

Sustainable palm oil as a public responsibility? On the governance capacity of Indonesian Standard for Sustainable Palm Oil (ISPO)

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Abstract This paper is motivated by the observation that Southern governments start to take responsibility for a more sustainable production of agricultural commodities as a response to earlier private initiatives by businesses and non-governmental organizations (NGOs). Indonesia is one of the leading countries in this respect, with new public sustainability regulations on coffee, cocoa and palm oil. Based on the concept of governance capacity, the paper develops an evaluation tool to answer the question whether the new public regulation on sustainable palm oil (ISPO) may become a viable alternative to private regulation. ISPO embraces a tremendous governance challenge as thousands of companies and millions of smallholder farmers are expected to participate. It is concluded that, although ISPO has initiated a process of change, it has not yet developed its full potential. The main reason regards ISPO's rather loose problem definition, weak authority of the implementing organization, and the fact that the reliability of ISPO is still too low to convince (parts) of the global market. ISPO may therefore face difficulties in meeting its

own targets and solving palm-oil related problems, such as deforestation, biodiversity loss, greenhouse gas emissions, and social conflicts between big plantations and local communities. The main governance challenge regards combining a more authoritative implementation mechanism with a convincing balance between sustainability objectives and economic interests of the sector.

Keywords Governance capacity · Palm oil · ISPO · Public certification · Sustainability standards

Abbreviations

APL	<i>Area Penggunaan Lain</i> /convertible land area
CAQDA	Computer assisted qualitative data analysis
FAO	Food and Agriculture Organization
FFB	Fresh Fruit Bunch
FPIC	Free Prior Consent
GAP	Good Agricultural Practices
GAPOKTAN	<i>Gabungan Kelompok Tani</i> /farmer group
GHG	Green house gas
HCS	High Carbon Stock
HCV	High Conservation Value
HCVF	High Conservation Value Forest
HGU	<i>Hak Guna Usaha</i> /land cultivation right
InPOP	Indonesian Palm Oil Platform
IPOCC	Indonesian Sustainable Palm Oil Communication Centre
ISPO	Indonesian Sustainable Palm Oil
IPOP	Indonesian Palm Oil Pledge
KPK	<i>Komisi Pemberantasan Korupsi</i> /corruption eradication commission
NGO	Non-Governmental Organization
PnC	Principle and Criteria
RSPO	Roundtable on Sustainable Palm Oil

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SMK3	<i>Sistem Manajemen Keselamatan, dan Kesehatan Kerja</i> /health and safety work management system
SVLK	<i>Sistem Verifikasi Legal Kayu</i> /timber legality verification system
UNDP	United Nations Development Programme

Introduction

Governments from some developing countries are currently developing their own, public sustainability standards and certifications as a reaction to earlier private standards by businesses and NGOs. The Indonesian government, for example, developed its own, supposed to be mandatory, sustainability standard and certification scheme for palm oil—Indonesian Sustainable Palm Oil (ISPO). Comparable schemes are proceeding for coffee and cocoa (Wijaya and Glasbergen 2016). Given Indonesia's status as largest palm oil producer in the world, we focus on Indonesia's public standard on sustainable palm oil in this paper.

The expansion of oil palm production in developing countries, including Indonesia, is widely debated. Although this expansion contributes positively to the Indonesian economy by generating job opportunities (Sheil et al. 2009), and creating benefits to the wellbeing of farmers (Rist et al. 2010), it is also associated with sustainability problems such as deforestation (Koh and Wilcove 2009; Sheil et al. 2009), the emission of greenhouse gasses (see Fargione et al. 2008; Sheil et al. 2009), biodiversity losses (Fitzherbert et al. 2008), and emerging social conflicts (Rist et al. 2010; Rival and Levang 2014).

Initiatives to overcome the adverse effects of palm oil production have particularly been taken by private actors (Glasbergen and Schouten 2015). An example of such an initiative is the Roundtable on Sustainable Palm Oil (RSPO). However, this Northern-based initiative is debated in terms of its effectiveness (Ruysschaert and Salles 2014; von Geibler 2013), inclusiveness of stakeholders' interests (Bitzer and Glasbergen 2015; Cheyns and Riisgaard 2014; Silva-Castañeda 2012), and its ability to contribute to sustainability changes (Bitzer and Glasbergen 2015). Many studies have also questioned the legitimacy of the RSPO as a multi-stakeholder initiative (see for example Partzsch 2011; Schouten and Glasbergen 2011, 2012; von Geibler 2013).

ISPO can be seen as a counter-initiative of the Indonesian government to the RSPO (Wijaya and Glasbergen 2016) and was established with the intention to increase the competitiveness of Indonesian palm oil, while guaranteeing the sustainability of its production, particularly in terms of the prevention of palm oil related problems. ISPO explicitly aims to be more economically viable for producers, while

remaining independent from foreign pressures (Schouten and Bitzer 2015).

The ISPO standard is currently compulsory for companies, and will become compulsory for smallholders in 2022 (InPOP 2015). This implies the certification of millions of smallholders, who are geographically spread, culturally and organizationally diverse and sometimes difficult to reach, which may challenge ISPO in realizing its objectives. Moreover, weak administrative structures may further challenge the implementation and enforcement of a public regulation in a development context (Schouten and Bitzer 2015) such as ISPO.

Based on a recognition of the potential of public regulations to induce a more sustainable palm oil production, this paper aims to contribute to a better understanding of the challenges Southern public initiatives are confronted with in their attempt to realize a more sustainable agricultural production. Based on the concept of governance capacity, we developed an evaluation tool, operationalized in a policy-driven and a problem-driven analysis, to answer the question whether ISPO may become a viable alternative to private regulation (e.g., RSPO). As a rather new initiative on sustainability, ISPO, and more generally public sustainability initiatives regarding palm oil production in developing countries, are still under investigated in literature. This research further informs about the relationships between private and public certifications regarding palm oil.

First, we will highlight ISPO's principles, and the procedures towards certification. Next, we will introduce our evaluation tool based on the governance capacity approach, followed by a description of the research methods, results and conclusions.

Characteristics of ISPO

ISPO's objectives are operationalized in 7 principles that need to be fulfilled by certified companies and -in the future- by certified smallholders (the latter only need to comply with the *first, second, fourth and seventh* principle):

1. *Compliance with legal business permits*
2. *The implementation of plantation management based on Good Agricultural Practices (GAP)*
3. *Protecting primary forest and peat land*
4. *Conducting and monitoring environmental management (e.g., protecting biodiversity, waste management, and fire prevention and mitigation)*
5. *Showing responsibility towards employees*
6. *Contributing to social and economic empowerment of society*
7. *Commitment to continuous improvements in sustainable palm oil production*

These principles are further elaborated in criteria and more detailed regulations that are collected from existing palm oil regulations from five different Ministries; The Ministries of Agriculture, Environment and Forestry, Agrarian and Spatial Planning, Manpower and Transmigration, and The Ministry of Health. To become certified, producers have to follow a pre-set procedure (see Appendix 1). ISPO's certification process starts with a plantation classification by the local government. In this classification, the local government assesses the extent to which plantations comply with the national regulations and meet the standard regarding plantation management. Only plantations that score well in this assessment (classified as 1st to 3rd class companies) can formally enter the process towards ISPO certification; poor performing plantations can adjust their practices and start a new classification procedure afterwards. Well-performing companies can request certification by submitting documents to an independent certification body. The latter will then verify the documents, perform field assessments, and report the final evaluation to the ISPO commission¹ and ISPO's assessment team.² In case of a positive evaluation, the ISPO commission approves the certification body to grant certification to the plantation. ISPO's certificate is valid for 5 years. Certified plantations receive an annual surveillance and can extend their certificate 1 year before it expires. In case of a negative evaluation, companies will be requested to rectify within 6 months. If they do not succeed, a re-audit should be done with the same certification body. According to regulation of the Ministry of Agriculture No. 11/2015, companies who refuse or forget to request certification will be downgraded to Grade IV automatically. This implies that their license will eventually be revoked (see Appendix 2 for the sanction mechanism and Appendix 3 for the time line).

Several studies compared RSPO and ISPO and concluded that the objectives of the standards are rather comparable, which can be explained by the fact that ISPO officials, when developing the scheme, were strongly inspired by the RSPO and initially even participated in it (Wijaya and Glasbergen 2016). Nonetheless, it is also concluded that the RSPO, compared to ISPO, is more voluntary (Schouten and Bitzer 2015), less complicated in terms of its certification procedure (Wijaya and Glasbergen 2016), stricter in terms of its regulations and criteria, and also

more inclusive in terms of regulations and criteria (Hospes 2014). Finally, although using similar vocabulary, the interpretation of concepts differs between the two standards (for example regarding the concept of 'high conservation value' see Suharto et al. 2015). Here again, RSPO's interpretation of concepts can be considered stricter compared to ISPO's interpretations of the same concepts (Hospes 2014; Yaap and Paoli 2014).

Analytical framework

This paper aims to analyze the implementation capacity of ISPO given its intentions, and its potential contribution to solve palm-oil related problems. We conceptualize the implementation of ISPO as a governance capacity challenge. This concept has been applied to a wide variety of topics, including the promotion of social innovation (González and Healey 2005), evaluation of policy initiatives regarding forest management (Howlett and Rayner 2006), coastal tourism (Caffyn and Jobbins 2003), and public-private initiatives in the environmental domain (Knill and Lehmkuhl 2002). Governance capacity generally refers to the ability to induce change (Lancaster and Ras 2012) and -in relation to ISPO-covers (1) the ability to act on available rules and resources as worked-out in ISPO regulations; (2) the ability to direct the interactions of the involved actors to concerted action through authoritative actions; and (3) the ability to navigate within the prevailing market context. Fulfilling these conditions subsequently needs to (4) induce change and contribute to solving palm oil related problems (see also Dang et al. 2015). The first three elements of governance capacity (rules and resources, authoritative actions, and market context) we operationalize in a policy-driven approach, the last element (regarding the problem-solving capacity) we operationalize in a problem-driven approach.

