

# REDD+ at a critical juncture: assessing the limits of polycentric governance for achieving climate change mitigation

W. D. SUNDERLIN<sup>a</sup>, E.O. SILLS<sup>b</sup>, A.E. DUCHELLE<sup>c</sup>, A.D. EKAPUTRI<sup>d</sup>, D. KWEKA<sup>e</sup>, M.A. TONIOLO<sup>f</sup>, S. BALL<sup>g</sup>, N. DOGGART<sup>h</sup>, C.D. PRATAMA<sup>i</sup>, J.T. PADILLA<sup>j</sup>, A. ENRIGHT<sup>k</sup> and R.M. OTSYINA<sup>l</sup>

<sup>a</sup>Principal Scientist, Center for International Forestry Research, Jalan CIFOR, Situ Gede, Bogor Barat 16115, Indonesia

<sup>b</sup>Professor of Forestry, North Carolina State University, Department of Forestry and Environmental Resources, Raleigh, North Carolina 27695-8008, USA

<sup>c</sup>Scientist, Center for International Forestry Research, Rua do Russel 450/601, CEP 22210-010, Rio de Janeiro, Brazil

<sup>d</sup>Researcher, Indonesian Institute of Sciences, Widya Graha LIPI Lt. X, Jl. Jend. Gatot Subroto 10, South Jakarta, Indonesia

<sup>e</sup>Field Research Supervisor, Center for International Forestry Research, P.O. Box 13267 Dar es Salaam, Tanzania

<sup>f</sup>Professor, Institute of Research and Development, Vale do Paraiba University, Avenida Shishima Hifumi, 2911 – Urbanova, CEP:12244-000, São José dos Campos, São Paulo, Brazil

<sup>g</sup>Emeritus Technical Advisor, Mpingo Conservation & Development Initiative, PO Box 49, Kilwa Masoko, Tanzania

<sup>h</sup>Technical Advisor, Tanzania Forest Conservation Group, P.O. Box 23410, Dar es Salaam, Tanzania

<sup>i</sup>Senior Research Officer, Center for International Forestry Research, Jalan CIFOR, Situ Gede, Bogor Barat 16115, Indonesia

<sup>j</sup>REDD National Fund Advisor, Forest Conservation National Program – Ministry of Environment, Av. Dos de Mayo 1565 – 5th Floor – San Isidro, Lima, Peru

<sup>k</sup>Policy Manager, Climate Change, WWF Australia, Level 1, 1 Smail Street, Ultimo, Sydney, New South Wales, Australia 2007

<sup>l</sup>TaTEDO, P.O. Box 60023, Dar Es Salaam, Tanzania

Email: w.sunderlin@cgiar.org

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## SUMMARY

In 2007, REDD+ emerged as the leading option for early climate change mitigation. In 2010, after the failure of negotiations at the Copenhagen COP, observers cited REDD+ projects and other subnational initiatives as examples of the polycentric governance (based on multiple independent actors operating at multiple levels) necessary to move climate change mitigation forward in the absence of a binding international agreement. This paper examines the ways subnational initiatives can and cannot play this role, based on the experiences and opinions of 23 REDD+ proponent organizations in six countries. These proponents have tested various approaches to climate change mitigation, demonstrating the value of a polycentric approach for promoting innovation and learning. However, from our sample, six initiatives have closed, four no longer label themselves as REDD+, only four are selling carbon credits, and less than half view conditional incentives (initially the core innovation of REDD+) as their most important intervention. While polycentric governance in REDD+ has benefits, it will not enable implementation of REDD+ as originally conceived unless accompanied by a binding international agreement.

Keywords: deforestation, climate, REDD+, finance, governance.

## La REDD+ à cette heure cruciale: analyse des limites de la gouvernance polycentrique pour mener à bien l'atténuation du changement climatique

W. D. SUNDERLIN, E.O. SILLS, A.E. DUCHELLE, A.D. EKAPUTRI, D. KWEKA, M.A. TONIOLO, S. BALL, N. DOGGART, C.D. PRATAMA, J.T. PADILLA, A. ENRIGHT et R.M. OTSYINA

En 2007, la REDD+ est apparue comme la solution prépondérante en matière d'atténuation précoce du changement climatique. En 2010, après l'échec des négociations à la COP de Copenhague, les observateurs ont mis en avant les projets et les autres initiatives infranationales de REDD+ en tant qu'exemples de la gouvernance polycentrique (reposant sur plusieurs acteurs indépendants intervenant à des niveaux différents) nécessaire pour faire avancer l'atténuation du changement climatique en l'absence d'accord international contraignant. Le présent article examine les cas dans lesquels les initiatives infranationales peuvent effectivement jouer ce rôle et ceux dans lesquels elles ne le peuvent pas, à partir de l'analyse d'expériences et d'opinions collectées auprès de 23 organisations promotrices d'initiatives REDD+ dans six pays. L'étude des diverses approches de l'atténuation du changement climatique testées par ces promoteurs de la REDD+ met en évidence l'intérêt d'une approche polycentrique de la promotion de l'innovation et de l'apprentissage. Cependant, parmi les initiatives de l'échantillon étudié, six n'existent plus, quatre ne se considèrent plus comme relevant du mécanisme REDD+, quatre seulement commercialisent des crédits carbone, et moins de la moitié considèrent les incitations conditionnelles (l'innovation centrale de la REDD+ au départ) comme leur intervention la plus importante. Si la gouvernance polycentrique de la REDD+ comporte des avantages, elle ne permettra pas de mettre en œuvre le mécanisme comme il avait été conçu à l'origine si elle n'est pas accompagnée d'un accord international contraignant.

## REDD+ en un momento crítico: una evaluación de los límites de la gobernanza policéntrica para lograr la mitigación del cambio climático

W. D. SUNDERLIN, E.O. SILLS, A.E. DUCHELLE, A.D. EKAPUTRI, D. KWEKA, M.A. TONIOLO, S. BALL, N. DOGGART, C.D. PRATAMA, J.T. PADILLA, A. ENRIGHT y R.M. OTSYINA

En 2007, REDD+ surgió como la principal opción para la mitigación temprana del cambio climático. En 2010, tras el fracaso de las negociaciones en la Cumbre de Copenhague, los observadores citaron los proyectos de REDD+ y otras iniciativas subnacionales como ejemplos de la gobernanza policéntrica (basada en múltiples actores independientes que actúan en distintos niveles) necesaria para que progrese la mitigación del cambio climático, en ausencia de un acuerdo internacional vinculante. El presente documento examina las formas en las que las iniciativas subnacionales pueden y no pueden desempeñar este papel, sobre la base de las experiencias y opiniones recopiladas de 23 organizaciones que participan de REDD+ en seis países. Dichos actores han probado diversos enfoques para la mitigación del cambio climático y han demostrado el valor que adquiere el enfoque policéntrico en la promoción de la innovación y el aprendizaje. Sin embargo, de nuestra muestra, seis iniciativas han cerrado, cuatro ya no son catalogadas como REDD+, solo cuatro venden créditos de carbono y menos de la mitad consideran a los incentivos condicionados (originalmente, la principal innovación de REDD+) como su intervención más importante. Si bien la gobernanza policéntrica en los mecanismos de REDD+ plantea beneficios, esta no permitirá la implementación de REDD+ tal como fue concebida al principio; a menos que este mecanismo vaya acompañado de un acuerdo internacional vinculante.

