



# Unpacking Indonesia's independent oil palm smallholders: An actor-disaggregated approach to identifying environmental and social performance challenges



Idsert Jelsma<sup>a,b,\*</sup>, G.C. Schoneveld<sup>c</sup>, A. Zoomers<sup>a</sup>, A.C.M. van Westen<sup>a</sup>

<sup>a</sup> International Development Studies, Geosciences Faculty, Utrecht University, Heidelberglaan 2, 3584 CS, Utrecht, The Netherlands

<sup>b</sup> Centre for International Forestry Research, Jalan Cifor, Situ Gede, Sindang Barang, 16115, Bogor, Indonesia

<sup>c</sup> Centre for International Forestry Research, c/o World Agroforestry Centre, United Nations Avenue, Gigiri, P.O. Box 30677-00100, Nairobi, Kenya

## ARTICLE INFO

### Keywords:

Smallholders  
Oil palm  
Indonesia  
Compliance barriers  
Frontier expansion  
Cluster analysis

## ABSTRACT

Processes of globalization have generated new opportunities for smallholders to participate in profitable global agro-commodity markets. This participation however is increasingly being shaped by differentiated capabilities to comply with emerging public and private quality and safety standards. The dynamics within Indonesia's oil palm sector illustrate well the types of competitive challenges smallholders face in their integration into global agro-commodity chains. Because of public concern over the poor social and environmental performance of the sector, many governments, companies, and consumers are attempting to clean up the value chain through self-regulatory commitments, certification, and public regulation. As a result, many of Indonesia's oil palm smallholders face compliance barriers as a result of informality and poor production practices, and threaten to become alienated from formal markets, leading to a bifurcation of the oil palm sector. Recognizing that many oil palm smallholders lack compliance capacity, myriad public and private actors have begun designing initiatives to address compliance barriers and enhance smallholder competitiveness. However, failure to properly account for the heterogeneity of the smallholder oil palm sector will undermine the effectiveness and scalability of such initiatives. By developing a typology of independent smallholder oil palm farmers in the Rokan Hulu district of Riau province, this article reveals the wide diversity of actors that compose Indonesia's smallholder oil palm economy, the types of compliance barriers they face, and sustainable development challenges they pose. In doing so, this article illustrates how global agro-commodity chains can drive agrarian differentiation and offer new insights into the complex dynamics of agricultural frontier expansion.

## 1. Introduction

An estimated 84% of the world's farms are managed by smallholders cultivating less than 2 ha of land (Lowder et al., 2016). Although most smallholders in developing countries are involved primarily in subsistence-based production, globalization and rising global trade flows have over recent decades enabled many smallholders to participate in and benefit from more commercialized global value chains (Lee et al., 2012; Rigg et al., 2016). Changing rules and relations in many of these global value chains have though begun to raise concerns over the appropriate modes and effects of smallholder participation. For example, the proliferation of safety and quality standards, quality-based competition and rising market concentration is increasingly shifting power relations between farmers and processors/retailers in favour of the latter and brought about new barriers to smallholder market

participation (Lee et al., 2012; McCullough et al., 2008). This poses new challenges for leveraging commercial smallholder production in support of inclusive and sustainable development objectives and calls for targeted support in order to enable smallholders to more effectively compete in global markets. However, because public statistics and discourse tends to treat 'smallholders' as a homogenous population (e.g. DJP, 2015) or as a dichotomy of company-assisted and independent smallholders (e.g. Brandi et al., 2015; Euler et al., 2016; Lee et al., 2013), development policies often fail to adequately account for the wide range of actors they represent and issues they face. In order to avoid inefficient and sometimes detrimental one-size-fits-all solutions, there is a need to further unpack smallholder attributes and develop more actor-disaggregated interventions (Fan et al., 2013).