The policy-driven approach

The policy-driven approach can be considered a managerial approach that accepts certification as a governance instrument and questions how its governance can be improved. The policy-driven approach refers to ISPO's ability to organize a diversity of actors to work together towards ISPO's objectives and rules (concerted action), or—in other words—the extent to which the intended implementation of new regulations is, or can be, realized in practice. The policy-driven approach, in our case, takes ISPO's objectives and rules as given, and enquires whether these will be materialized and followed by actors in the palm oil sector. In the case of ISPO, we consider concerted action challenging for several reasons, including the foreseen

¹ The ISPO commission consists of members of the highest level of the central administrative structure (ESELON I) from the Ministries of Agriculture, Environment and Forestry, and Agrarian and Spatial Planning.

² The ISPO assessment team consists of government officials, ESELON II, which is lower than ESELON I in the organizational structure from the same Ministries as the ISPO commission, an NGO and producer associations.

participation of thousands of companies and millions of smallholders, the diversity of actors and interests involved, and the challenge of informing all actors properly. The diversity of actors involved does not only refer to actors from different domains (NGOs, producers, governments, research institutes), but also the involvement of actors from different governmental layers and sectors.

The problem-driven approach

The problem-driven approach is recently suggested by Bitzer and Glasbergen (2015) as an additional evaluative approach and analyzes problems within the embedded context of the needs, interests and preferences of different actors, while seeking an answer to the question of what the new regulation might be able to contribute in this context vis-à-vis other interventions. More specifically, this approach refers to the extent to which ISPO (if implemented successfully) contributes to solving palm oil related problems. In this paper we follow two lines: first, the problem definition as provided by ISPO itself (particularly low competitiveness of Indonesian palm oil in the international market, deforestation and the release of GHGs) and second, a definition resulting from critical accounts in the academic literature on palm oil production (verified through multi-stakeholders interviews), which generally refer to deforestation, the generation of social conflicts, biodiversity loss, and the intensified release of GHGs (see Abood et al. 2015; Brandi et al. 2013; Casson 2000; Hanu and Sadjli 2013; Koh and Wilcove 2009; Meijaard et al. 2005; Nellemann et al. 2007; Sheil et al. 2009).

Methods

ISPO's principles and planning differ for large plantation companies and smallholders. For large scale plantations, an ex-post evaluation is relevant because companies have been under ISPO certification already. Regarding smallholders, only one group is currently under an ISPO certification pilot project; all other smallholders have not yet been certified. Therefore, we use an ex-ante approach to evaluate the extent to which ISPO may meet its objectives regarding smallholders.

Our main research method comprises in-depth interviews for both the policy-driven and the problem-driven approach. We interviewed 45 informants from various stakeholder groups that were purposely selected based on their involvement in palm oil production and/or ISPO certification (Table 1). We performed interviews at the place preferred by the interviewees. We developed a list of open ended questions based on the literature (see below). This list was used for all stakeholders, although not all questions

Table 1 List of informants—2016

Categories	Number of interviewed respondents
Large plantation companies	5
Central government officials	7
Certification bodies	2
Development institute (UNDP)	1
Experts (from university and research institute)	6
Local government officials (Riau and West Kalimantan)	7
Environmental NGOs	3
Development NGOs	4
Companies associations	5
Farmer organizations	5
Grand total	45

could be answered by them due to differences in their expertise and knowledge. All interviews were recorded and transcribed.

In order to construct the list with questions for the respondents on the policy-driven approach, we selected variables from literature on concerted action and governance capacity. These variables include clarity of ISPO's legislations, ISPO's alignment with other rules, clarity in the communication of rules (Dang et al. 2015); availability of resources including people, budget, and knowledge (Börzel 1997; Dang et al. 2015), authority to enforce sanctions (Sabatier and Mazmanian 1979; Schneider and Ingram 1990) and contextual factors such as market acceptance, which may accelerate or hamper the implementation of ISPO's objectives (Dang et al. 2015). Regarding the problem-driven approach we constructed a cause-effect diagram of sustainability problems based on the literature, which was used in the interviews (see Appendix 4). Next to the factors in the diagram, we paid attention to ISPO's problem definition that also covers deforestation and the release of GHGs, but also the low competitiveness of Indonesian palm oil in the international market. The interviews focused on: (1) the extent to which respondents recognize the presented problems, (2) the extent to which they recognize the identified causes, and (3) how and to what extent they reason that ISPO can contribute to solving these problems.

We employed computer-assisted qualitative data analysis (CAQDA) to transcribe and analyze all interviews in the policy driven approach and the problem-driven approach. Transcriptions regarding the policy-driven approach were labelled based on the element of governance capacity the quote refers to (e.g., clarity of rules, availability of resources, authority, market acceptance), and whether the quote expresses a positive or negative opinion on the

governance capacity (see an example of quotation coding in Appendix 5). In the problem-driven approach, the quotations were labelled and grouped based on the problem under discussion and whether the respondent considers ISPO to be (conditionally) able to contribute to solving the problem.

We complemented the interviews with document analysis and participation in events. The document analysis included the official minutes of a diplomatic meeting about palm oil trade in Europe conducted by the Ministry of Trade and the Ministry of Agriculture, InPOP newsletters, The Jakarta Post newspaper, InfoSawit magazine, and communications from the IPOCC. The document analysis mainly enriched our understanding of palm oil related problems from ISPO's perspective and the way in which ISPO intends to solve these problems. Furthermore, we participated in three events; an ISPO evaluation meeting organized by a producer association (Jakarta, February 5th 2016), a socialization event of ISPO for farmer groups, organized by an NGO (Pelalawan-Riau, February 23rd 2016), and a multi-stakeholder workshop organized by UNDP (Jakarta, February 17th 2016). In these meetings we acted as a passive observer and recorded the discussion in notes. These observations allowed us to better understand ISPO's implementation process and the implementation barriers faced by companies.

Governance capacity: the policy-driven approach

On the clarity of rules

We observe that the rules of ISPO, as basic requirements to realize concerted action, are not problem-free. First, some of ISPO's action points are still rather vague. An example can be found in the rule about biodiversity conservation where ISPO touches upon the need for conservation management. However, neither the concept of conservation management, nor the corresponding management practices, or the intensity of these activities are explicated. Related to this vagueness is the absence of clear and detailed technical instructions, which leads to different interpretations of the PnC by different auditors. Issues such as healthy and safe working conditions, can therefore be seen as a requirement by one auditor but not by others. Therefore, a company may move its audit contract from a strict certification body to a less strict body to get certification in the easiest way. An auditor illustrated this:

Yes, some rules may be applied in different ways. For example, Government Regulation No. 50/2012 about the Application of a Health and Safety Work Management System/Sistem Manajemen Keselamatan, dan

Kesehatan Kerja (SMK3).³ According to this regulation, palm oil millers are required to have certification on the SMK3,⁴ because they generally have more than 100 employees and these employees work with high-risk equipment e.g., a boiler. Therefore, millers are categorized as having a high management risk. [*Which implies that they should have an approved SMK3 in order to receive a certificate*]. This is however discussed in the appendix of the original rule, and therefore some certification bodies believe that the SMK3 certificate is not mandatory for miller companies [*in the process towards certification*].

Second, we observe conflicting rules within ISPO, and between ISPO and other ministerial regulations. Oil palm cultivation in peatland, for example, is explicitly permitted under ISPO point 2.2.1.4⁵ but not under principle 3⁶ in the protection of primary forests and peatlands, and neither under the regulation of the Ministry of Environment and Forestry dealing with peatland clearance.⁷ ISPO's regulation about land use management offers another example of conflicting regulations, especially the requirement to use all concession areas for oil palm plantations within 6 years. This regulation conflicts with a regulation from the Ministry of Agrarian and Spatial Planning, that is, *Surat Edaran* no. 10/SE/VII/2015 regarding High Conservation Value Forest (HCVF). The latter regulation suggests conserving High Conservation Value (HCV) areas⁸ whereas ISPO would proceed to classify non-used land as abandoned. Both vagueness of rules and the existence of conflicting rules between the Ministry of Agriculture and other Ministries, create confusion for palm oil companies. Confusion may either result in passiveness or it may hamper the concertedness of actions and threaten the (univocal nature of) actions in the field.

³ Translated as safety management system and occupational health.

⁴ See Government Regulation No. 50/2012 Appendix 1 about the implementation guidance of SMK3, on page 6 point C, explaining that to implement a safety management system and occupational health planning a company should provide an expert, who has a SMK3 certificate.

⁵ See PnC ISPO, point 2.2.1.4 which is based on Regulation of Ministry of Agriculture No. 14/2009: "plantation companies who cultivate palm oil in peat land should pay attention to the characteristic of the peatland to eliminate the environmental damage".

⁶ See PnC ISPO, Principle 3 about: "protection to the utilization of primary forest and peat land areas".

⁷ See *Surat Edaran* Ministry of Environment and Forest about moratorium on peat land clearance, 3 November 2015.

⁸ A location permit is a permission letter that is issued by the local regency government, in order to carry out activities involving the acquisition of land.

Availability and distribution of resources

In our research we observed problems related to the availability and distribution of resources that can be expected to seriously hamper concerted action. Lack of resources occurs on different governmental levels, both in terms of money and manpower. First, on the national level, we observe limitations in the availability of certification bodies. Nation-wide, ISPO encompasses 11 Certification Bodies with 800 auditors. Most of the auditors are overloaded with work, bearing the risk of a lower performance of the certification bodies. Reviewers working at ISPO's secretariat are also limited in number (4) and have more work than they can handle. In the best case, this issue may delay the process of ISPO certification, but in the worst case it may prevent and discourage plantations to become certified. An auditor reported:

We have already handed in the audit report to the ISPO secretariat, but the review in the ISPO commission takes a long time. [...] we submitted a report in September 2014, but we only received back the review by November 2015...

and:

... after they heard about the experience from other companies, they [companies] now take indifferent positions... they [companies] say things such as, 'my neighbor's company has been registered for ISPO a long time ago, but ISPO certification has not been issued yet. Why should I make more expenses on the account of ISPO'? I don't know if it will ever be issued.