### INTRODUCTION

The forest sector is a critical problem as well as a potentially key part of the solution to global climate change. In the period 2000-2009, 12% of total GHG emissions came from forests and other land uses (IPCC 2014). Since it was consolidated at the Bali COP in 2007, REDD+ has been embraced as the leading approach for making early and large cuts to GHG emissions. The term “REDD+” refers broadly to efforts to reduce emissions from deforestation and forest degradation and enhance forest carbon stocks, and more narrowly to results-based incentives to achieve forest-based climate change mitigation, which was “a core idea when REDD+ was first launched” (Angelsen *et al.* 2012: 381). Another core idea of REDD+ has been to generate a large stream of funding to pay for the opportunity costs of forest conservation, with estimates of requirements ranging from US\$12.5 billion to US\$60 billion annually (Morris and Stevens 2011, Angelsen 2013). Public sector funding was to be used initially and eventually replaced by a robust global trade in forest carbon credits, through both voluntary and compliance markets. The key mechanism in REDD+ was to have been performance-based payments to custodians of forests on condition that they successfully (proven through an elaborate system of Measurement, Reporting and Verification) protect and enhance the carbon-sequestering capacity of forests.

Since 2007, there have been reasons for optimism and pessimism on the REDD+ front. On the positive side, more than \$8.7 billion in public and private sector funding has been committed to getting REDD+ underway in the period 2006-2014 (Norman and Nakhouda 2014). REDD+ readiness activities (crafting of policies and practices at the national and subnational level, establishment of MRV systems, and initiation of pilot initiatives) have been launched in 47 countries (Simonet *et al.* 2014). This represents rapid expansion, compared to 26 countries with readiness activities in 2009 (Cerbu *et al.* 2011). Forest carbon initiatives now number more than 300 worldwide (Simonet *et al.* 2014). REDD+ has received substantial

attention in all UNFCCC COPs since Bali, although there was not any significant progress in a succession of COPs (Copenhagen, Cancun, Durban). However, the Warsaw COP in 2013 made progress in the areas of procedural guidance for aligning REDD+ strategies with drivers of deforestation and degradation, establishing national reference levels and implementing systems for measurement, reporting and verification, and safeguard information systems.

On the negative side, funding for REDD+ is small in comparison to what is needed for it to function as originally intended. Although public sector funding was meant to serve merely as a catalyst, it currently accounts for 90% of all funding for REDD+, and the pace of new pledges slowed after 2010 (Norman and Nakhouda 2014). Confidence in carbon finance as a future source of funding for REDD+ has been undermined by low carbon prices (Norman and Nakhouda 2014). The voluntary and compliance markets expected to be the engine of REDD+ have failed to materialize. This results mainly from the failure to create a binding international climate change agreement, which would in turn establish the regulatory framework necessary for the emergence of a robust market in forest carbon credits. Experts in the carbon market believe market growth ultimately depends on regulatory drivers (Peters-Stanley *et al.* 2013). Moreover, the development of MRV capacity is very uneven among countries and not yet adequate to serve the needs of REDD+ in many countries (Romijn *et al.* 2012).

While a global agreement seems essential for managing a global public good (the climate), some observers have argued that such an agreement is not necessary and not even the most desirable first step. The essence of the argument is as follows. Top-down, centralized governance in climate change cannot work because “single policies adopted only at a global scale are unlikely to generate sufficient trust among citizens and firms so that collective action can take place in a comprehensive and transparent manner that will effectively reduce global warming” (Ostrom 2009). Relatedly, “free riding” is a key obstacle to global agreement (Esty and Moffa 2012).

Moreover, global environmental managerialism is at odds with a plural legal and political order (Boyd 2011) and there is exaggerated faith in the international legal system to solve “this massive collective action problem” (Boyd 2011: 464). Goldin (2013) asserts that failed international governance (generally speaking) results from the fact that international institutions (the United Nations, International Monetary Fund, World Bank) are archaic and ill-suited to the tasks of the 21<sup>st</sup> century. Cole (2011) explains there are four fundamental flaws in the Kyoto Protocol making it difficult for global governance to succeed in climate change: (1) lack of stringent emission reduction targets; (2) hot air or inauthentic emissions reductions; (3) reliance on inherently unreliable baselines; and (4) high costs of emissions trading.

The leading alternative to global governance of the climate is a polycentric approach. The argument is that approaches “that mix scales (such as local/ national or national/global), mechanisms (such as subsidies, tax credits, and mandates), and actors (such as government regulators, business stakeholders, and members of civil society) – can foster equity, inclusivity, information, accountability, organizational multiplicity, and adaptability that result in the resolution of climate and energy related problems” (Sovacool 2011: 3832). Ostrom (2009: abstract) says polycentric governance is an alternative to centralized international climate change governance because “efforts to reduce greenhouse gas emissions are a collective action problem that is best addressed as multiple scales and levels.” Cole (2011) takes the argument a step further, claiming inherent affinity between polycentric governance and REDD+. He claims “REDD, far more than the Kyoto Protocol, recognizes the importance of nested institutions at all levels of government, responsive to differential national circumstances, levels of development (e.g. per-capita GDP), local communities (including indigenous peoples), and other stakeholders” (Cole 2011: 411). Polycentric governance is said to enhance opportunities for climate change mitigation because it encourages experimentation across different levels and units of government (Ostrom 2009, Cole 2011, Cole 2015). Ostrom (2009) says this experimental approach can produce methods for assessing the costs and benefits of particular strategies. She adds that producing strong commitment and responsibility for reducing emissions is more effectively undertaken through “small- to medium-scale governance units that are linked together through information networks and monitoring at all levels” (Ostrom 2009: abstract). Andonova *et al.* (2009) claim that, in the climate change arena, subnational authorities are often out ahead of central governments, and that in the private sphere, innovative policies and technologies have been produced by both NGOs and corporations.

This paper addresses the broad question: Does the operation of subnational REDD+ initiatives to date support the view that polycentric governance can be an alternative to centralized international climate change governance? Specifically, we assess the state of a sample of sub-national REDD+ initiatives five years after the Bali Road Map explicitly called for such demonstration projects. We base our assessment on interviews conducted with representatives of 23 REDD+

proponent organizations (defined as the organization responsible for implementing a specific subnational initiative) in six countries. In making this assessment, we address three research questions:

1. How are REDD+ subnational initiatives functioning without an international agreement?
2. What do proponents of subnational REDD+ initiatives perceive as their main challenges?
3. How have the proponents responded to these challenges?