This article focuses on smallholder oil palm farmers in Indonesia, which account for an estimated 40.8% of the total Indonesian oil palm

\* Corresponding author at: Centre for International Forestry Research, Jalan Cifor, Situ Gede, Sindang Barang, 16115, Bogor, Indonesia.

E-mail addresses: [ijelsma@gmail.com](mailto:ijelsma@gmail.com) (I. Jelsma), [G.Schoneveld@cgiar.org](mailto:G.Schoneveld@cgiar.org) (G.C. Schoneveld), [E.B.Zoomers@uu.nl](mailto:E.B.Zoomers@uu.nl) (A. Zoomers), [A.C.M.vanWesten@uu.nl](mailto:A.C.M.vanWesten@uu.nl) (A.C.M. van Westen).

<http://dx.doi.org/10.1016/j.landusepol.2017.08.012>

Received 22 April 2017; Received in revised form 26 July 2017; Accepted 10 August 2017

0264-8377/ © 2017 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

acreage (DJP, 2015). The dynamics within Indonesia's oil palm sector illustrate well the types of competitive challenges smallholders face in their integration into global agro-commodity chains. For example, due to public concern over the poor social and environmental performance of the sector (e.g. Enrici and Hubacek, 2016; Lee et al., 2014; Obidzinski et al., 2013), most major buyers from Europe and North America have over the past decade begun demanding producer compliance with voluntary certification systems such as the Roundtable on Sustainable Palm Oil (RSPO). Increasingly, major chain actors are augmenting these requirements with so-called zero-deforestation commitments, which aims to eliminate deforestation and peatland conversion from their entire supply chain (Pirard et al., 2015). In an attempt to enhance the global competitiveness of Indonesian palm oil, the Indonesian government has also developed a mandatory public standard, the Indonesian Sustainable Palm Oil (ISPO) system. In spite of the latter being widely criticized for attempting to undermine the more encompassing private standards (McCarthy et al., 2012), the increasing imperative to comply with the various standards has placed increasing sustainability and legality demands on Indonesia's oil palm smallholders. Independent smallholders are currently poorly equipped to comply with standards (Hidayat et al., 2015; Rietberg and Slingerland, 2016) and without adequate support, many smallholders threaten to become increasingly alienated from both domestic and global palm oil markets (Cramb and McCarthy, 2016; Lee et al., 2012). Recognizing that many oil palm smallholders lack compliance capacity, numerous development agencies, corporations, and multi-stakeholder initiatives have begun designing initiatives to address compliance barriers and enhance smallholder competitiveness.<sup>1</sup> However, failure to properly account for the heterogeneity of the smallholder oil palm sector may threaten to undermine the effectiveness and scalability of such initiatives.

By developing a typology of independent smallholder oil palm farmers in the Rokan Hulu district of Riau province, this article reveals the wide diversity of actors that compose Indonesia's smallholder oil palm economy, some of the compliance barriers they face, and sustainable development challenges they pose. By examining the social geography of independent smallholder oil palm production, we illustrate how global agro-commodity chains can drive agrarian differentiation and offer new insights into the complex dynamics of agricultural frontier expansion.

As context, this article starts with an historical overview of smallholder oil palm development in Indonesia and a reflection on how smallholders are formally classified. This is followed by a description of methods and the analytical approach. The results that are subsequently presented comprise an analysis of the social geography of the smallholder oil palm landscape and a smallholder characterization drawing on hierarchical clustering. The paper concludes with a discussion and a reflection on findings.

