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For Better or for Worse? Local Impacts of the Decentralization of Indonesia's Forest Sector

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Summary. — This paper quantifies the local impacts of mechanized logging on forest-dependent communities in Indonesia, before and after decentralization. A conceptual framework incorporates financial, social, enforcement, rent-seeking, and environmental impacts. Using data from 60 communities in East Kalimantan, the empirical results suggest that significantly more households received financial and in-kind benefits after decentralization compared to before. Many communities engaged in self-enforcement activities against firms both before and after decentralization. Post-decentralization, a significantly higher proportion of households perceived community forest ownership. There were few significant differences in perceived environmental impacts. Little evidence exists of a post-decentralization trade-off between environmental and financial contractual provisions.

Key words — Asia, Indonesia, decentralization, impacts, communities, self-enforcement, logging, trade-offs

1. INTRODUCTION

Over 60 countries worldwide have, over the last few decades, decentralized some aspect of natural resource management (Agrawal, 2001). Decentralization has typically led to the full or partial transfer of natural resource use rights from the state to local user groups or local communities (Ribot, 2002). While decentralization usually implies a top-down process, development that includes local empowerment depends on bottom-up processes (Chambers, 1997). Greater local-level participation in natural resource management has been promoted by researchers, non-governmental and international organizations as means of improving local management outcomes (Ribot, 2003). Of greatest concern to communities are equity and democracy considerations, specifically, a greater control over livelihoods and a greater share of natural resource benefits (Edmonds *et al.*, 2003).

While the decentralization of natural resource management can, in theory, produce efficiency and equity gains, these may be dependent on the degree of power transfers to local institutions (Ribot, 2003). [1] There is empirical evidence that community-level management can lead to ecological and social benefits. Larson and Ribot (2002), for example, review and compare cases of effective community natural resource management. But as Ribot (2004) notes, these project-based approaches occurred under close outside supervision and with intensive assistance. Thus, these experiences do not reflect what might occur in a more generalized decentralization setting. Kaimowitz, Vallejos, Pacheco, and Lopez (1998) argue that there is little evidence that forest sector decentralization has benefited forests and the people who depend on them. None of these studies attempted to quantify the impacts from decentralization reforms or compared impacts across user groups.

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During Asia's economic crisis, the fall of President Suharto in 1998 facilitated "Big Bang" decentralization in Indonesia, moving the country from being one of the worlds's most centralized countries to one of its most decentralized ones (Hofman & Kaiser, 2002). While other sectors were already, to some degree, decentralized, Indonesia's forest sector was greatly affected by these changes. In particular, forest-dependent communities exercised property rights over customary (*adat*) forest. Consequently, many communities that were involuntarily exposed to mechanized logging before decentralization engaged in direct negotiations and made agreements with logging firms in exchange for financial and in-kind benefits (Casson & Obidzinski, 2002). A new forestry law enacted by central government in 1999 formalized community use rights over forests, which were then sold by communities to firms. The popularity of these logging deals among communities increased with the creation of the new law (see Palmer, 2006).

Recent studies on the impacts of decentralization on Indonesian communities focused on the financial benefits and environmental costs, although the qualitative nature of these studies neither enable a comparison across cases nor a quantification of costs and benefits. Resosudarmo (2004), for example, considers the overall effects of decentralized forest management to be undesirable, with "mixed" impacts on communities (p. 126). Edmunds and Wollenberg (2003) stress, however, that it is important to understand what existed previously in order to place the impacts of decentralization on communities in context. This paper analyzes whether there are any significant differences between the impacts of centralized and decentralized systems of mechanized logging concessions on communities, using quantitative data collected from a large sample of communities in East Kalimantan province.

In the remainder of the paper, Section 2 presents the background to this study while Section 3 details the research methods. A context-specific conceptual framework is presented in Section 4. Building on previous case studies mainly undertaken by other researchers, we consider five categories of impact and hypothesize about their expected directions of effect with respect to decentralization. We define two categories of benefits (financial, social), and three categories of costs (enforcement, rent-seeking, and environmental). Enforcement and rent-seeking were not explicitly considered in previous studies. In Section 5, we present the empirical results using statistical analysis to test for differences in pre- and post-decentralization outcomes. In this section, we also examine the evidence for any trade-offs between environmental and financial provisions given evidence of community preferences for the inclusion of some environmental controls in post-decentralization, negotiated agreements (see Palmer, 2004). In Section 6, we discuss the empirical results and draw some conclusions from these in Section 7.

2. BACKGROUND

Under President Suharto in the 1960s, Indonesia's forests, covering at least 40% of the country's land area, were placed under central government control (FWI/GFW, 2002). Small-scale (manual) logging permits were issued by local governments to smallholders during this time. From 1970 onwards the central government granted large-scale permits known as HPH (*Hak Pengushahaan Hutan*, a large-scale timber extraction concession license) to firms (Ross, 2001). Forest area declined from 162 to 98 million hectares (ha) from 1950 until 2000 (FWI/GFW, 2002). This decline was at least partly due to the expansion of commercial, mechanized logging (World Bank, 2000). Legal small-scale logging was curtailed by the central government in 1971, [2] and firms' logging rights were given precedence over customary forest rights whenever the two were in conflict (Ross, 2001). An estimated 20 million people lived in or near natural forests (Sunderlin, Resosudarmo, Rianto, & Angelsen, 2000). People were resettled away from forest areas, and had restrictions placed on their forest uses, which were enforced by the police and army (Lindayati, 2001). State forestry laws consequently had little legitimacy in the eyes of local people (FWI/GFW, 2002).

The commercial, mechanized exploitation of forest resources was a significant factor fueling Indonesia's rapid, though unsustainable economic development from the early 1970s until 1997 (FWI/GFW, 2002). Beginning in 1997, the Asian economic crisis (*krismon)* affected Indonesia more strongly than any other country in the region, devastating rural livelihoods (Sunderlin *et al.*, 2000). Moreover, it severely affected the forest sector, including the profitability of many HPH firms (Casson & Obidzinski, 2002). The crisis was accompanied by