The first question assesses whether REDD+ subnational initiatives are showing signs of viability under polycentric governance. The second question aims to understand the challenges of getting REDD+ off the ground from the point of view of representatives of REDD+ proponent organizations. The third question enables us to see what proponents have been able to do to surmount challenges within the parameters of polycentric governance. On the basis of these findings, we give our view on what has been accomplished and prospects for fulfilling REDD+ goals through polycentric governance.

The paper is composed of four subsequent parts including methods, results, discussion, and conclusions focused on policy recommendations.

## SAMPLE AND METHODS

This paper is based on research conducted by the Global Comparative Study on REDD+ (GCS), Module 2 on REDD+ subnational initiatives, of the Center for International Forestry Research (CIFOR). GCS is evaluating the performance of REDD+ on the basis of the 3E+ criteria (effectiveness, efficiency, equity, and various co-benefits such as livelihood enhancement, tenure security, and biodiversity protection) (Angelsen *et al.* 2009). Module 2 is conducting its evaluation of the 3E+ criteria through a counter-factual before-after/control-intervention (BACI) approach (Jagger *et al.* 2011).

Module 2 is conducting its research through collaboration with 23 subnational initiatives in six countries (Brazil, Peru, Cameroon, Tanzania, Indonesia, and Vietnam) (Table 1). The 23 collaborating subnational initiatives include proponents that are government agencies or private organizations (either non-profit or for-profit), are either at the jurisdictional scale (encompassing a government administrative unit at the district level or higher) or the project scale (not developed as part of a government administrative unit). The initiatives obtain core funding from various sources (national REDD+ funds, private foundations, the proponent organization, bilateral development aid, private banks) and range widely in area from country-sized (Acre, roughly the area of Bangladesh) to very small (Centre pour l’Environnement et le Développement [CED], encompassing just two villages).

The sample contains four of the most important countries in the world in terms of numbers of REDD+ subnational initiatives (Brazil, Indonesia, Peru and Tanzania). The 23 initiatives in the sample are a slice of the sites in the six countries. Although few in number they encompass roughly half the

TABLE 1 *Subnational REDD+ initiatives in study and their key characteristics*

Country	Initiative name	Abbreviated name	Type of proponent	Approach	Area of project (km <sup>2</sup> )
Brazil	Acre State System of Incentives for Environmental Services (SISA)	Acre	Government	Jurisdictional (state)	157 490
Brazil	Bolsa Floresta Program	Bolsa Floresta	Private non-profit	Project	105 371
Brazil	Cotriguaçu Sempre Verde	Cotriguaçu	Private non-profit - government	Jurisdictional (municipality)	9 123
Brazil	The Jari/Amapá REDD+ Project	Jari/Amapá	Private for-profit	Project	660
Brazil	Green Development in the Amazon Region (São Félix do Xingu)	SFX	Private non-profit - government	Jurisdictional (municipality)	80 441
Brazil	Sustainable Settlements in the Amazon	Transamazon	Private non-profit	Project	260
Peru	REDD Project in Brazil Nut Concessions in Madre de Dios, Peru	Madre de Dios	Private for-profit	Project	3 088
Peru	Valuation of Environmental Services in Managed Forests of Seven Native Communities in Ucayali, Peru	Ucayali	Private non-profit	Project	1 270
Cameroon	Mount Cameroon REDD Project	Mt. Cameroon	Public bi-lateral	Project	611
Cameroon	Payment for Ecosystem Services (PES) in Cameroon South and East Region	SE Cameroon	Private non-profit	Project	28
Tanzania	Building REDD Readiness in The Masito Ugalla Ecosystem Pilot Area in Support of Tanzania's National REDD Strategy	Kigoma	Private non-profit	Project	910
Tanzania	HIMA – Piloting REDD in Zanzibar, Tanzania Through Community Forest Management	Zanzibar	Private non-profit	Project	828
Tanzania	Making REDD Work for Communities and Forest Conservation in Tanzania	Kilosa	Private non-profit	Project	1 850
Tanzania	Making REDD Work for Communities and Forest Conservation in Tanzania	Lindi	Private non-profit	Project	661
Tanzania	The Mpingo Conservation And Development Initiative – Combining PFM, REDD+ and FSC certification in South-Eastern Tanzania	Mpingo	Private non-profit	Project	1 890
Tanzania	Community-based REDD Mechanisms for Sustainable Forest Management in Semi-Arid Areas	Shinyanga	Private non-profit	Project	399

*(Continued)*

TABLE 1 (Continued)

Country	Initiative name	Abbreviated name	Type of proponent	Approach	Area of project (km <sup>2</sup> )
Indonesia	Kalimantan Forests and Climate Partnership (KFCP)	KFCP	Government to government partnership	Project	1 200
Indonesia	Katingan Peatland Restoration and Conservation Project	Katingan	Private for-profit	Project	1 083
Indonesia	Ketapang Community Carbon Pools	KCCP	Private non-profit	Project	144
Indonesia	The Rimba Raya Biodiversity Reserve Project	Rimba Raya	Private for-profit	Project	650
Indonesia	The Nature Conservancy within Berau Forest Carbon Program	TNC within BFCP	Private non-profit	Jurisdictional (district)	22 000
Indonesia	Reducing Carbon Emissions from Deforestation in the Ulu Masen Ecosystem	Ulu Masen	Government	Jurisdictional (multi-district)	7 500
Vietnam	Cat Tien Landscape: Pro-Poor REDD Project	Cat Tien	Private non-profit	Jurisdictional (district)	669

area of subnational REDD+ in 2014 and are a “reasonable if imperfect representation of the wider universe of subnational REDD+” (Sunderlin *et al.* 2014a: 14-15). The 23 initiatives were chosen largely on the basis of compatibility with the BACI (before-after-control-intervention) research design; specifically, they had defined their intervention areas but not yet offered conditional incentives at the time of the baseline household survey. Thus, the sample does not reflect any particular bias in terms of the type of initiative or site characteristics (Sunderlin *et al.* 2014a). Twenty-two of the 23 initiatives were selected into the study sample on the basis of the following criteria: (1) aiming to reduce net carbon emissions by reducing deforestation/degradation or implementing forest conservation/restoration/management; (2) activities were to be carried out in a quantifiable manner, with the intention of measuring, reporting, and/or transacting reductions in forest carbon emissions or increases in carbon stock; (3) had defined site boundaries and villages to be targeted by the intervention before the beginning of our field research; (4) REDD+ incentives were not scheduled to begin until after our field work began, assuring a risk-free period in which to collect the ‘before’ data; and (5) REDD+ incentives had a reasonable chance of being implemented and maintained in the subsequent 1.5 years. One of the initiatives, Bolsa Floresta in Brazil, was included in our sample even though it had already been underway for several years and therefore did not meet the fourth criterion that REDD+ incentives had not yet been introduced. We decided to include Bolsa Floresta to learn from their longer experience with REDD+.