At the local governmental level, there are not enough people to conduct the compulsory classification. Some trained officers have been reallocated to other divisions, without any appropriate replacements. This means companies cannot even start the process towards certification. Next to a lack of personnel budgets are limited as well. To deal with these limitations, local government officials now often conduct the assessments based on desk studies, without performing field evaluations. This may result in inaccurate classification results, as a company may possibly be classified as an eligible company but formally does not comply with all requirements.

Further, we also see that local governments cannot easily access information about participating companies in ISPO in their region. This results in difficulties in monitoring these companies and in controlling them. Moreover, our research indicates many cases where knowledge about ISPO has not reached the village level or the extension officers yet. A local government official said:

...We do not know how many companies are currently in the process of certification here. We do not suggest complicated bureaucratic procedures, but in order for us to proceed with our task of supervising this process, we need to be informed about it. We do not have enough budget to go to the field directly. At least, if we would be informed, we would know that Company 'A' has reached this process... Company 'B' is undergoing that process, then, we can follow up on the difficulties they are faced with.

Facing constraints in budget and manpower may slow down and even negatively influence the initial classification process (i.e., approving companies unjustly). It may also threaten concerted action if different regions are confronted with different intensities of constraints and/or deal with these constraints differently. Together with a lack of communication, limited resources may also harm ISPO's objectives in the process towards certification, and at the moment companies are certified already. Verification of the extent to which companies meet ISPO's criteria and whether they are, and remain, compliant is currently put under pressure due to a limited availability of resources on the national and regional governmental levels.

Authority and enforcement

Our research reveals that the authority of ISPO committee is rather limited. However, authority can be considered crucial to motivate companies and smallholders to follow rules and regulations and to enforce sanctions to assure that actions are in line with ISPO's policy objectives. ISPO's regulations are an accumulation of (national) rules under various ministries and the execution of each rule, including the right to enforce sanctions, lies fully beyond ISPO's influence, and belongs to the legal domain of the separate ministries. This leads to a serious lack of authority on behalf of ISPO.

Inadequate coordination between the different ministries further hampers ISPO's speed of action and potentially leads to a rather passive or expectant attitude of ministries and companies.

A spatial planning official on the provincial level illustrates this:

...Well, we take a passive position. As long as they (producers) do not propose to issue their HGU (land cultivation right), we will not ask them to do so... now, if it becomes an obligation of ISPO, it is not our program... we cannot "pick up the ball" unless our Ministry (The Ministry of Agrarian and Spatial Planning) regulates it.

The Head of the ISPO commission informed:

On one hand, we push oil palm plantation companies to get ISPO certification, on the other hand, business actors are still constrained by a lack of coordinated management between the Ministry of Environment and Forest, and the Ministry of Agrarian and Spatial Planning. Sometimes companies already have a HGU legally issued by the Ministry of Agrarian and Spatial Planning, but [this legally issued HGU is then] contradicted by the ministry of environment and forest because it is claimed to overlap with forest areas. The ISPO commission cannot do anything, as this is the domain of the Ministry of Environment and Forest.

Second, and in line with the results above, we observe that the ISPO commission lacks authority to enforce sanctions for non-compliance with ISPO standard. Sanctioning (i.e., lowering the Plantation Grade and revocation of the Plantation's Permit⁹), belongs to the responsibility of local governments (Governor or *Bupati/Walikota*). Following from this, we can state that Indonesia's decentralization policies (see for example Firman 2009; Hadiz 2004) increase ISPO's inability to enforce sanctions as local governments are allowed to make decisions in the domain of agriculture independent from the National government. Patron-client relationships (see Kolstad and Søreide 2009; Varkkey 2013) and economic considerations may further demotivate local governments to execute punishments (Ascher 2000; Tacconi 2007) as this may harm support for their election programs or reduce income from taxes. One respondent illustrates this (Anonymous):

... but sometimes, we cannot deny that the Bupati¹⁰ cannot be 'hard' to companies... If the Bupati is a good friend of certain companies, it is difficult to establish instruments for monitoring and controlling. I myself wonder if it is possible to revoke the plantation's permit by the Bupati, because, he is the one that issued the permit.

A member of the Provincial Investment Coordinating Board/*Badan Penanaman Modal Provinsi* said:

⁹ According to Regulation of Ministry of Agriculture No. 98/Permentan/OT. 140/9/2013, there are 5 reasons for revocation of a plantation permit: (1) a plantation company having ≥ 250 ha does not establish a plantation for smallholders; (2) a miller company who has a partnership with a cooperative, but does not sell at least 5% of the company's share to the cooperative; (3) a company who falsifies information about land holding; (4) a company who does not report any changes in the ownership and or management; (5) a company who does not fulfil obligations including zero burning and implementing environmental monitoring and control.

¹⁰ *Bupati*/Regent, is the head of a regency and directly elected.

At the local level, it is not easy to revoke a permit. We have to think about it. Because it will create unemployment and increases poverty in our region.

Another issue that complicates enforcement, particularly regarding newly developed plantations in protected areas, is that sanctioning may lead to social conflicts and economic hardship for the farmers who invested a lot of money in the plantations. Punishment may include the closure of plantations, which are farmers' sources of living. Legalizing these plantation areas, or adopting a passive attitude, like the government is currently doing, however, might create a precedent, which invites other encroachments such as opening new illegal plantations.

In summary, ISPO's lack of authority combined with a lack of incentives for local governments to assure compliance and punish companies or smallholders in the case of non-compliance or encroachments can be considered a serious threat for ISPO in meeting its objectives. Without an effective and well-functioning enforcement principle, implementing ISPO according to its aims and objectives may need to be dismissed as a myth.

Market acceptance

We observe that both the domestic and the global palm oil market do not yet support ISPO. First, certification of palm oil is no prerequisite in the domestic market; demand for uncertified palm oil is still rather high compared to the demand for certified palm oil.¹¹ A division manager in a palm oil company stated that:

Competitiveness of oil palm products really depends on the market. Let's have a look at the domestic market: let's say I have a margarine or soap factory in Jakarta. For the sake of our company's profit, we will buy the cheapest CPO. This may imply that we buy the CPO from Lampung instead of North Sumatera because of the cheaper transport costs. It doesn't matter whether the CPO is certified or not.

Second, a vivid black market exists in Indonesia (Dixon 2016; InfoSawit 2016) that makes it difficult to trace the origin of palm oil. So, even if domestic demand for certified palm oil would increase, incentives to produce sustainable palm oil remain low. As long as companies can continue selling palm oil products in the traditional market and if they feel ISPO does not offer benefits, such as tax reliefs, companies may likely postpone their participation in ISPO. Regarding acceptance in the global market, we observe that

¹¹ Based on interviews with a government official and the head of a palm oil company.

Western markets, including the European Union, United Kingdom (UK), and the United States, have not recognized ISPO as a sustainability standard yet. Acceptance of ISPO in the global market is crucial for its competitiveness. We particularly observe difficulties to convince the global community about the credibility and trustworthiness of ISPO (see Jong 2016). Promotional efforts from the ISPO commission and the Ministry of Agriculture in the Netherlands, the European commission, and Germany, in 2012 and 2015 (Suharto 2015) have not succeeded to convince the European market about the credibility of ISPO. This is illustrated by a representative of the UK Embassy:

There are credibility issues: about the development of the standard, the way in which the system runs, and the lack of transparency and independent audits. In fact, there is no credible system. SVLK¹² shows that Indonesia can do it differently, and now, the European Union has recognized it. I would like to see ISPO in the same position. As a British government representative, I dare to say, we will recognize ISPO when the standard is multi-stakeholder based, when the system is transparent and able to ensure the inclusion of smallholders. A multi-stakeholder approach gives us confidence that the ISPO system works.

Different from the earlier mentioned variables, that mainly posed a threat to concerted action, a lack of acceptability of ISPO in the global market threatens the extent to which ISPO will be accepted and followed by actors in the palm oil value chain.

Interim conclusions on the policy-driven approach

Our research based on the policy-driven approach indicates that ISPO lacks the ability to organize actors to work together toward concerted action. Most fundamental is the lack of authority to implement and enforce ISPO, which becomes visible in coordination problems related to different policies of different ministries, and in the division of responsibilities between the national government and the local governments. The latter are essential for the implementation of ISPO and verifying compliance. However, their autonomous responsibilities do not necessarily align with the aims and regulations of ISPO. Our results also indicate communication problems between the actors involved. These partly result from a lack of clear and operational rules, budgets, and man-power. Last, there are uncertainties about the acceptance of ISPO in the global palm oil market.

¹² Timber Legality Verification System/*Sistem Verifikasi Legal Kayu* (SVLK).

Governance capacity: the problem-driven approach

According to ISPO, the sustainability requirements of the RSPO are driven by 'western buyers' requests, they are very strict and imply higher production costs for Indonesian farmers (Suharto 2010). ISPO finds itself torn in two ways: on the one hand, they see that higher costs resulting from private certification may pose barriers to competitiveness in the global market, on the other hand, they see the risk of losing part of the export market when withdrawing from private certification. ISPO aims to improve the competitiveness of Indonesian palm oil in the global market and solve sustainability problems connected to palm oil production, such as deforestation and biodiversity loss, the release of greenhouse gasses (GHGs) and social conflicts. Our interviews indicate that most respondents agree on the identified sustainability problems and recognize the causes presented in Appendix 4. We could however identify differences in the way in which respondents conceptualize deforestation as a problem. Some respondents share ISPO's interpretation that deforestation is considered a problem if it occurs in protected forests only. Deforestation of unprotected forests is therefore not regarded problematic. In their argumentation, these respondents tend to refer to regional spatial planning documents (*Dokumen Rencana Tata Ruang Wilayah*), stating that unprotected forests are legally categorized as convertible area and therefore allocated to support regional development, including income generation, job creation, and the generation of government revenues. Legal deforestation may even be necessary to meet the target of the Indonesian government to reach 40 million tons of palm oil production annually by 2020. Other respondents however, including representatives from NGOs, conceptualize the problem of deforestation as a general loss of forest cover, independent from the question whether this is protected forest or not. A representative of the Ministry of Environment and Forestry stated:

Thus far, NGOs define deforestation as the loss of forest cover. We however, [also ISPO] believe that deforestation is only applicable to protected forests. Land-use changes in convertible forests should not be categorized as deforestation. Because forests [based on the Constitution of Indonesia article 33 (3)] shall be used for the greatest benefit of the people, and therefore, forest areas, which are allocated to plantations, are legally [by law] allowed to be converted.

