysing REDD+: Challenges and choices*. 177–92. CIFOR: Bogor, Indonesia.
- UN-DESA, 2012. *A guidebook to the green economy Issue 1: Green economy, green growth, and low-carbon development – History, definitions and a guide to recent publications*.
- UNEP. 2014. *Building natural capital: How REDD+ can support a green economy*. Report of the International Resource Panel, United Nations Environment Programme, Nairobi, Kenya. <http://www.un-redd.org/IRPReport/tabid/132330/Default.aspx>.
- UNEP. 2011. *Towards a green economy: Pathways to sustainable development and poverty eradication*. UNEP, Geneva.
- UNEP. 2010. *Green economy developing countries success stories*. UNEP, Geneva.
- UNFCCC. 2011. *The Cancun agreements: outcome of the work of the ad hoc working group on long-term cooperation under the Convention*. Decision 1/CP.16. Report of the Conference of Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010. FCC/CP/2010/7 Add.1. United Nations Framework Convention on Climate Change, Bonn, Germany.
- Verchot LV, Anitha K, Romijn E, Herold M and Hergoualc'h K. 2012. *Emissions factors: Converting land use change to CO₂ estimates*. 261–278 In Angelsen A, Brockhaus M, Sunderlin WD and Verchot LV, eds. *Analysing REDD+: Challenges and choices*. CIFOR, Bogor, Indonesia.
- Watson C, Brickell E, McFarland W and McNeely, J. 2013. *Integrating REDD+ into a green economy transition: Opportunities and challenges*. Overseas Development Institute, and International Union for the Conservation of Nature, London, UK. Online. <http://www.odi.org.uk/publications/7501-redd-green-economy-transition-forest-land-use-growth>



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