Forest Policy and Economics 96 (2018) 28–37

Contents lists available at ScienceDirect

Forest Policy and Economics

journal homepage: www.elsevier.com/locate/forpol

Analysis of corrective action requests from Forest Stewardship Council audits of natural forest management in Indonesia

Hermudananto[a], Claudia Romero[b,*], Ruslandi[c], Francis E. Putz[b]

[a] Universitas Gadjah Mada, Faculty of Forestry, Indonesia
[b] University of Florida, Department of Biology, USA
[c] The Nature Conservancy, Indonesia

ARTICLE INFO

Keywords:
Forest management certification
Corrective action request
Market based conservation interventions
Impact evaluation

ABSTRACT

We used corrective action requests (CARs) issued by conformity assessment bodies (CABs) working under the Forest Stewardship Council (FSC) certification in Indonesia to explore differences among audited natural forest management units (FMUs). Specifically, we evaluate how FMU characteristics influenced the classes of CARs issued and the time elapsed before their closure. We analyzed 933 CARs from 22 FSC-certified FMUs reported by six CABs in 99 public summaries. The average number of CARs issued did not vary with type of audit or CAB, most focused on social and environmental issues, and most represented minor infractions that were rectified with procedural changes (i.e., improvements in planning, record keeping, and reporting). None of the measured characteristics of Indonesian FMUs helped explain the foci of assigned CARs. The elapsed time before CAR closure differed among CABs and type of audit, but decreased over time. Large FMUs established before 1998 that employed many workers and subcontracted logging took longer to close CARs than FMUs with the opposite characteristics. Finally, conclusions based on this analysis should be made in light of the limitations of analyses based on reports from auditors rather than on direct observations.

1. Introduction

Tropical forest degradation by unnecessarily destructive and often illegal selective logging is a major global environmental concern (e.g. Contreras-Hermosilla et al., 2008; Hosonuma et al., 2012; Lawson and MacFaul, 2010; Tacconi, 2012; Vidal et al., 2005). Degradation continues despite increasing recognition that forests deliver vital environmental services such as clean air and water, support economic development through their production of wood and non-wood products, and generate local, regional, and global social benefits. One intervention used to stem the tide of destruction is voluntary third-party certification of products harvested from responsibly managed forests (e.g. Auld et al., 2008; Bishop et al., 2012; Ebeling and Yasué, 2009; Rametsteiner and Simula, 2003; Romero et al., 2013). Here we provide an analysis of the corrective action requests (CARs) in reports to the Forest Stewardship Council (FSC) produced by auditors from accredited conformity assessment bodies (CABs). We focus solely on natural forest management units (FMUs) in Indonesia. Our goal is to use the CARs to understand the emphases of auditors on ecological, social, and economic factors.

Forest management certification is a private, market-based, and voluntary intervention that provides a mechanism to evaluate whether forest management is economically viable for harvests of timber or non-timber forest products (NTFPs), socially and culturally beneficial, and environmentally sound (e.g. Romero et al., 2013; Shanley et al., 2005). Certification aims to use consumer preferences for products harvested from responsibly managed forests to create economic and other incentives for responsible forestry (FSC, 2015). The hope is that the market benefits of certification (e.g. price premiums and improved market access) will more than defray its substantial costs (Ruslandi et al., 2014).

Voluntary third-party certification involves labelling and then tracing to their end users forest products from areas managed according to responsible-management standards. To foster communication and transparency, a wide range of stakeholders participate in the process of certification (Viana et al., 1996). The evaluation process itself involves independent third-party CABs that assess the quality of forest management and issue written assurances that the audited FMU meets the requirements specified by the certification system's standards (Auld et al., 2008; Rametsteiner and Simula, 2003).

As of 2018, the two most prominent forest management certification schemes globally were the Forest Stewardship Council (FSC; https://ic.

* Corresponding author.
E-mail addresses: hermudananto@ugm.ac.id (Hermudananto), romero@ufl.edu (C. Romero), Ruslandi@tnc.org (Ruslandi), fep@ufl.edu (F.E. Putz).

https://doi.org/10.1016/j.forpol.2018.07.012
Received 18 October 2017; Received in revised form 19 July 2018; Accepted 26 July 2018

fsc.org/) and the Programme for the Endorsement of Forest Certification (PEFC; https://www.pefc.org/) that together certified about 12.7% (508 million ha) of forests and plantations globally. While the area under certification grows, uncertainty remains about whether and under what conditions certification leads to improved forest management outcomes on the ground (Blackman and Rivera, 2011; Miteva et al., 2012; Romero et al., 2013).

The numerous previous evaluations of the environmental, social, and economic impacts of forest certification in various countries mostly focused on the FSC (e.g. Cubbage et al., 2010; Ebeling and Yasué, 2009; Marx and Cuypers, 2010; Miteva et al., 2015; Moore et al., 2012; Tikina and Innes, 2008; Villalobos et al., 2018; Rafael et al., 2018). Forest certification impacts are especially hard to evaluate due to the intervention being voluntary, which increases the likelihood of positive selection bias (Romero et al., 2017). For this reason, naïve comparisons of certified and non-certified FMUs may lead to erroneous conclusions regarding the impacts of the intervention. Until the results from well-designed, field-based evaluations of certification by independent assessors are available, one admittedly problematic alternative is to assess certification impacts indirectly through analyses of CARs reported by CABs in the public summaries of their audits (e.g. Blackman et al., 2013, 2014; Peña-Claros et al., 2009: Rametsteiner and Simula, 2003).