Prevention of deforestation

Notwithstanding the location, palm oil plantations are often highlighted as driving forces of deforestation (Abood et al.

2015; Casson 2000; Koh and Wilcove 2009; Sheil et al. 2009). Private oil palm plantations were responsible for 88.3% of the deforestation linked to palm oil in Sumatera from 2000 to 2010, smallholder's plantations follow with 10.7% and government-owned oil palm plantations caused 0.9% of the loss of forest cover,¹³ both in protected and unprotected forests. However, we observe that the Ministry of Forest and ISPO has a limited ability to enforce laws to prevent or regulate deforestation caused by companies and smallholders, which may further contribute to deforestation in protected forests (Mulyani and Jepson 2013). Moreover, corruption, patron-client relationships, and rent seeking behavior of government officials are also often mentioned in the literature as causes for deforestation (Mulyani and Jepson 2013).

ISPO, as a compulsory standard, is potentially able to reduce deforestation in protected forest areas (37% of the total land area) (FAO 2014) if the scheme can be fully implemented and enforced. However, we also see that the exclusion of plantations that are evaluated as performing poorly in the first classification step of ISPO's procedure (see Appendix 1) does not only imply that they cannot join the process towards certification, but also that they remain beyond the control of ISPO. They may still commit forest encroachments as long as they can sell their products. Moreover, the absence of a commitment to zero deforestation, and the strong emphasis on prevention in protected areas only, may lead to an insignificant contribution of ISPO in reducing overall deforestation.

Improving competitiveness

ISPO's aim to increase the competitiveness of Indonesian palm oil in the global market seems difficult to realize. First, because ISPO is not recognized by global market players as a credible sustainability standard yet (see above). Particularly Northern actors such as retailers and consumers still see the RSPO as the only credible standard for sustainable palm oil (Schouten and Bitzer 2015). The negative NGO campaigns against Indonesian palm oil (IPOCC 2014; Lutfi 2014) may reverberate even when Indonesian palm oil producers become ISPO certified.

Second, ISPO also seems to lose the competition with uncertified palm oil on a producer level, as ISPO does not include a premium price or additional fee for certified palm oil (as RSPO does). Even though participation in the RSPO implies additional costs for smallholders, their profits increase because of the premium prices and premium fees (Hidayat et al. 2016).

Protection of biodiversity

The conversion of forests to monoculture plantations destroys wildlife habitat, and with it species including the Sumatran tiger, orang utan, and elephant (Meijaard et al. 2005; Sheil et al. 2009). Biodiversity loss in forests can subsequently be aggravated by forest fires (Nellemann et al. 2007) that are often purposely caused to clear forests to convert them to plantations. Moreover, oil palm plantations are intensively sprayed with pesticides and herbicides, which may create toxic run-offs killing animals and plant species if the waste is not well managed. Waste from the milling process of palm oil fruits is regularly discharged into rivers, being lethal to river biodiversity (Marti 2008).

Based on our interviews we infer that, under current conditions, ISPO will not be able to significantly solve biodiversity problems. First, because ISPO's regulations do not support the protection of biodiversity in convertible (i.e., unprotected) land areas (*Area Penggunaan Lain/APL*). Also, ISPO currently requires companies to cultivate their entire concession area even if this area contains High Conservation Values (HCVs) (see PnC 2.4. based on Decree No. 39/2014).¹⁴ Failing to cultivate the entire area, results in cancellation of the concession permit. Currently, initiatives are going on to overcome this problem by formulating new regulations about HCV (*Surat Edaran Menteri Agraria dan Tata Ruang* No. 10/SE/VII/2015) that also recognize HCV in converted areas. However, the new and prospective regulation only has a weak legal status¹⁵ and can therefore not be adopted by ISPO in the PnC. Second, because ISPO's interpretation of HCV, especially in comparison to RSPO's interpretation of the same concept, can be considered rather free of engagement. Where the RSPO obliges companies to protect all areas containing high conservation values, ISPO only obliges the protection of biodiversity in protection zones (*kawasan lindung* in Bahasa). As the national government defines these protection zones,

¹⁴ See Regulation of Ministry of Agriculture No. 11/2015 Appendix II, PnC ISPO point 2.4: A plantation company granted a location permit after Decree No. 39/2014 is obliged to manage/cultivate all the plantation area that is technically feasible (to be cultivated) by 6 years after receiving the permit.

¹⁵ *Surat Edaran Menteri Agraria dan Tata Ruang* No. 10/SE/VII/2015 is a new regulation issued by Ministry of Agrarian and Spatial Planning regarding the recognition of HCV in converted land areas (*Area Penggunaan Lain/APL*), and the encouragement to preserve the areas containing HCV. The *Surat Edaran/Circular Letter* is an official script containing notices, explanation, and instructions on how to carry out issues that are considered important and urgent. The circular letter is not a legal norm as a norm of a law or regulation and it is limited to internal instruction in an institution, therefore the circular letter cannot be used as a legal basis for changing *Peraturan Menteri/Regulation of Ministry*.

¹³ Interview result with expert (CIFOR).

areas may contain HCVs without being designated as protected zone.

Reduction of greenhouse gasses (GHGs)

Expansion of oil palm plantations contributes to GHG emissions (see Fargione et al. 2008; Sheil et al. 2009). Unsustainable agricultural production on peat land furthermore produces Methane gasses, and excessive fertilization, the transport of Fresh Fruit Bunch and CPO, and the fermentation of palm oil mill effluent¹⁶ (Sheil et al. 2009) also contribute to the emission of CO₂, CH₄, and N₂O. Further, palm oil plantations absorb less CO₂ than tropical forests that are usually destroyed to build the oil palm plantations. We observe a lot of confidence among palm oil companies and governmental actors regarding the ability of ISPO to reduce emissions by decreasing the use of chemicals, and adopting better waste management. However, we also found potential pitfalls that may counteract this reduction of greenhouse gasses, and potentially even lead to an increase in emissions.

First, because it is still possible under ISPO to legally convert areas containing high carbon stock¹⁷ or HCV¹⁸ into plantations, which releases substantial GHG emissions. Second, ISPO's approval to grow oil palm plantations in peat land areas (see Regulation of Ministry of Agriculture No. 14/2009), may contribute to further GHG emissions. An employee of an environmental NGO said:

...peat land is very important [...] to be conserved because it has a unique characteristic for preventing fire. Peat land contains water or a kind of lake. The function of water is maintaining the humidity level of the land, so that the peat land area is not easily fired. To establish oil palm plantations in peat land, the water must be drained using canalization. It results into soil subsidence: decreasing soil surfaces may increase the risk of flooding... Furthermore, the drainage of water on peat land will also increase the risk of fire and alter the decomposition of organic soil

¹⁶ Palm oil mill effluent is the waste water discharged from the sterilization process, crude oil clarification process and cracked mixture separation process.

¹⁷ The High Carbon Stock (HCS) approach is a methodology to identify areas of land suitable for plantation development, and for forest areas that can be protected (see: http://www.greenpeace.org/international/Global/international/briefings/forests/2014/HCS%20Approach_Breifer_March2014.pdf).

¹⁸ HCVs have biological, ecological, social or cultural values which are considered to be outstandingly significant or to be critically important, at the national, regional or global levels (see: <https://www.hcvnetwork.org/about-hcvf/what-are-high-conservation-value-forests>). HCV assessment is to identify whether HCVs are present and if so, to discover where they are located.

materials in such a way that it will release GHGs. The drainage process of peat lands and the degradation of peat land contributes twice to GHG emissions, which is higher than the emissions resulting from deforestation.

Third, although the PnC do refer to the aim of emission reduction, they do not specify this aim into a target. This led to confusion among target groups in defining actions, and our respondents seriously question whether they will take any actions as long as there is no clear target for emission reduction. The same holds for methane capture: although it is specified as an aim it is not clear how much methane ISPO aims to capture and whose responsibility this is. Therefore, medium and small-sized companies will not take actions in the direction of methane recovery. The fact that this would also imply additional costs further contributes to the passive attitude of small and medium sized companies.

Prevention of social conflict

The expansion of oil palm plantations creates social conflicts (Casson 2000; Rist et al. 2010; Rival and Levang 2014). One of the causes is the unclear land right/tenure system (Austin et al. 1998; Obidzinski et al. 2012; Rist et al. 2010; Sheil et al. 2009) and uncertain customary land rights (Gerber 2011). Communities living in, or nearby, allocated concession areas are in a poor bargaining position to prevent companies to take their land. Corruption and clientelistic behaviour commonly occur in the communication process between companies and the local government to get (illegal) concessions (Marti 2008; Wakker 2005). Furthermore, social conflicts between communities around palm oil plantations occur, mostly between migrants and local communities. This happens often as companies prefer migrant labour over local communities to work on estate plantations (Casson 2000; Marti 2008; Sheil et al. 2009). Our research shows that ISPO tries to contribute to solving social conflicts through its emphasis on the obligation for palm oil companies to develop smallholder plantations for surrounding communities in at least 20% from their total concession area and to create productive economic activities for surrounding communities. However, because a lack of clarity in procedures especially for scheme plantations may not solve social conflicts (Gunawan et al. 2015; Hanu 2015). Also the problem resulting from corruption and patron-client relationships will not be tackled through this approach.

Further we observe that ISPO does not recognize FPIC (Free Prior Consent) and does not facilitate a balanced negotiation between large plantation companies and local communities, which often leads to social conflicts. ISPO

does not improve the bargaining position of local communities in negotiation processes and an NGO working with smallholders showed examples where it happened that local communities did not actively participate in negotiations with companies at all. This implies that communities become unable to refuse new plantation establishments, and may only be able to accept the company's plantations with negotiated compensation (Suharto et al. 2015). We, however, also observe that this situation does not result from a lack of regulations about negotiation processes, but also from the way in which companies interpret existing ISPO regulations¹⁹ and a difference in the substance of the regulation between FPIC in RSPO and ISPO's social regulation. For example, companies do say they follow the rules by informing local communities, even if they do not give a balanced overview of the situation [e.g., only referring to potential positive effects of establishing a plantation and ignoring potential negative (side-) effects]. Moreover, ISPO's strategy only recognizes customary communities if they are supported by the local government may further induce social conflicts.