## 2. Background

### 2.1. Transformation of smallholder oil palm production in Indonesia

Smallholder oil palm farming in Indonesia began to be actively promoted under the New Order regime with support of the World Bank in the 1970s through so-called *Perkebunan Inti Rakyat*/Nucleus Estate Smallholder (PIR/NES) schemes. The schemes principally served as a vehicle for the socio-economic development and political integration of Indonesia's outer islands (McCarthy et al., 2012; Molenaar et al., 2013). Early iterations of the schemes were state-led, which linked smallholders to state-owned plantation companies through outgrower

arrangements. Under these arrangements, the plantation companies developed plantations for smallholders (referred to as plasma) and provided inputs, technical assistance and finance. When the cost of plasma establishment was repaid, the formal ownership over the land was transferred to the smallholders. As the state, in the face of international criticism, began to take on a less active role in the sector over the course of the 1980s (McCarthy et al., 2012), responsibilities for plasma development began to shift to the increasingly prominent private sector (Badrun, 2011; Zen et al., 2016). Although numerous variations of the original PIR/NES were introduced during this transition (e.g. *PIR Akselerasi*, *PIR Swasta*, *PIR-Trans*), the *Kredit Koperasi Primer Anggota* (KKPA) scheme became the dominant model for smallholder integration during the 1990s. In an attempt to promote rural entrepreneurship, KKPA schemes adopted a more decentralized governance system, where Village Unit Cooperatives were responsible for credit and infrastructure management (Gillespie, 2010; Molenaar et al., 2013; Zen et al., 2016). Many of these cooperatives also took on plantation management responsibilities, albeit with mixed success. Although some district and provincial governments continued to promote PIR schemes during the 2000s (Zen et al., 2015), state subsidies to the schemes began to dry up following the East Asia Crisis and the end of the New Order regime in the late 1990s. Plantations companies were reluctant to guarantee commercial loans to smallholders and sector investments increasingly suffered. In order to reinvigorate the sector, the originally mandated 70:30 land split between plasma and nucleus was replaced in 2007 with a 20:80 land split (Gillespie, 2011; McCarthy et al., 2012). However, to date many companies still fail to achieve this 20% obligation and many new plasmas are 'one roof management' schemes, where plantation companies fully manage smallholder plantations (Gillespie, 2011; Zen et al., 2016).

Despite their declining significance, the various PIR schemes did make important contributions to rural development and the development of smallholder oil palm management capacities. As the oil palm market in Indonesia matured and infrastructure improved, many smallholders were increasingly able to develop oil palm independently (see Belcher et al., 2004; Feintrenie et al., 2010 for a more elaborate review of the emergence of the independent oil palm sector). Although the PIR programs managed to incorporate smallholders across an estimated 700,000 ha (Badrun, 2011) to 900,000 ha (Zen et al., 2015), the vast majority of the 4.76 million ha cultivated by (what the government classifies as) smallholders in 2016 is likely to be independent (Fig. 1).

In contrast to PIR development, the growth of the independent oil palm sector occurred without any far-reaching government planning or support (McCarthy and Zen, 2016). In part due to lack of state oversight, most independent smallholders receive little to no extension support and are often required to depend on informal land, input and offtake markets. As a result, they are often perceived as marginal and backwards when compared to modern estate agriculture (Gillespie 2011; McCarthy and Zen, 2016) and difficult to monitor through existing traceability systems (e.g. in the context of RSPO and zero-deforestation). Moreover, due to insufficient use of and access to high quality production inputs and adoption of poor management practices, most independent smallholders tend to be considerably less productive than commercial estates and PIR smallholders (DJP, 2015; Euler et al., 2016; Molenaar et al., 2013). The need to address this high yield gap and level of informality is however increasingly featuring in Indonesian policy and development discourse since it is increasingly recognized that failure to improve smallholder compliance with emerging market standards is not only an inclusive development issue, but also a sector competitiveness and sustainability issue.

### 2.2. The arbitrary definition of smallholders in Indonesia

While the Directorate of Estate Crops (DJP) and the Indonesian Bureau of Statistics (BPS) divide oil palm producers into three categories, namely smallholders, state-owned companies and private sector

<sup>1</sup> This includes, for example, activities undertaken under the Indonesian Palm Oil Platform (InPOP), Sustainable Palm Oil (SPO) Initiative, IDH Palm Oil Program, and the Smallholder Acceleration and REDD program (SHARP).

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات