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Does Tenure Security Lead to REDD+ Project Effectiveness? Reflections from Five Emerging Sites in Indonesia

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Summary. — In the REDD+ debate, tenure security is often linked to equity concerns. Yet REDD+ is also about the effectiveness of reducing emissions. We propose a conceptual framework linking tenure with REDD+ effectiveness, taking into account that tenure security equally protects the right to reduce and to increase emissions. Survey-based research, at five emerging REDD+ sites in Indonesia in 2010, revealed that tenure is ambiguous and contested, thus insecure. Low dependence on forest-based livelihoods suggests limited interest in reducing emissions. Securing community tenure does not necessarily lead to REDD+ effectiveness unless it can compete with other economic interests that emit GHGs.

Key words — *de jure* and *de facto* tenure, interest, REDD+ effectiveness, forest, Indonesia, emissions

1. INTRODUCTION

Reducing Emissions from Deforestation and Forest Degradation (REDD+) is a strategy to engage forested developing countries in climate change mitigation. Tenure security, highlighted in current discourses, is a precondition for achieving these goals (e.g., Agrawal, Nepstad, & Chhatre, 2011; Cotula & Mayers, 2009). Most recent analyses focus on aspects of tenure pertaining to equity in REDD+ (e.g., Cotula & Mayers, 2009; Sunderlin, Larson, & Cronkleton, 2009), and less on tenure's connection to the efficacy of REDD+ in emission reductions or enhancement of carbon stocks. Specifically, the question still remains whether secure tenure leads to effective REDD+.

To address this gap, this paper offers insights on the link between effectiveness and tenure security based on field research and baseline data from five emerging REDD+ initiatives [1] in Indonesia, a country at the forefront of REDD+. We ask: "Does tenure security lead to REDD+ effectiveness in Indonesia?" First, we describe the tenure conditions and challenges for REDD+, then assess how they may affect REDD+ effectiveness. We offer a conceptual framework that links baseline tenure security (i.e., prior to REDD+ implementation) with short-term effectiveness of emissions reductions. It revisits current wisdom that tenure security ensures REDD+ effectiveness, and proposes the possibility for the contrary.

Indonesia is an important country in terms of REDD+. It has the third largest area of tropical forest in the world after Brazil and DRC, with high deforestation rates (World Bank, 2007). It has the largest number of REDD+ projects (Cerbu, Swallow, & Thompson, 2011), suffers from numerous land tenure conflicts (Yasmi, Kelley, Murdiyarso, & Patel, 2012) and only an exceptionally small area of its forest estates have formal access and ownership rights awarded to communities and indigenous peoples (Sunderlin, Hatcher, & Liddle, 2008, p. 8).

REDD+ is important in Indonesia's climate strategy as 80% of Indonesia's greenhouse gas (GHG) emissions come from the conversion of peatlands (45%) and forestlands (35%) (DNPI, 2009). Indonesia's high emissions from forest conversion make it one of the world's top GHG emitters (World Bank, 2007). While much work has been done on tenure issues in Indonesia (e.g., Contreras-Hermosilla & Fay, 2005; Li, 1996; Lynch & Harwell, 2002; Moniaga, 1993; Safitri, 2010; Zerner, 1994), few relate to REDD+ (e.g., Galudra et al., 2010) and no systematic research has been conducted on how tenure regimes in Indonesia may affect the effectiveness of REDD+.

The basic idea of REDD+ is to provide incentives to reduce GHG emissions from deforestation and forest degradation (DD) compared to a Business as Usual (BAU) scenario. [2] This

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includes supporting conservation, enhancement of forest carbon stocks and sustainable management of forests (Angelsen, 2009; Corbera & Schroeder, 2011). It bears similarities to traditional ways of improving forest management, but with a new objective for climate change mitigation and an underlying ideal of performance-based incentives (Sunderlin & Atmadja, 2009).

Clear and secure tenure arrangements are necessary for allocating incentives (e.g., Westholm, Biddulph, Hellmark, & Ekbom, 2011). While incentives provided by REDD+ can be used as the "carrot" to encourage reduction of emissions from REDD+, it is unclear whether they can compete with DD activities (Angelsen & McNeill, 2012). Insecure tenure has contributed to inappropriate forest management (Okali & Eyog-Matig, 2004; Savaresi, 2009; Scotland, 2000), and could pose significant challenges for REDD+ project implementation (Larson, 2011). However, recent evidence suggests that secure tenure, defined as "*the certainty that a person's rights to land will be recognized by others and protected in cases of specific challenges*" (FAO., 2002, p. 18), can also increase deforestation (Liscow, 2012).

Our main interest is tenure at the community level, although we recognize that in many cases local communities are not the main drivers of deforestation in Indonesia. Following Corbera, Estrada, May, Navarro, & Pacheco, 2011, p. 303), land tenure is defined as "*the right, whether defined in customary or statutory terms, that determines who can hold and use land (including forests and other landscapes) and resources, for how long, and under what conditions.*" Indonesia's regulatory framework does not explicitly distinguish between land tenure, forest tenure, and carbon rights (Robles, 2012). [3] Throughout this paper we use "land tenure" and "forest tenure" interchangeably encompassing rights to forests and carbon.