Ideally an assessment of the effectiveness of polycentric governance for achieving REDD+ subnational outcomes would be based on observation of the implementation of REDD+ before and after the introduction of governance regimes (e.g. polycentric, or centralized international). As

this is not possible, we rely on a second-best approach: a survey of representatives of proponent organizations, with a focus on eliciting their perceptions of the challenges they face and how they have acted to address the challenges. The strength of this approach is its reliance on the perceptions of these representatives. Proponents are among the lead actors in the system of polycentric governance.

Most of the data in this paper were produced through a December 2012 to June 2013 survey on the challenges, barriers, and opportunities for moving forward experienced by proponents of subnational REDD+ initiatives. The survey aimed to understand the challenges and barriers to implementation of REDD+ and was not (at the time) designed to address the questions in this paper about polycentric governance. We realized retrospectively that the questions in the survey lend themselves well to understanding the broad suite of difficulties, opportunities, and decisions made by proponents under a system of polycentric governance. The survey form includes both closed-option and open-ended questions on a range of topics. The respondents included anywhere from one to five representatives of the proponent organization.

Here we describe the survey questions reported in this paper and put them in context.

- One question asked: “What do you believe is the percentage chance that you will continue to function as a REDD+ initiative in 2015?” This was important for eliciting views not just on the degree of challenge experienced, but also on the extent of planned adherence to the REDD+ model.
- Another question was prefaced by reading out loud and defining a list of interventions commonly implemented in REDD+ subnational initiatives. These interventions are: restrictions on forest access and conversion, forest

enhancement, non-conditional livelihood enhancement, conditional livelihood enhancement, environmental education and tenure clarification. The interviewer then asked whether each specific intervention had been or would be implemented at the site. This information enables us to know whether the initiative would be implementing conditional livelihood enhancements (i.e. conditional incentives).

- A question on interventions asked: “Among the interventions that have begun or are planned, which is potentially the most important for effectively reducing deforestation and forest degradation at your site?” This makes it possible to rank the importance of conditional livelihood enhancements.
- To identify and rank the main challenges faced, the interviewer read out loud a list of 62 possible factors that pose a challenge in implementing REDD+. The 62 factors covered the gamut of possible difficulties in implementing REDD+ in the following categories: political economy; policies of all kinds (at international, national, local levels); governance issues (including stakeholder engagement, tenure, conflict, benefit sharing, illegal practices, corruption, capacity), economy (e.g. weak forest carbon market, competitiveness of REDD+ with other land uses), technical expertise (e.g. MRV, certification), and issues internal to the proponent organizations (e.g. organizational and technical capacity, funding). The interviewer then asked the respondents to rate the level of difficulty posed by each of the 62 factors in terms of the following scale: 1 = none, 2 = minor, 3 = moderate, 4 = large and 5 = overwhelming. The aggregated data (23 organizations multiplied by 62 factors) enabled us to assign a numerical rank to each of the factors from most to least challenging. The list of 62 factors was composed on the basis of our informal understanding of challenges encountered by proponents, as well as by literature on ‘REDD+ on the ground.’ To ensure this did not close off options, we asked all respondents to name other factors not in our list, and we asked them to rate those on the same scale.
- The respondents were asked to state in what year forest conservation activities began at the site and (if applicable) what kinds of interventions were employed prior to REDD+. These questions enabled us to understand the local pre-history of REDD+ including whether the initiative was essentially a continuation of a pre-existing project.

Most of the data reported are from this proponent challenges survey, supplemented with insights from a book about the 23 initiatives in which the challenges facing proponents is a prominent theme (Sills *et al.* 2014), as well as other surveys about tenure and interventions in the 23 sites.

## RESULTS

The original idea of REDD+ was to provide positive incentives from global beneficiaries to local forest managers – an idea which seems to require a global agreement before it can move ahead. In the last seven years, hundreds of REDD+ initiatives

have been launched – so we ask if it is really possible to put REDD+ in place on the ground without a global agreement.

*Question 1: How is REDD+ functioning without an international agreement?*

### **Most of the 23 initiatives are still operating but not yet selling credits**

Of the 23 initiatives, 17 are currently operating. Four have begun to sell forest carbon credits (Bolsa Floresta and Jari/Amapá in Brazil; Madre de Díos in Peru; Rimba Raya in Indonesia) and ten intend to eventually sell forest carbon credits (Acre, Ucayali, Mt. Cameroon, SE Cameroon, Kilosa, Lindi, Mpingo, Katingan, KCCP, and TNC within BFCP) (Table 2). Ten sites have introduced conditional rewards (most on a pilot/experimental basis) that are not tied to forest credits.

### **Some have ceased operation**

Of the 23 initiatives, six have ceased operation. These are: Kigoma, Zanzibar, and Shinyanga in Tanzania; KFCP and Ulu Masen in Indonesia; and Cat Tien in Vietnam.

In Tanzania, the Kigoma, Zanzibar, and Shinyanga initiatives all had seed funding from the Government of Norway and were unable to sell forest carbon credits before this period of funding expired. The Jane Goodall Institute (proponent of Kigoma) transferred responsibility for its initiative to JUWAMMA, a local community organization. The chance is low that the initiative will carry forward because of a lack of expertise and a major tenure issue. Before its funding expired, CARE (the proponent of the Zanzibar initiative) encountered major difficulties – among them: low carbon density of the targeted forests; weak tenure arrangements; and local perception that the proposed benefit sharing arrangements were unfair. TaTEDO (proponent of the Shinyanga initiative), like CARE, was challenged by the low carbon density of its forests. In addition, it faced high opportunity costs which brought into question the economic viability of selling forest carbon credits, and community suspicion of the initiative.

Ulu Masen ceased operating mainly because Governor Irwandi Yusuf of Aceh Province, who had pioneered this initiative, was replaced by a governor who is not as supportive of REDD+. But there was a major concurrent challenge that would have made it difficult for Ulu Masen to get off the ground. There was low public acceptance of REDD+ because of local preference by some for oil palm and mining income. The skepticism toward REDD+ was amplified by lack of REDD+ benefits flowing to villages.

A 2010 study by SNV (proponent of the Cat Tien initiative) showed that project implementation would be unviable because of high opportunity costs from competing land uses, particularly rubber plantations, which are a key priority for the provincial Lam Dong government. Other important challenges included unclear tenure, and how to link REDD+ payments to measured and verifiable emission reductions.