Interim conclusions on the problem-driven approach

In the problem-driven approach we analysed whether ISPO, if successfully implemented, contributes to solving palm oil related problems. On the one hand, this analysis results in a rather pessimistic view -that is often shared by the respondents- in which we conclude that ISPO will not be able to solve problems regarding the competitiveness of Indonesian palm oil in the global market, deforestation of protected and unprotected forest, and loss of biodiversity, and will only be partially able to solve problems regarding the release of GHGs and social conflicts. The pessimistic view may even be enforced by the fact that some of the underlying reasons for ISPO not being able to significantly improve these problems, lie beyond the direct control of ISPO. Here again, we see that the existence of patron-client relationships, corruption, decentralized authoritative responsibilities, and ISPO's inability to influence enforcement mechanisms create conditions in which ISPO is not well-equipped to solve palm oil related problems. On the other hand, however, we see that ISPO has some leverage points to improve its capacity to solve palm oil related problems. This mainly regards setting stricter targets and guidelines for GHGs and Methane reductions and negotiation procedures between companies and communities.

¹⁹ See Regulation of Ministry of Agriculture No. 11/2015, Appendix II, point 1.3: "Companies whose land concessions originate from customary land rights are required to negotiate an agreement with the people about the land release and its compensation authorized by the Governor/Bupati/Walikota".

ISPO could also put more efforts in incentivizing poor performing producers to catch up and meet minimum standards for sustainability.

ISPOs governance capacity and smallholders

Almost half of the oil palm plantation area in Indonesia is managed by smallholders. They are generally considered a vulnerable group of producers. Their plantations are generally too small (approximately two hectares), and the productivity too low (Brandi et al. 2013) to support the smallholder's standards of living. Smallholders further have limited technical knowledge, resulting in the inappropriate use of fertilizers (Brandi et al. 2013), they are not well-organized (they operate individually), and have limited access to the market, credit, and governmental support. Even after becoming RSPO certified, Indonesian palm oil smallholders remain vulnerable and their livelihoods do not seem to become substantially more sustainable (Hidayat et al. 2015). The question is whether ISPO will be able to improve the smallholders' situation for the better.

Most of the governance challenges identified above also apply to smallholders. It can even be considered a more profound challenge to reach millions of smallholders compared to thousands of companies. Especially if certification bodies lack man-power and resources and when a lack of clear and operational rules may open opportunities for a passive attitude. Although ISPO limits the number of criteria for smallholders (compared to the criteria for companies) it does not diversify its strategy for smallholders. This may neglect context specific problems or difficulties the smallholders are confronted with, or existing social relations shaping smallholders' response toward ISPO, further contributing to difficulties in the implementation of ISPO.

One of these issues regards ISPO's PnC for independent smallholders (point 2.2.9) that rule out middlemen from the palm oil supply chain. The procedure says that smallholders' FFB should be sold directly to companies. This goes against traditional, deep rooted traditions in which middlemen play an important role in the palm oil value chain; not only because of existing social relations, but also because middlemen directly pay after transactions and arrange the transport of FFB. Exclusion of middlemen, therefore, may lead to resistance to ISPO on behalf of the smallholders, further challenging the implementation of ISPO.

Moreover, we observe another difficulty for smallholders to comply with ISPO, related to the various forms of farmer organizations existing in Indonesia (see Ibnu et al. 2016), including associations, farmer groups (GAPOKTAN) and cooperatives. ISPO requires smallholders to be organized under a cooperative, which implies that farmers

currently belonging to a farmer group (GAPOKTAN) or association have to expand or change their organizational membership. Changing membership from farmer groups and associations to cooperatives implies the determination of social relations. This may also imply an increase in tax payments and more complicated procedures regarding tax payment and FFB selling contracts. Moreover, cooperatives are (currently) not necessarily available in each region.

Further we learnt that the implementation of ISPO may run the risk of increasing the gap between rich and poor farmers. This follows from the obligation for oil palm companies to buy at least 70% of their FFB from ISPO certified plantations in 2020. Although this may be positive for the certified farmers, who can relatively easily adopt and afford ISPO certification, it may marginalize the non-certified smallholders. The latter may face difficulties in selling their FFB leading to more income insecurity and hardship. Meeting ISPO's objectives for smallholders can therefore be considered even more challenging than meeting the objectives for companies.

Conclusions

Indonesia is one of the first Southern countries which developed public standards and certification schemes for agricultural commodities in a reaction to private sustainability standards and certifications. This paper analyzed the potential of the Indonesian standard to bring about a sustainable change in palm oil production. Therefore, we developed an evaluation tool based on the concept of governance capacity. We both looked at the potential of ISPO to realize its own objectives and its potential contribution to solving palm oil-related problems. Both parts of our analysis reveal serious doubts. Although we observe that ISPO set a process of change in motion, it still faces tremendous governance challenges given the fact that thousands of companies and (in the near future) millions of smallholders need to find their way through ISPO's certification process. Compared to private standards (e.g., RSPO), which are voluntary and have low sanction opportunities (e.g., suspension/withdrawal of the RSPO certificate), theoretically ISPO introduces a stronger sanction (e.g., revocation palm oil companies' business permit), which may potentially be more effective to end the unsustainable practices. However, the ISPO committee, who is in charge of the organization and implementation of the ISPO standard, lacks the authority to enforce the standard. ISPO was developed with the aim to bring palm oil related regulations from different ministries together in one regulatory framework. Although this would potentially create a better functioning regulatory framework, we see that the various ministries keep their autonomous responsibilities regarding

their own regulations. This does not only lead to conflicting regulations, but also to an impasse on behalf of ISPO when it comes to sanctioning or enforcing regulations. Next to ISPO's weak horizontal coordination at the national level, the decentralization process provides the committee with a weak vertical coordination capacity, as local level governments are rather autonomous in their agricultural policies. Because of different interests this seems to hamper compliance with objectives and rules and a proper sanctioning of palm oil producers if necessary.

Another obstacle is the acceptance of ISPO in the global market in which actors express doubts regarding the credibility of ISPO. Part of this doubt results from ISPO's reluctance to strictly working out the sustainability ambitions regarding palm oil related problems, materialized in the lack of adequate regulations on deforestation and biodiversity loss. Here we identify a tension between formulating stricter regulations on the environmental impacts of the expansion of palm oil plantations and the Indonesian government's main target of economic expansion of the sector.

Indicative of this tension is the Indonesian governments' response to a recent (September 2014) initiative of palm oil companies who formulated their responsibility regarding sustainable development in a stricter way (called Indonesian Palm Oil Pledge; IPOPOP). Their 'zero deforestation' pledge (a ban on clearing primary, secondary and peat forests) was initially signed by the Indonesian top-four largest palm oil producers (Asia Agri, Cargill Indonesia, Golden Agri-Resources and Wilmar International). Later, Musim Mas and PT Astra Agro Lestari also joined. However, instead of leveraging this initiative in the process of sustainable change, the government claimed that IPOPOP infringes on the government's authority to set standards and may constitute a cartel dominated by foreign interests. The government also claims that IPOPOP is not in line with Indonesian laws and too restrictive on smallholders who cannot afford to comply with a zero deforestation commitment (Gokkon 2015). Here again we see that economic considerations hamper a commitment to the environmental target (e.g., zero deforestation commitment).

To become a reliable alternative in the global market, ISPO needs a more convincing balance between sustainability objectives and economic interests, combined with a more authoritative and better equipped implementation and enforcement mechanism. Thus, in our view ISPO's certification process needs a redesign, particularly if it really aims to include millions of smallholders, who need some recompense to become convinced of the value of the scheme for them.

Considering our results, we formulate some suggestions for improvement of ISPO's performance. First, harmonization of rules regarding palm oil production and the arrangement of a so-called one map policy could be helpful. A

one-map policy refers to an overarching meta-governance framework applied by the different ministries. All government agencies should then use this framework when designing sectoral rules and formulating policies. However, an alternative might be the establishment of a meta-governing institution, independent from a specific ministry, and with a direct mandate to the president to manage the palm oil sector in Indonesia. Although very different from the current situation, such an institution is not entirely new. It has existed in Indonesia for corruption eradication (KPK) with the argumentation that eradication of corruption is an important issue for the entire Indonesian society. It may be reasonable to provide ISPO with a similar status because palm oil can be regarded as an important cross-sectoral commodity, proven by the involvement of the Ministry of Agriculture, the Ministry of Forestry, the Ministry of Spatial Planning, and the Ministry of Home Affairs, as well as local governments. Such an independent ISPO commission does not have to be entirely governmental-driven and may also exist of other actors, such as NGOs, and experts, which may increase external legitimacy (see Schouten and Bitzer 2015) and therefore improve recognition particularly from Northern consumers.

Second, we suggest creating learning forums to accommodate different actors' knowledge and experiences with ISPO. A multi-stakeholder forum could be an avenue for private actors, NGOs, experts, local governments, ISPO implementers (i.e., certification bodies, consultants and training institution) and palm oil related ministries to express their views as a feedback for the improvement of the ISPO system and regulations. The additional benefit of such a forum may be that actors engage themselves in a process of social learning, overcome or reduce the lack of shared values and increase concerted actions. This forum also facilitates discussion about rules, regulations and their implementation in the field to minimize conflicting perceptions between auditors.

Third, given that different types of smallholders may deal differently with ISPO. Not all smallholders may be equally vulnerable with regard to the changes requested by ISPO. It may therefore be worthwhile for ISPO to diversify its strategies and implementation for the different types of smallholders. Those who are most vulnerable, such as independent smallholders who own less than 2 ha plantations

with unqualified planting material and who are located in an area where a cooperative does not exist, may be given additional support to prevent marginalization. Strengthening their locally based agricultural organization is the most important factor. Provision of planting material, credit for replanting, simultaneously with an income diversification program, seem to be necessary to bring the most vulnerable group in the ISPO scheme.