This paper draws on the Indonesian component of the Global Comparative Study on REDD+ of the Center for International Forestry Research (CIFOR) and the authors' extensive research experience and knowledge of Indonesia's land tenure context. Field observations and survey-based interviews were carried out at village and household levels at five REDD+ sites in Sumatera and Kalimantan in 2010. We describe the most common types of tenure in the study areas, people's perceptions of tenure security, the relationship between perceived tenure and actual ability to exclude outsiders, enforcement of forest rules, existence of internal and external disputes, relationships among these factors, and local interest in forest protection. The remainder of the paper is organized as follows. The background section describes REDD+ and the political economy of forest resources in Indonesia, *de jure* tenure regimes and land administration in Indonesia, and a framework of tenure and REDD+ effectiveness. The methods section describes our research and analytical methods. Results and discussion section presents the findings and discussion, followed by conclusions.

2. BACKGROUND

(a) *REDD+ and the political economy of forest resources in Indonesia*

Indonesia has become a major player in REDD+ given its 130 million hectares of tropical forests (Ministry of Forestry, 2008), 20 million hectares of peat lands (Rieley & Page, 2005) and an annual deforestation rate of 1.17 million hectares (Ministry of Forestry, 2009a, 2009b). Over 30 pilot projects, at various stages of development, are being initiated in Indonesia (Atmadja, et al., 2010; Sekala Forest Climate Center, 2012). Four billion dollars have been pledged by developed countries to support REDD+ (Brown & Peskett, 2011) and new national policies are being formulated for mainstreaming REDD+ (IGES., 2010; Indrarto et al., 2012). By 2020, Indonesia has pledged to reduce its GHG emissions from the BAU scenario of 1.33 Gigatonnes Carbon Dioxide equivalent (GtC02e) per year by 26% without support, and up to 41% with international support (Bappenas, 2010, p. 3).

The complexity of land tenure in Indonesia stems from Indonesia's economic dependence and political interests in natural resources (Gellert, 2010; Resosudarmo, 2005). Dating back to colonial times, customary forests have been appropriated for the rulers' timber trade (Lynch & Harwell, 2002). Post independence, forests have been used as the "engine" of development, generating income from log production in the 1970s, plywood in the 1980s, and pulp and paper in the 1990s to date. At present, large and small-scale oil palm and mining developments are also expanding in forest lands.

Forest resources generate income for the state and are sources of wealth, livelihoods, and-ultimately-power. Thus, control over and rights to these resources are often contested (Harwell, 2010), among various levels of government, communities, and business interests (Resosudarmo, 2007). Multiple interests at various levels fuel disputes over forests (Kusters, de Foresta, Ekadinata, & van Noordwijk, 2007; Suyanto, 2005; Yasmi, Guernier, & Colfer, 2009).

Forest-based resources were previously used as political and economic leverage by Central Government, where benefits flowed to a handful of business elites close to the Center (Ascher, 1998; Barr, 1998; Ross, 2001). Since decentralization in 1999, these resources are similarly used by local governments and benefits are mostly accrued by local elites (Barr, Resosudarmo, Dermawan, & McCarthy, 2006; Moeliono, Wollenberg, & Limberg, 2009; Resosudarmo, 2004). Marginalized, local and indigenous communities continue to receive few benefits (e.g., Barr et al., 2006; Wollenberg et al., 2006), often losing their traditional forest resources and livelihoods (Barber, Johnson, & Hafild, 1994; Moeliono, Wollenberg, & Limberg, 2009).

The locus of forest licensing authority has had major shifts in recent decades: from the Central Government during the New Order period (1967–98), to local (district and provincial) governments (1999–2002), then back to Central Government (2002–present). While district and provincial governments no longer have control over forest licensing, now they do have the authority to issue licenses for land uses that affect forests (e.g. agriculture and mining) and have done so indiscriminately without concern for social and environmental consequences (Resosudarmo, 2007; Resosudarmo, Mardiah, & Utomo, 2012). Although illegal logging is not as rampant as in the past (Casson & Obidzinski, 2002; Luttrell et al., 2011), forests continue to decline (FAO., 2010; Ministry of Forestry, 2009a, 2009b) and corruption within forestry persists (Dermawan, Petkova, Sinaga, Muhajir, & Indriatmoko, 2011).

Although the head of state gave his firm commitment to REDD+ and created the REDD+ Task Force in 2010, progress at the national level has been slow (Luttrell, Resosudarmo, Muharrom, Brockhaus, & Seymour, 2012). The national REDD+ policy process has been delayed by the lobbying of those who would stand to lose if REDD+ were to move forward and limit their Business As Usual practices (Luttrell et al., 2012). Thus, the interests shaping the political economy of forest resources, at the heart of which lies forest tenure rights, must be considered as Indonesia advances REDD+ initiatives.