TABLE 2 Operational status of subnational REDD+ initiatives in the study

Country	Initiative	Initiative currently operating?	Using "REDD+" label?	Selling REDD+ credits as of 2014?	Intended or intends to sell REDD+ credits?
Brazil	Acre	Yes	Yes	No	Yes
	Bolsa Floresta	Yes	Yes	Yes	Yes
	Cotriguaçu	Yes	No	No	No
	Jari/Amapá	Yes	Yes	Yes	Yes
	SFX	Yes	No	No	No
	Transamazon	Yes	Yes	No	No
Peru	Madre de Dios	Yes	Yes	Yes	Yes
	Ucayali	Yes	Yes	No	Yes
Cameroon	Mt. Cameroon	Yes	No	No	Yes
	SE Cameroon	Yes	No	No	Yes
Tanzania	Kigoma	No	Yes	No	Yes
	Zanzibar	No	Yes	No	Yes
	Kilosa	Yes	Yes	No	Yes
	Lindi	Yes	Yes	No	Yes
	Mpingo	Yes	Yes	No	Yes
	Shinyanga	No	Yes	No	Yes
Indonesia	KFCP	No	Yes	No	No
	Katingan	Yes	Yes	No	Yes
	KCCP	Yes	Yes	No	Yes
	Rimba Raya	Yes	Yes	Yes	Yes
	TNC within BFCP	Yes	Yes	No	Yes
	Ulu Masen	No	Yes	No	Yes
Vietnam	Cat Tien	No	Yes	No	No

### Some are abandoning the REDD+ label

Of the 17 initiatives still operating, four have decided not to call themselves REDD+ initiatives. These are Cotriguaçu and São Félix do Xingu in Brazil, and Mt. Cameroon and SE Cameroon in Cameroon. It is important to understand the reasons for this distancing from the concept of REDD+.

Motivated by national or local opposition to the commodification and trade of forest carbon and/or by the absence of a viable for carbon market, the proponents of Cotriguaçu and São Félix do Xingu have decided to place emphasis on non-conditional support for alternative livelihoods, and are steering clear from the idea of performance-based conditional livelihood incentives. In most cases this involves moving out of REDD+ and into low carbon development. The representatives of the Cotriguaçu and São Félix do Xingu initiatives in Brazil explained they had broadened their initial project approaches to focus on jurisdictional models for green development. In Brazil, the acronym REDD+ is strongly associated with the carbon credit market and thus raises sensitive issues, such as carbon rights and the need for extensive consultations

with potential participants, including indigenous populations that have expressed an aversion towards REDD+. The development of a multi-stakeholder dialogue and planning process through these initiatives has paved the way for local actors to potentially incorporate REDD+ into their agenda if it becomes more consolidated internationally and nationally.

Mount Cameroon sought a funding institution to purchase their forest carbon but they were not successful, possibly because of the lack of carbon additionality in their montane forest. They said the comparative advantage of REDD+ had not been demonstrated and it is possible the costs would exceed the benefits. The respondent for CED in Cameroon said they never considered themselves as REDD+, but instead as a PES project in the forest sector that can inform possibilities for future REDD+ development in Cameroon.

Five proponent organizations responded they were only 50-70% sure that they would continue functioning as REDD+ initiatives in 2015. For example, respondents from Acre were still operating under the label of REDD+, but said they had only a 50% level of confidence they would function as REDD+ in 2015 because their future depends on whether

the state government wants to implement their initiative. In addition to these five organizations, two of the proponents said that although they were highly likely to continue as REDD+ in 2015, at some point they had considered abandoning REDD+. The respondent for Ketapang Community Carbon Pools (KCCP) in Indonesia said he considers the cost of developing REDD+ to be too high relative to potential revenues from carbon offsets, so it only makes sense if KCCP is able to generate valuable co-benefits. The Netherlands Development Organization (SNV) has shifted to implementation at the jurisdictional level. They have considered abandoning the label REDD+ because their activities are aimed at going beyond REDD+ and including broader interventions addressing the interface between forestry and agriculture, energy and broader livelihood activities.

### Conditional incentives perhaps not as central as originally envisioned

There is evidence that conditional livelihood incentives, once thought to be a critical feature of REDD+, are not playing such a key role in local implementation. On the one hand, 18 of 23 proponents already have or will implement conditional livelihood incentives. And when asked to name the one type of intervention that holds the most promise for reducing deforestation and forest degradation at their site, nine of the 23 proponent organizations chose conditional incentives. Among all types of interventions, conditional livelihood incentives were considered to have the most promise. While this seems consonant with the original concept of REDD+, the reality is that 14 proponent organizations identified other types of interventions as having the most promise, namely: tenure clarification;

restrictions on forest access and conversion; non-conditional livelihood enhancements; forest enhancements; and others.

### Reluctance to discuss REDD+ locally

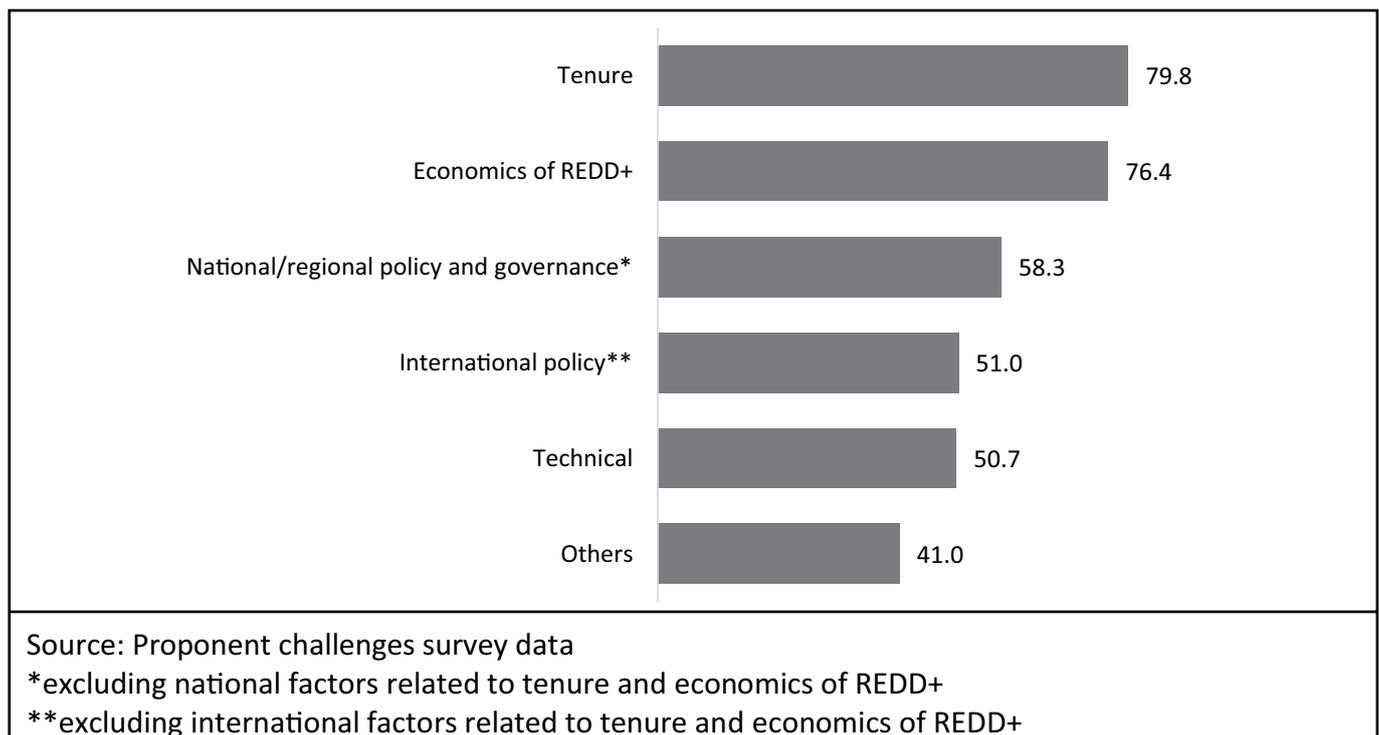
Six of the initiatives (three in Brazil and three in Indonesia) decided to postpone conducting stakeholder education about REDD+ in the FPIC (free prior informed consent) process for fear of unnecessarily raising expectations. Here too, proponents are in a holding pattern waiting until such time that the enabling conditions for REDD+ are promising enough to conduct this education and outreach.