FSC assessments based on analyses of CARs disregard the fact that the impacts of the certification intervention can only be revealed by proper impact evaluations (e.g. Romero et al., 2017). Despite this and other limitations, the hope is that by tracking how the types of CARs change over time, changes in forest management practices associated with certification can be revealed (Newsom et al., 2006). Two basic assumptions that underpin CAR analyses are that audit reports faithfully represent the quality of management practices on the ground and that any revealed changes over time are due to the certification intervention (Newsom et al., 2006).

With these caveats, we restrict our analysis to natural forest management because, in comparison to plantations, forests contain more biodiversity, deliver more critical ecosystem services, and have higher priority for conservation (Peña-Claros et al., 2009). We focus on the FSC because of the various certification schemes around the world, it is the oldest, most strongly endorsed by international civil society organizations, and the most widely used for certifying natural forest management in the tropics (Auld et al., 2008; Peña-Claros et al., 2009; Ruslandi et al., 2014). The other prominent forest certification system—PEFC—requires that FMUs meet all its standards before certification, except for minor non-compliances, and the summary reports it publishes after certification audits are much less amenable to analysis than those for the FSC. We focus on Indonesia because it supports the third largest tropical natural forest in the world, it has > 15 years of experience with forest certification, it has received substantial funding for certification adoption, and it is where all authors have first-hand experience and the senior author worked as a forest auditor for nearly a decade. Of particular relevance to this study, Romero et al. (2015) provide a comprehensive treatment of the context of natural forest management and FSC certification in Indonesia.

To study CAR evolution and the relationships between FMU characteristics and both CAR issuance and time-to-closure in Indonesia, we adapted the method developed by Blackman et al. (2013, 2014). Our intention is to reveal, to the extent possible with this indirect approach, how FSC certification affected forest management. We predicted that the meta-categories of CARs issued (i.e., environmental, social, economic/legal, and forest management) varied with FMU characteristics (area, age, number of workers, permit duration, vertical integration, principal market destination, and subcontracted logging). We also predicted that FMU characteristics influence the time required to close CARs. For insights into the auditing process, we tracked the available information about the auditors (e.g. education and nationality) over time. Increased representation of Indonesians on audit teams should enhance overall team capacity to understand the context of forest management decisions and probably decrease the costs of audits while potentially increasing the likelihood of conflicts-of-interest.

2. Background on certification and corrective action requests

2.1. Forest management and FSC certification

Forest certification emerged in the late 1980s when environmental activists were frustrated by the failure of public policy and intergovernmental processes to curb forest destruction (e.g. Auld et al., 2008). To this end, FSC was founded in 1993 as an international, independent, membership-based, non-governmental organization (NGO) dedicated to promoting environmentally appropriate, socially beneficial, and economically viable management of the world's forests through ten principles (FSC, 2016). FSC brings together a wide range of stakeholders including international timber traders, representatives of environmental NGOs, indigenous groups, and forest worker organizations, as well as other stakeholders including consumers of timber products (Auld et al., 2008). By December 2017 FSC had certified 195 million hectares of natural, semi-natural and plantation forests in 84 countries, with 1526 total forest management certificates (FSC, 2017).

2.2. FSC audit processes in Indonesia

The CARs extracted from public summaries of audit reports and used in our analyses result from a long process that starts with a review of documents provided to auditors by FMUs. These documents describe the FMU's implementation of FSC standards. Audit teams are typically composed of 2–4 people with backgrounds in ecology, sociology, or forestry. During the audits, team members interview forest managers, workers, and other relevant stakeholders (e.g. representatives of NGOs and local communities). Document review is followed by one or more field visits of 4–8 days during which the audit team verifies implementation of the FMU's stated procedures. Any non-conformities with FSC standards are described in written audit reports prepared by the audit team leader in consultation with team members. When team members disagree (e.g. whether a CAR should be major or minor), the lead auditor makes the final decision. On the last day of the audit, the team reports its preliminary findings to the FMU (e.g. describes potential CARs) in a meeting with forest managers and worker representatives. The lead auditor is then responsible for compiling and submitting the audit report to the forest management coordinator in their CAB. The peer-review that follows is carried out by two independent reviewers, one with the experience and technical knowledge necessary to evaluate the adequacy of the report and the other with specialist knowledge (e.g. high conservation value forest). Although the reviewers may be personally acquainted with audit team members and are compensated for their reviews (US $75-US$150 per report), they are expected to be independent. Once the reviewers are satisfied with the audit report, a five-year certificate is granted but with annual audits. Lastly, the final audit report is sent to the FMU and a public summary is uploaded onto FSC's website.

2.3. Corrective action requests - CARs

CARs represent reported failures to comply with specific principles, criteria, or indicators in the FSC standards that require rectification. A major CAR (referred to by FSC as preconditions prior to 2006) is a fundamental non-compliance that precludes achievement of the objectives of the standard or is the cumulative consequence of several minor findings with the same result. Minor CARs (referred to by FSC as conditions prior to 2006) represent non-systematic and easily rectified failures to satisfy indicators, but can be upgraded to major CARs if not dealt with adequately and in a timely manner. Since 2006, major CARs need to be resolved before FMU certification or within 3 months for already certified FMUs. Major CARs not closed in the allocated time