To conclude, this study is an early attempt to inform about the stakeholders' view on the potential of ISPO to contribute to solving sustainability problems. Collecting and presenting information on such a sensitive topic is challenging, particularly if stakeholders feel that providing information may adversely impact them, for example, because negative campaigns influence the palm oil companies' image. We are fully aware of this and we particularly addressed this issue by performing interviews with, and presenting the results from, a balanced representation of actors involved. In general, public initiatives for sustainability still use the same channels to induce the sustainable changes as private initiatives, therefore we doubt whether they will succeed to bring a quicker systemic change than the private initiatives.

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Appendix 1

See Fig. 1.

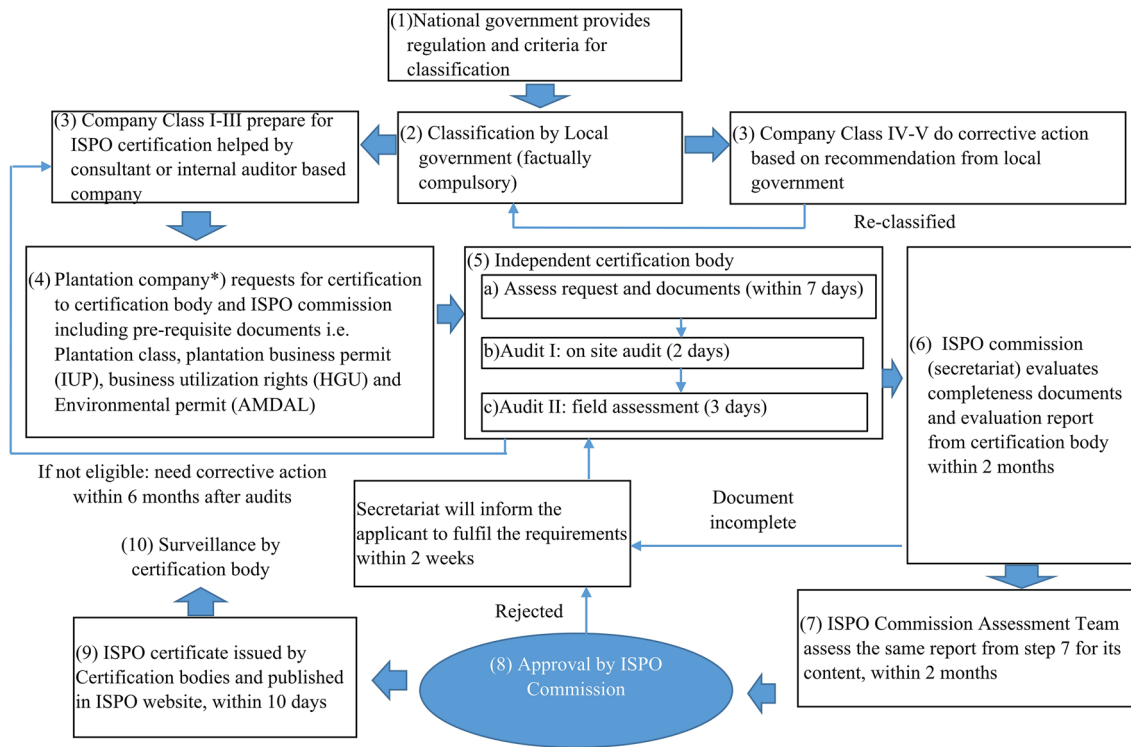


Fig. 1 Flowchart of ISPO certification process

Appendix 2

See Fig. 2.

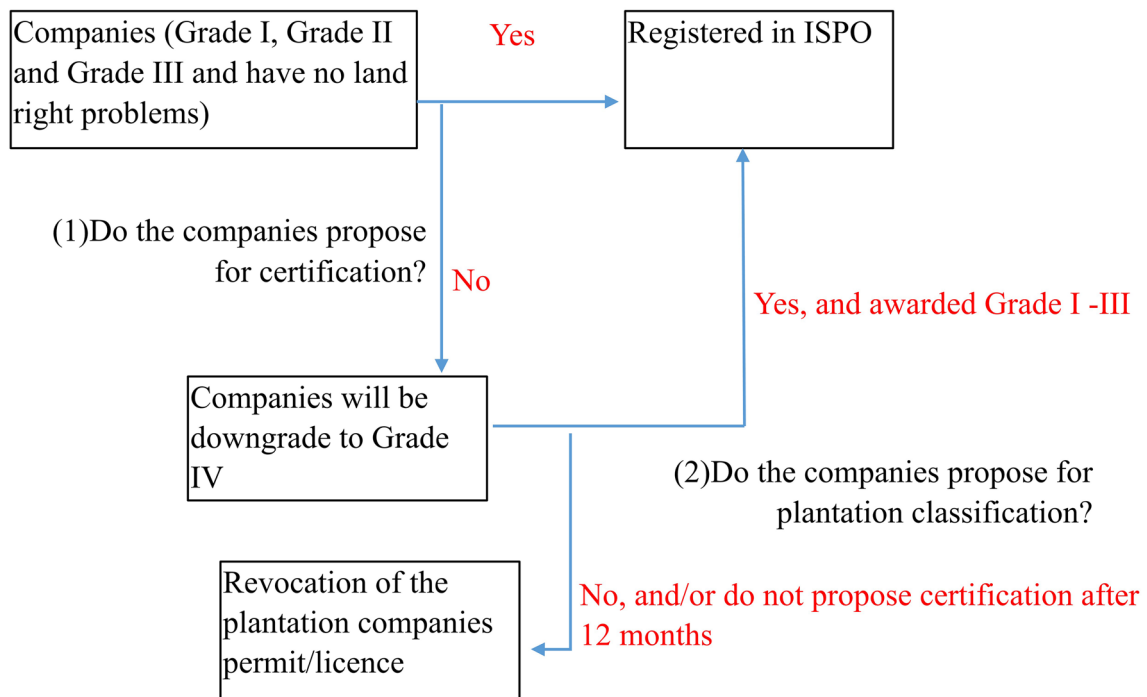


Fig. 2 Sanction mechanism of ISPO

Appendix 3

See Fig. 3.

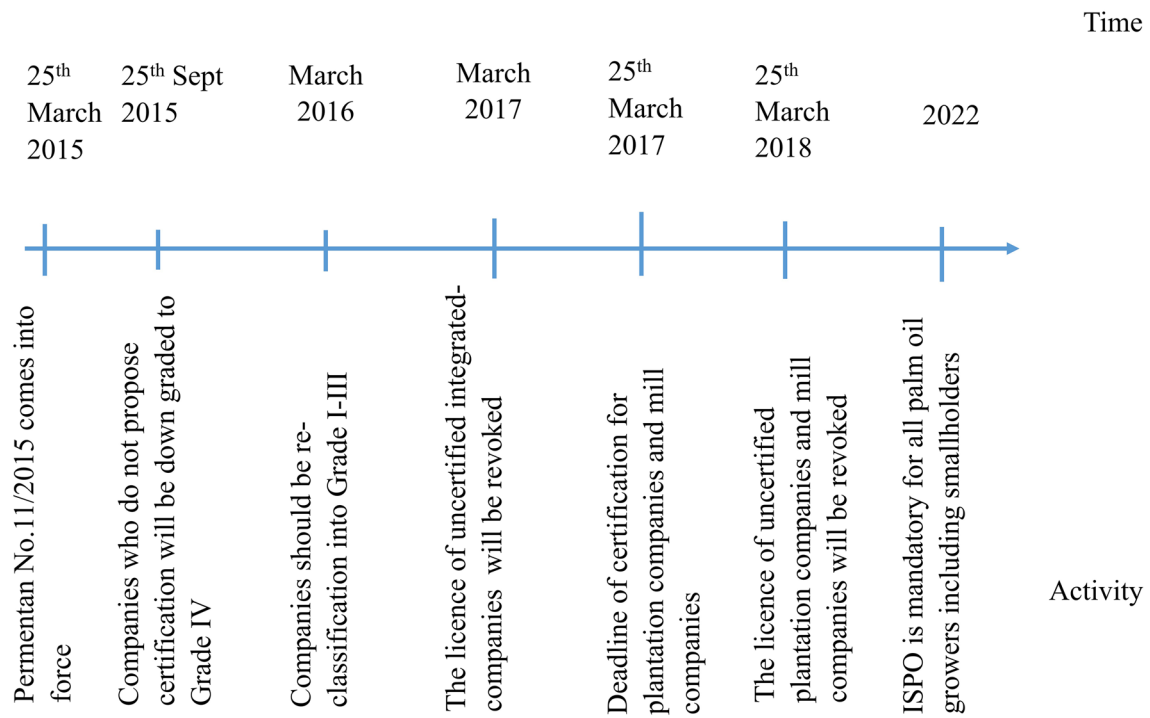


Fig. 3 Time line of ISPO implementation

Appendix 4

See Fig. 4.