*Question 2. What are the challenges faced by subnational initiatives?*

### The main challenges

The two main challenges faced by the 23 proponent organizations are tenure insecurity and the disadvantageous economics of REDD+ (Figure 1). The results show that the five factors related to tenure (governance: tenure conditions – national; national policy: tenure and land use; governance: tenure conditions [regional and local]; governance: tenure conditions [inside the site]; and regional policy: tenure and land use) rank respectively 1, 2, 4, 11, and 13 in the ordinal ranking of the severity posed by the 62 factors. The combined score of the tenure factors is 79.8 (Figure 1). It can therefore be concluded that tenure issues are the most formidable challenges experienced by proponents. Close behind, in second rank, are factors that we cluster under the heading “disadvantageous economics of REDD+,” with ordinal rankings 3 (international

FIGURE 1 Average scores of the degree of challenge posed by various factors in the implementation of subnational REDD+



policy: REDD+ [economic]), 6 (national policy: REDD+ [economic]), 7 (political economy: business-as-usual interests), 19 (economy: weak forest carbon market) and 21 (economy: REDD+ cannot compete). The combined score of the factors related to the disadvantageous economics of REDD+ is 76.4 (Figure 1).

*Question 3: How have subnational initiatives responded to their challenges?*

How did the subnational initiatives in our sample pursue their goals in the absence of a robust international enabling framework provided by the UNFCCC process? Here are some of the most notable approaches pursued:

- Six of the initiatives (Acre, Cotriguaçu, SFX, Ulu Masen, Berau, Cat Tien) are at the jurisdictional scale. Two of these (Acre, Ulu Masen) are members of the Governor's Climate and Forest Task Force (GCF). The GCF is an international networking organization dedicated to making progress on establishing REDD+ in the absence of an international climate change agreement. They are the institutional embodiment of the polycentric approach to climate governance. They promote information-sharing across and within national boundaries, and they are seeking compliance market funding through California's Air Resources Board. Currently there is controversy over whether this arrangement can move forward because of opposition to international offsets in general, and safeguards concerns with REDD+ in particular.
- All initiatives have moved ahead with the integrated conservation and development project (ICDP) approach which involves combining a negative incentive (restriction on forest access and conversion) with a positive incentive (non-conditional livelihood enhancement). ICDP is the institutional predecessor of REDD+ and was implemented with only marginal success in the decades prior to REDD+ (Wells *et al.* 1999, Brooks *et al.* 2006, Garnett *et al.* 2007, Brandon and Wells 2009). At 15 of the 23 sites, forest protection activities began ten or more years ago. Thus, the ICDP approach means simply carrying forward what was done in the past. And even at sites that began as REDD+ initiatives, proponents often started with an ICDP approach to build a foundation for the eventual introduction of conditional livelihood incentives.
- All 23 proponent organizations have given serious attention to clarifying tenure at their sites, recognizing that this is a fundamental step in preparation for performance-based incentives in REDD+, and for other reasons as well. In all countries except Brazil, proponents ran up against the limitation of attempting to resolve within their site boundaries problems of tenure insecurity that are national in origin and scope (Sunderlin *et al.* 2014b). In Brazil, proponents are able to engage directly with the national and subnational governments in addressing tenure issues. Brazil's Rural Environmental Registry (CAR) strives to assure there is a minimum 80% forest cover (in fulfillment of the Brazil

Forest Code) on private lands, and is a pre-requisite to land titling through the national *Terra Legal* Program. Although in principle proponents' ability to collaborate with government provides a strong advantage in addressing tenure issues, there are various challenges to be surmounted (Duchelle *et al.* 2014).

- Various initiatives decided to complement REDD+ with FSC certification, as a way to boost conservation incentives and income (Acre, Jari/Amapá, Ucayali, Mpingo, TNC in BFCP). In the case of Mpingo, prospective income from both REDD+ and certified timber are too low to stand on their own, so the coupled approach intends to produce a minimum income for the community.
- The proponent organization SNV in Vietnam, experiencing challenges in implementing REDD+ at the project level, has decided to move into the field of jurisdictional REDD+ at the provincial level.
- Perhaps the most creative and important actions taken by the proponents involve their reactions to limitations and vulnerabilities in the national and subnational environments in which they operate:
  - The initiative of the Government of Aceh is currently on hold after its champion, ex-Governor Irwandi Yusuf, stepped down from office. Zaini Abdullah, who succeeded him as Governor, is not as favorable to REDD+. In the meantime, members of the Task Force are actively involved in the GCF, waiting until there is a more propitious policy environment for resuming efforts to implement REDD+.
  - CED in Cameroon has steadfastly pursued its goal of demonstrating that PES in the forest sector can support rural livelihoods – in spite of encountering opposition to their plans from the government.
  - KCCP has shown great determination in applying to the central government for permission to convert local forest tenure to the *hutan desa* (village forest) category – which provides a tenure bulwark against external claims on local forest lands. In spite of years of bureaucratic resistance, they finally obtained the *hutan desa* designation.
  - Dharsono Hartono, head of the proponent organization Rimba Makmur Utama, decided years ago that he would refuse to pay any bribes for obtaining the various government permissions for establishing REDD+. Although such refusal set him back months if not years, he has finally gotten the permissions needed (although for half the forest area originally targeted), and in the process he has demonstrated that clean REDD+ is possible.

The central question of this paper is: Does the operation of subnational initiatives to date support the view that without a binding international agreement on climate change, REDD+ can still be implemented through polycentric governance? On the basis of the results, we can confidently state the answer is no: polycentric governance without a core (i.e. without an international agreement) offers only a time-limited life-line

for REDD+. The results of the proponent challenges survey, reinforced by the findings of a follow-up book (Sills *et al.* 2014), show that many proponents are facing mountainous challenges in getting REDD+ off the ground in spite of their creative approaches to keeping their initiatives going while laying the foundation for forest-based climate change mitigation.

The results show that finances and tenure are the two most important obstacles to advancement in subnational REDD+ (see also Sunderlin *et al.* 2014c). In order to understand that there is no “quick fix” to these two problems on the near-term horizon, it is important to keep the following facts in mind.

Without a substantially larger stream of funding than currently exists, the performance-based mechanism which is at the heart of the REDD+ idea will be too small to perform a meaningful role in bringing deforestation under control. The Stern Report predicted that US\$5–10 billion annually would be needed to achieve avoided deforestation (Stern 2006:217), and updated estimates are as high as US\$12.5–60 billion annually (Morris and Stevens 2011, Angelsen 2013). However pledged donor support to REDD+ in the period 2006–2014 (US\$8.7 billion total and not annual) (Norman and Nakhooda 2014) is a small fraction of these figures. Current funding for REDD+ comes almost wholly from donor financing to forested countries, and is orders of magnitude larger than funding available from the voluntary or compliance markets. This is problematic because: it is not a stable source of funding; short contracts of less than ten years make it difficult to commit to conditional, performance-based payments for reduced deforestation; development/humanitarian goals make the conditionality less credible (because proponents are unlikely to cut funding in conditions of under-performance; and it means that forest conservation competes with other development and humanitarian needs. In 2012, REDD+ offsets transacted in the voluntary market amounted to only 8.6 MtCO<sub>2e</sub> at a value of US\$70 million, and in the compliance market 1 MtCO<sub>2e</sub> was transacted at a value of US\$18.1 million (Peters-Stanley *et al.* 2013). Total potential demand for REDD+ emission reductions through 2020 is approximately 253 MtCO<sub>2e</sub>, whereas reducing annual deforestation by 50% by 2020 requires a supply of 3,300–9,900 MtCO<sub>2e</sub> from all forest and land-use activities. With demand 13–39 times smaller than supply, there is a US\$15–48 billion funding gap for REDD+ until 2020 (IFF 2014). Conservation International (2013: 1) observes that there is “a near-term oversupply of verified emission reductions from REDD+ projects that has the potential to expand over the coming five years to over 20 times the current market demand.” The Green Climate Fund is the centerpiece of efforts to raise US\$100 billion per year for all forms of mitigation and adaptation by the year 2010 (not limited to the forest sector) ([http://en.wikipedia.org/wiki/Green\\_Climate\\_Fund](http://en.wikipedia.org/wiki/Green_Climate_Fund)). However to date, the amount of GCF funding remains at \$10.2 billion (GCF 2015).

The member states of the Governors’ Climate and Forests Task Force have boldly asserted that by 2020 their member states and provinces will be able to achieve an 80% reduction in deforestation, avoid the emission of about 3.8 billion tons of CO<sub>2</sub> and 9.2 million hectares of deforestation (Swette *et al.*

2014). However at the GCF Annual Meeting in August 2014 it was concluded that insufficient funding is a major obstacle to achieving this goal.

In the results it was explained that the proponents identified lack of tenure clarity as the number one problem they face. All proponent organizations have mobilized strong efforts to address the tenure challenges by such actions as demarcating village and forest boundaries and identifying legal right holders. In spite of these efforts, lack of tenure security and clarity looms large as a potential obstacle to implementing REDD+ as planned. The performance-based mechanism in REDD+ requires not just identifying the legal right holder and bearer of responsibility, giving local stakeholders stable and long-term rights as an incentive for fulfilling their responsibility to improve custodianship from local forests, but also assuring that local people can fend off external claims on local forests. In most cases proponents are experiencing difficulties in achieving tenure clarity and security, and one major obstacle is at the level of governance. Proponents are trying to resolve within their project boundaries tenure problems that are national in origin and scope, and they are experiencing problems making headway because they are unable to collaborate with people in government to address the issue (Sunderlin *et al.* 2014b). Even in Brazil, where there is an institutionalized procedure for linking the efforts of proponents with counterparts in government through *Terra Legal* and the Rural Environmental Registry, the road to achieving tenure clarity and security is not necessarily smooth (Duchelle *et al.* 2014).

## DISCUSSION

Six years ago, failure to achieve an international climate change agreement at COP 15 in Copenhagen led to a wave of disillusionment with international climate governance and raised expectations that polycentric governance could provide an alternative. The results of this study show that polycentric governance is falling short of the mark in creating the foundation for effective forest-based climate change mitigation. Recognizing that these two modes of governance span the limits of options available on a continuum (centralized and decentralized), does this imply that efforts to mitigate climate change are doomed?

We believe that the answer is no, and that the path forward lies in combining the two modes of governance, since they are potentially mutually reinforcing and synergistic. In fairness to the observers who promoted polycentric governance several years ago, they held the same view (Ostrom 2010, Boyd 2011). However the pendulum of disillusionment with international climate governance has swung so far that opportunities for advancement at the international level are at times undervalued. The advancements at COP 19 in Warsaw were critically important in laying the groundwork for REDD+ (Stolle and Alisjahbana 2013), as were the efforts to redefine differences between Annex 1 and non-Annex 1 countries and create a climate finance mechanism at COP 20 in Lima (Morel *et al.* 2014). Further progress hinges on an international climate agreement at COP 21 in Paris in December

2015. While some observers are pessimistic about the chances of such an agreement (CICERO 2014), it is worth considering what such an agreement could do for moving REDD+ out of its current inertia.

A binding agreement requiring signatory countries to commit to greenhouse gas emission reduction targets would rebound strongly to the benefit of REDD+ implementation. National commitments would stimulate, revive, or reinforce a range of actions in support of REDD+, among them:

- Invigorate the regulatory environment against fossil fuel emissions, which in turn would stimulate economic incentives to pay the opportunity costs of foregone tropical forest conversion, either as public sector funds (international and national) or in the form of marketing forest carbon credits.
- With standing forests more competitive as a land use option, there would be greater state interest in securing appropriate tenure preconditions for REDD+.
- Stronger state backing for forest conservation implies the need to elaborate or reinforce FLEGT and other state instruments for controlling corruption and collusion in the forest sector.
- Increased regulatory and market signals in favour of standing forests will motivate stronger initiatives on the part of the corporate sector (notably zero deforestation campaigns, commodity chain interventions, and moratoriums).