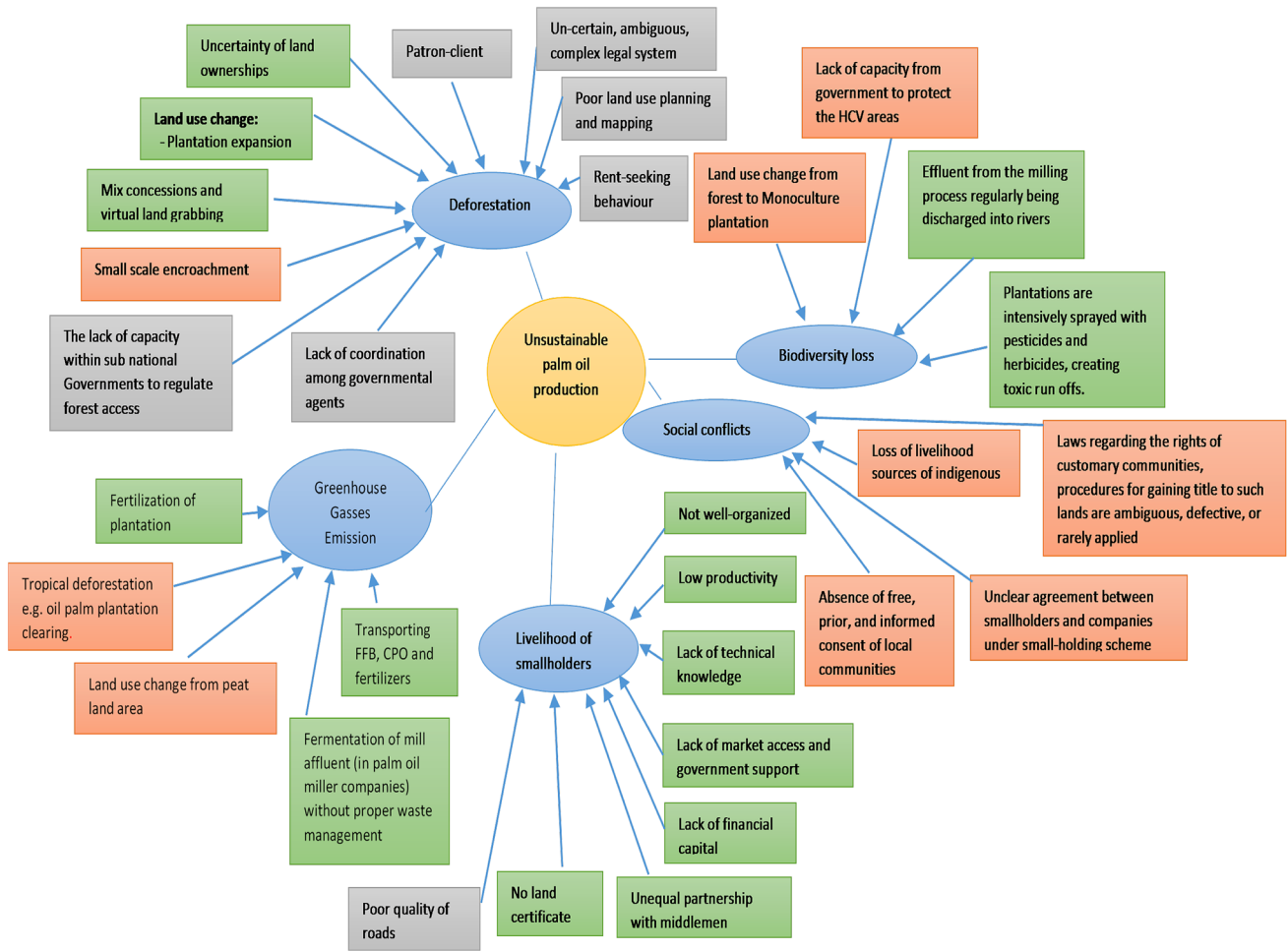


Fig. 4 Cause-effect diagram of sustainability problems associated with the expansion of palm oil: Adapted to the Indonesian context

Appendix 5

See Table 2.

Table 2 Example of results of CAQDA analysis

Family 1	Family 2	Coding	Quotations	Example of the quotations in English
Availability of resources	Right actors quantity	Enough people in	4	11 Certification bodies are enough already, however, if there are more institutions proposed to be part of ISPO certification body, we (ISPO commission) will accept it as long as the institution has been approved by ISPO evaluation team
Availability of resources		Not enough people in	20, ISPO has too limited auditors, compared to palm oil companies that have to be audited More than one month is needed to audit one palm oil company. That is the reason behind the extended of ISPO's target to certified all Indonesian palm oil companies....
Availability of resources	Money	Enough budget	4 So, there is no budget problem for ISPO ISPO secretariat should have maybe IDR 6–7 billion and up to now government still able to provide that
Availability of resources		Not enough budget	15	We know that the government has a limited budget particularly for estate crop related programs. Only 10 billion is not enough, we need hundreds of billions to implement all those things
Market context	Market acceptance	Recognized in global market	1	So far, Indonesian palm oil export run well. Especially to India. For India, cheap price is the most important. Although they also aware of sustainability, but price is considered a priority
Market context		Not recognized in global market (yet)	23	Up to now, ISPO has not been recognized as much as RSPO. I think that it is a challenge for ISPO to show its credibility as sustainability standard scheme....
Clarity of rules	Clear rules	Clear rules	16	Rule and regulations are clear as it is based on national and local rules and regulations
Clarity of rules		Not clear rules	22	.. ISPO rule says if oil palm trees have been planted more than 4 years along a river, we can keep it, later after replanting period, it should not be planted and conserved, it says in both of Agricultural Ministry Regulation No. 19/2011 and, the new one, Agricultural Ministry Regulation No. 11/2015, so from which year is it 4 years, 2011 or 2015

Table 2 (continued)

Family 1	Family 2	Coding	Quotations	Example of the quotations in English
Clarity of rules	Rules congruence	Conflicted rules	17 and in Criteria 2.4. Based on Decree No. 39/2014, companies are obliged to cultivate all concessions ea technically feasible to be planted. And HCV is technically and economically feasible to be planted. On the otherhand Ministry of Spatial Planning enforced <i>Surat Edaran</i> No. 10/2015 recognizes HCV and require companies to conserve HCV
Clarity of rules		Rules are congruent	5	Yes the rules are inline with other Ministries, as ISPO is not only aregulation from the Ministry of Agriculture but also a collection of regulations from different ministries including the Ministry of Forestry and Environment and the Ministry of Spatial Planning
Interaction of actor involved	Authority	Lack of authority	83 Monitoring and supervision is important for ISPO implementation... but enforcement of sanctions is also important.. ISPO says to revoke the license of there is non-compliance. Which license is that? not ISPO, but Regent or <i>Walikota/Bupati</i> who has the authority to revoke plantation licenses
Interaction of actor involved		Enough authority	3	... well.. With recommendation resulting from monitoring and supervision of provincial or district estate crop plantation office, it is not possible that the sanction can be enforced

References

- Abood, S.A., J.S.H. Lee, Z. Burivalova, J. Garcia-Ulloa, and L.P. Koh. 2015. Relative contributions of the logging, fiber, oil palm, and mining industries to forest loss in Indonesia. *Conservation Letters* 8 (1): 58–67. doi:10.1111/conl.12103.
- Ascher, W. 2000. Understanding why government in developing countries waste natural resources. *Environment: Science and Policy for Sustainable Development* 42 (2): 8–18.
- Austin, E.J., J. Willock, I.J. Deary, G.J. Gibson, J.B. Dent, G. Edwards-Jones, O. Morgan, R. Grieve, and A. Sutherland. 1998. Empirical models of farmer behaviour using psychological, social and economic variables. Part I: Linear modelling. *Agricultural Systems* 58 (2): 203–224.
- Bitzer, V., and P. Glasbergen. 2015. Business–NGO partnerships in global value chains: Part of the solution or part of the problem of sustainable change? *Current Opinion in Environmental Sustainability* 12: 35–40. doi:10.1016/j.cosust.2014.08.012.
- Börzel, T.A. 1997. What's so special about policy networks? An exploration of the concept and its usefulness in studying European governance. *European Integration online Papers (EIoP)* 1 (16). <http://eiop.or.at/eiop/pdf/1997-016.pdf>. Accessed 10 February 2016.
- Brandi, C., T. Cabani, C. Hosang, S. Schirmbeck, L. Westermann, and H. Wiese. 2013. *Sustainability certification in the Indonesian palm oil sector: Benefits and challenges for smallholders*. Bonn: Deutsches Institut für Entwicklungspolitik (DIE).
- Caffyn, A., and G. Jobbins. 2003. Governance capacity and stakeholder interactions in the development and management of coastal tourism: Examples from Morocco and Tunisia. *Journal of Sustainable Tourism* 11 (2–3): 224–245.
- Casson, A. 2000. *The hesitant boom: Indonesia's oil palm sub-sector in an era of economic crisis and political change*. CIFOR occasional paper no. 29. Bogor: Center for International Forestry Research (CIFOR).
- Cheyns, E., and L. Riisgaard. 2014. Introduction to the symposium: The exercise of power through multi-stakeholder initiatives for sustainable and its inclusion and exclusion outcomes. *Agriculture and Human Values* 31 (3): 409–423.
- Dang, T.K.P., I.J. Visseren-Hamakers, and B. Arts. 2015. A framework for assessing governance capacity: An illustration from Vietnam's forestry reforms. *Environment and Planning C: Government and Policy* 0 (0): 1–21. doi:10.1177/0263774X15598325.
- Dixon, K.D. 2016. Indonesia's palm oil expansion and further contribution to economic fragility. Senior Project Spring 2016, Paper 239. http://digitalcommons.bard.edu/senproj_s2016/239/. Accessed 18 March 2016.
- FAO. 2014. *Global forest resources assessment 2015: Country report Indonesia*. Rome: Food and Agriculture Organization (FAO). <http://www.fao.org/3/a-az239e.pdf>. Accessed 24 June 2016.