It should be noted that although an international climate agreement would give a substantial boost toward the performance-based mechanism that is central to REDD+, this does not guarantee the mechanism will function as planned. REDD+ is still at an experimental stage and it is impossible to predict how it will unfold, even if the proper preconditions are in place. Moreover, even with the strongest possible set of national commitments in an international climate agreement, there is still a 50% gap that needs to be closed to stay below a two degree Celsius temperature increase by 2030 (Belenky 2015).

It is important to be clear about what our support for an international climate change agreement does and does not imply. We are not arguing that the performance-based conditional reward system is the only important feature of REDD+. There are other key mechanisms for achieving climate mitigation through REDD+ including policies and measures (PAMs) at the national level such as restrictions on forest access and conversion (e.g. the Brazil Forest Code or the Indonesian Forest Moratorium), national efforts to create an appropriate tenure foundation (e.g. regularization through *Terra Legal* and Rural Environmental Registry in Brazil, and the One Map Policy in Indonesia), and efforts to create functional and efficient systems for Measurement, Reporting, and Verification (MRV). We are saying that the performance-based reward system is a key innovation introduced by REDD+ that risks not being deployed or deployed fully, largely because of delays in creating a viable funding mechanism. We are saying that forest-based climate change

mitigation is at risk of falling far beneath its potential without a global climate change agreement, which appears to be indispensable for producing a large income stream to pay the opportunity costs of land conversion, and motivate stronger PAMs as well.

In calling for a binding international climate change agreement, we are not arguing for top-down governance. The limits of that model have been decisively demonstrated. Instead we are underscoring the utility of an internationally-agreed schedule of national greenhouse gas reductions as a catalyst for creating a durable REDD+ finance mechanism. A binding agreement is necessary, but not sufficient for assuring that an invigorated REDD+ financial architecture will function properly – i.e. assure that incentives and beneficiaries are efficiently and equitably linked.

We are not saying that forest-based climate change mitigation will wither away and die if REDD+ does not obtain a substantial funding stream. There have been and will continue to be polycentric experiments within the constraints of available funding. Our own research shows that some initiatives have ceased operation in part because enabling conditions for REDD+ are not yet in place, and some proponents are shifting towards jurisdictional-level low carbon development, motivated either by lack of funding, aversion to commodification of forest carbon, or both. We are saying that these alternative formulations of forest-based climate change mitigation potentially involve exiting REDD+ as originally envisioned, and accordingly, some proponents are dropping the REDD+ label.

We are not saying that REDD+ is the only way to achieve forest-based climate change mitigation. Brazil achieved spectacular success in cutting its annual deforestation rate by 79% in the period 2004 to 2012 (INPE 2014). The impetus for Brazil's success was initiated in 2005, the year before REDD+ was announced. Among the reasons for this success are various national policies, and in addition a reduction in commodity prices that reduced private investments in land clearing (Assunção *et al.* 2012). Nevertheless the Brazil experience reinforces our point about the urgent need to fund a performance-based reward system. Brazil has experienced a setback with the rate of deforestation growing 28% in 2012 and 2013 (Nepstad 2013). The leading hypothesis for explaining this resurgence in Brazilian deforestation is that “command-and-control” measures that have been implemented in the Amazon to reduce deforestation are reaching their limits. Farmers have yet to receive positive incentives for their roles in lowering deforestation” (Nepstad *et al.* 2013).

Our results lead us to the conclusion that polycentric governance of a global public good like the climate requires a functional layer of global governance within which polycentric efforts by national and sub-national governments and civil society can be nested. National and subnational governance is moving REDD+ ahead modestly in measurable ways, but comes nowhere close to building REDD+ on the scale (amount of financing) or approach originally envisioned. REDD+ has motivated some important national and subnational advancements in forest tenure reform, but they are not yet sufficient to lay an appropriate foundation for REDD+. The inadequacy of

polycentric governance operating on its own is the reason sub-national REDD+ initiatives are treading water, afraid of raising expectations, and relying heavily on the ICDP approach.

High reliance on the ICDP approach risks being a major setback if it is the only or the principal mode of operation in sub-national initiatives. ICDPs were commonly implemented in buffer zones around protected areas in response to criticisms of fortress conservation. The logic was to promote livelihood activities that depend on standing forest and/or draw labor away from deforestation. However, in practice, the ICDP approach came to represent the combination of restrictions on forest access and conversion (e.g. through enforcement of a protected area) and compensation to local people (e.g. through provision of local services or support for new livelihood activities). Most evaluations of this approach have found it to be ineffective, contributing to recent interest in performance-based approaches like PES, which combine the incentive to change behavior and the compensation for changing behavior into one conditional benefit. Economic theory predicts that this approach will be more effective, but it requires a guaranteed long-term source of funding and willingness to withhold funding if performance standards are not met - both of which are undermined by current dependence of REDD+ on bilateral and philanthropic aid, rather than a carbon market.

Six years ago it was appropriate to point out that polycentric governance is a necessary approach because of policy failure at the global level. Now, with REDD+ almost at a standstill and with threatened further loss of momentum or perhaps even failure, polycentric governance on its own is clearly showing diminishing returns as a pathway towards supporting the goals of climate change mitigation. We argue that polycentric governance will only carry us forward with the highest circle of governance – a binding international agreement to mitigate climate change – in place.

## CONCLUSION

This paper has explored whether polycentric governance can fulfill the goals of REDD+. Evidence from 23 sub-national REDD+ initiatives in six countries suggests that while polycentric governance in REDD+ is essential, it will only work within the framework of an international climate change agreement.

From its first conceptualization, a system of performance-based rewards was to be the central feature of REDD+. The offer of such financial rewards has spurred many proponents to undertake a variety of actions to reduce forest emissions in sub-national initiatives. Many of these have offered livelihood incentives conditional on actions that reduce forest emissions, but these have by and large been pilot experiences, rather than operational systems intended for implementation over the long-run. Thus, the prospect of this mechanism fulfilling the lofty goals of REDD+ are slim. A substantial amount of funding for REDD+, key to success in the reward mechanism and to paying the opportunity costs of forest land conversion, has yet to materialize. In the meantime, REDD+ initiatives are placing emphasis on the ICDP approach of offering support for livelihoods in compensation for restrictions on forest use,

but without tying that support explicitly to compliance with the restrictions.

It is difficult to imagine how such a large fund can be mobilized, and on the time-scale needed, without a binding international climate change agreement propelling it into being. A binding agreement, if and when it is achieved, will create the regulatory environment necessary to stimulate a vigorous, durable, and worldwide financial architecture for REDD+, combining the efforts of the public and private sectors. Failing that, it is difficult to see how REDD+ as originally envisioned will move forward.

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