- Fargione, J., J. Hill, D. Tilman, S. Polasky, and P. Hawthorne. 2008. Land clearing and the biofuel carbon debt. *Science* 319 (5867): 1235–1238.
- Firman, T. 2009. Decentralization reform and local-government proliferation in Indonesia: Towards a fragmentation of regional development. *Review of Urban and Regional Development Studies* 21 (2–3): 143–157.
- Fitzherbert, E.B., M.J. Struebig, A. Morel, F. Danielsen, C.A. Bruhl, P.F. Donald, and B. Phalan. 2008. How will oil palm expansion affect biodiversity? *Trends in Ecology and Evolution* 23 (10): 538–545. doi:10.1016/j.tree.2008.06.012.
- Gerber, J.F. 2011. Conflicts over industrial tree plantations in the South: Who, how and why? *Global Environmental Change* 21 (1): 165–176.
- Glasbergen, P., and G. Schouten. 2015. Transformative capacities of global private sustainability standards: A reflection on scenarios in the field of agricultural commodities. *The Journal of Corporate Citizenship* 58: 85–101. doi:10.9774/GLEAF.4700.2015.ju.00010.
- Gokkon, B. 2015. *Sustainable pledge proves on obstacle for government hungry for more palm oil*. Jakarta: Globe. <http://jakartaglobe.id/featured-2/sustainability-pledge-proves-obstacle-government-hungry-palm-oil/>. Accessed 21 March 2017.
- González, S., and P. Healey. 2005. A sociological institutionalist approach to the study of innovation in governance capacity. *Urban Studies* 42 (11): 2055–2069.
- Gunawan, I., M.A. Nurdin, I. Hanu, Ahmady, H. Nasution, N. Achmad, M.S. Sanuddin, and A. Rahmawati. 2015. *Mencari Keadilan dari Industri Sawit Indonesia*. Bogor: Serikat Petani Kelapa Sawit.
- Hadiz, V.R. 2004. Decentralization and democracy in Indonesia: A critique of neo-institutionalist perspectives. *Development and Change* 35 (4): 697–718.
- Hanu, M.A. 2015. *Fair partnership by oil palm smallholders, Indonesia*. Bogor: Oil Palm Smallholders Union.
- Hanu, M.A., and M. Sadjli. 2013. *Market transformation by oil palm smallholders*. Bogor: Oil Palm Smallholders Union.
- Hidayat, N.K., P. Glasbergen, and A. Offermans. 2015. Sustainability certification and palm oil smallholders' livelihood: A comparison between scheme smallholders and independent smallholders in Indonesia. *International Food and Agribusiness Management Review* 18 (3): 25–48.
- Hidayat, N.K., A. Offermans, and P. Glasbergen. 2016. On the profitability of sustainability certification: An analysis among Indonesian palm oil smallholders. *Journal of Economics and Sustainable Development* 7 (18): 45–62.
- Hospes, O. 2014. Marking the success or end of global multi-stakeholder governance? The rise of national sustainability standards in Indonesia and Brazil for palm oil and soy. *Agriculture and Human Values* 31 (3): 425–437. doi:10.1007/s10460-014-9511-9.
- Howlett, M., and J. Rayner. 2006. Globalization and governance capacity: Explaining divergence in national forest programs as instances of "next-generation" regulation in Canada and Europe. *Governance: An International Journal of Policy, Administration, and Institutions* 19 (2): 251–275.
- Ibnu, M., A. Offermans, and P. Glasbergen. 2016. *Certification and farmer organization in the Indonesian coffee sector: Benefits from a smallholder point-of-view*. Paper presented at the 22nd International Sustainable Development Research Society Conference. Lisbon. 13–15 July 2016.
- InfoSawit. 2016. *Aktivitas ilegal perdagangan CPO masih marak di Riau*. <http://www.infosawit.com/news/4985/aktivitas-ilegal-perdagangan-cpo-masih-marak-di-riau->. Accessed 8 August 2016.
- InPOP. 2015. Indonesian Palm Oil Platform (InPOP) Newsletter 01 June. <http://www.foksbi.id/en/news/read/06-16-2015-newsletter-jun-2015>. Accessed 13 January 2017.
- IPOCC. 2014. *Indonesia sustainable palm oil handbook 2014*. Jakarta: Indonesia Palm Oil Customer Care (IPOCC).
- Jong, H.N. 2016. Govt to boost palm oil sustainability as result of foreign pressure. The Jakarta Post. <http://www.thejakartapost.com/news/2016/08/12/govt-boost-palm-oil-sustainability-result-foreign-pressure.html>. Accessed 21 February 2017.
- Knill, C., and D. Lehmkuhl. 2002. Private actors and the state: Internationalization and changing pattern of governance. *Governance: An International Journal of Policy, Administration, and Institutions* 15 (1): 41–63.
- Koh, L.P., and D.S. Wilcove. 2009. Oil palm: Disinformation enables deforestation. *Trend in Ecology and Evolution* 24 (2): 67–68.
- Kolstad, I., and T. Søreide. 2009. Corruption in natural resource management: Implications for policy makers. *Resources Policy* 34 (4): 214–226.
- Lancaster, C., and P.J. Ras. 2012. *Making both ends meet: On practices of sustainable development governance strategies in the South African-European table grape supply chain*. PhD Dissertation, Department of Geosciences. Utrecht: University of Utrecht.
- Lutfi, M. 2014. *Hasil diplomasi perdagangan sawit di Eropa*. Jakarta: Kementerian Perdagangan RI.
- Marti, S. 2008. *Losing ground: The human rights impacts of oil palm plantation expansion in Indonesia*. London: Friend of Earth, LifeMosaic and SawitWatch. <http://www.foei.org/wp-content/uploads/2014/08/losingground.pdf>. Accessed 28 November 2016.
- Meijaard, E., D. Sheil, R. Nasi, D. Augeri, B. Rosenbaum, D. Iskandar, T. Setyawati, M. Lammertink, I. Rachmatika, A. Wong, T. Soehartono, S. Stanley, T. O'Brien. 2005. *Life after logging: Reconciling wildlife conservation and production forestry in Indonesian Borneo*. Bogor: Center for International Forestry Research (CIFOR).
- Mulyani, M., and P. Jepson. 2013. REDD + and forest governance in Indonesia: A multistakeholder study of perceived challenges and opportunities. *The Journal of Environment and Development* 22 (3): 261–283.
- Nellemann, C., L. Miles, B.P. Kaltenborn, M. Virtue, and H. Ahlenius. 2007. *The last stand of the orangutan—State of emergency: Illegal logging, fire and palm oil in Indonesia's National Parks*. Arenal: United Nations Environment Programme (UNEP).
- Obidzinski, K., R. Andriani, H. Komarudin, and A. Andrianto. 2012. Environmental and social impacts of oil palm plantations and their implications for biofuel production in Indonesia. *Ecology and Society* 17 (1): 25. doi:10.5751/es-04775-170125.
- Partzsch, L. 2011. The legitimacy of biofuel certification. *Agriculture and Human Values* 28 (3): 413–425.
- Rist, L., L. Feintrenie, and P. Levang. 2010. The livelihood impacts of oil palm: Smallholders in Indonesia. *Biodiversity and Conservation* 19 (4): 1009–1024. doi:10.1007/s10531-010-9815-z.
- Rival, A., and P. Levang. 2014. *Palms of controversies: Oil palm and development challenges*. Bogor: Center for International Forestry Research (CIFOR).
- Ruyschaert, D., and D. Salles. 2014. Towards global voluntary standards: Questioning the effectiveness in attaining conservation goals: The case of the Roundtable on Sustainable Palm Oil (RSPO). *Ecological Economics* 107: 438–446. doi:10.1016/j.ecolecon.2014.09.016.
- Sabatier, P., and D. Mazmanian. 1979. The conditions of effective implementation: A guide to accomplishing policy objectives. *Policy Analysis* 5 (4): 481–504.
- Schneider, A., and H. Ingram. 1990. Behavioral assumptions of policy tools. *The Journal of Politics* 52 (2): 510–529.

- Schouten, G., and V. Bitzer. 2015. The emergence of Southern standards in agricultural value chains: A new trend in sustainability governance? *Ecological Economics* 120: 175–184.
- Schouten, G., and P. Glasbergen. 2011. Creating legitimacy in global private governance: The case of the roundtable on sustainable palm oil. *Ecological Economics* 70 (11): 1891–1899. doi:10.1016/j.ecolecon.2011.03.012.
- Schouten, G., and P. Glasbergen. 2012. Private multi-stakeholder governance in the agricultural market place: An analysis of legitimization processes of the roundtables on sustainable palm oil and responsible soy. *International Food and Agribusiness Management Review* 15 (B): 53–78.
- Sheil, D., A. Casson, E. Meijaard, M. van Noordwijk, J. Gaskell, J. Sunderland-Groves, K. Wertz, and M. Kanninen. 2009. *The impacts and opportunities of oil palm in Southeast Asia: What do we know and what do we need to know? CIFOR occasional paper no. 51*. Bogor: Center for International Forestry Research (CIFOR).
- Silva-Castañeda, L. 2012. A forest of evidence: Third-party certification and multiple forms of proof—a case study of oil palm plantations in Indonesia. *Agriculture and Human Values* 29 (3): 361–370. doi:10.1007/s10460-012-9358-x.
- Suharto, R. 2010. Why Indonesia needs ISPO. The Jakarta Post. <http://www.thejakartapost.com/news/2010/12/02/why-indonesia-needs-ispo.html>. Accessed 26 March 2017.
- Suharto, R. 2015. Discussion series ISPO: Perkembangan ISPO dan akses pasar [Power Point].
- Suharto, R., K. Husein, E. Sartono, D. Kusumadewi, A. Darussamin, D. Nedyasari, D. Riskanto, P. Hariyadi, A. Rahman, T. Uno, P. Gillespie, C. Arianto, and R. Prasajo. 2015. *Studi Bersama Persamaan dan Perbedaan Sistem Sertifikasi ISPO dan RSPO*. Jakarta: Kementerian Pertanian Republik Indonesia dan Roundtable on Sustainable Palm Oil (RSPO).
- Tacconi, L. 2007. Decentralization, forests and livelihoods: Theory and narrative. *Global Environmental Change* 17 (3–4): 338–348. doi:10.1016/j.gloenvcha.2007.01.002.
- Varkkey, H. 2013. Oil palm plantations and transboundary haze: Patronage networks and land licensing in Indonesia's peatlands. *Wetlands* 33 (4): 679–690.
- Von Geibler, J. 2013. Market-based governance for sustainability in value chains: Conditions for successful standard setting in the palm oil sector. *Journal of Cleaner Production* 56: 39–53. doi:10.1016/j.jclepro.2012.08.027.
- Wakker, E. 2005. *Greasy palms: The social and ecological impacts of large-scale oil palm plantation development in Southeast Asia*. London: Friends of the Earth. https://www.foe.co.uk/sites/default/files/downloads/greasy_palms_impacts.pdf. Accessed 18 August 2016.
- Wijaya, A., and P. Glasbergen. 2016. Toward a new scenario in agricultural sustainability certification? The response of the Indonesian national government to private certification. *The Journal of Environment and Development* 25 (2): 219–246.
- Yaap, B., and G. Paoli. 2014. *A Comparison of leading palm oil certification standards applied in Indonesia: Toward defining emerging norms of good practices*. Bogor: Daemeter.
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