



Barriers to smallholder RSPO certification

A science-for-policy paper by the SEnSOR programme

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Key messages

1. **Lack of smallholder organization** and the **costs** and **skills** needed to meet RSPO's **organizational demands** hamper smallholder certification, especially of independent smallholders.
2. Proving **compliance with laws and regulation (principle 2)** was difficult in smallholder certification projects. Where smallholders do not possess the **necessary legal documents**, obtaining those is **costly** and **time-consuming**, and can be impossible when land use is contested.
3. Most uncertified independent smallholders do not **use appropriate best practices** or **keep records (principle 4)**. Adoption of best practices proved both **crucial** and **challenging** for smallholder certification projects. These challenges are linked to smallholders' **motivation** and to **wider agronomic** and **institutional constraints**.
4. Smallholders **lack the skills** and knowledge to conduct **HCV assessments** and **digital mappings**. Little is known about conservation of wildlife and HCV areas by certified smallholders (**principle 5**).
5. Requirements about conditions that cannot easily be changed, notably prior land use and availability of legal documents, led to **exclusion of an estimated 5-10% of farmers** from certified groups. Larger numbers of smallholders are expected to be excluded when the whole smallholder population is considered.
6. Smallholders need **organizational and technical support** to meet RSPO requirements, while **funding** and **capacity** to provide this support is **limited**.
7. **Certification costs** in combination with **low CSPO uptake** and **low premium prices** hamper smallholder certification. **Smallholders' motivation** to comply with certification requirements is hampered by limited **visible benefits**, while time and/or financial investment are required.
8. **Consideration** of smallholders' needs and perspectives in **designing rules** and **procedures at the RSPO** are **essential** to spur smallholder engagement and certification.

Scope of the report

In this paper the most important barriers to RSPO certification of smallholders will be outlined, with a special focus on independent smallholders. The paper will discuss challenges smallholders encounter in complying with RSPO’s Principles and Criteria (P&C) and in meeting RSPO’s organizational requirements, as well as structural issues underlying these challenges. As this paper focuses on barriers and difficulties, less emphasis is put on success stories and positive effects of certification projects. Potential benefits of RSPO certification for smallholders and the evidence of those are addressed in the science-for-policy paper Costs and benefits of RSPO certification for independent smallholders (Rietberg and Slingerland 2016). The paper primarily focuses on Indonesia, as it is the largest producer of oil palm and most studies have been conducted there, but also draws on material from Thailand, Malaysia and Ghana.

This policy paper provides an answer to the question: What are the main barriers to RSPO certification for smallholders? Three methods were used to answer this question. Literature was reviewed to gain insight in barriers to smallholder RSPO certification and smallholder yield intensification. Audit reports of RSPO certified independent smallholders were analysed to obtain information about compliance challenges. In-depth interviews were held with seven implementers of certification projects working in Indonesia, Malaysia Thailand and Ghana. An extensive description of the methods used is given in Appendix I.

Brandi et al. (2015) and Loconto and Dankers (2014) make a distinction between the content of a certification standard and the context in which it is implemented. The content comprises of the strictness of the technical requirements of the standards; the organizational demands of the verification system; and auxiliary services of the standards scheme. The context consists of the setting in which this content is implemented. We assume a basic knowledge of the content of the RSPO standard and do not discuss this in detail. Instead, we focus on the problems that arise through the implementation of the content in the specific contexts of smallholder oil palm production. After the rationale, the challenges smallholders face in meeting RSPOs organizational demands are discussed. These are followed by a section addressing compliance challenges with specific P&C. The section thereafter describes underlying causes and barriers to smallholder certification, followed by a reflection on a few important items of debate.

Box 1. LIST OF ACRONYMS	
CSPO	Certified Sustainable Palm Oil
HCV	High Conservation Value
ICS	Internal Control System
NGO	Non Governmental Organization
P&C	Principles and Criteria
RSPO	Roundtable on Sustainable Palm Oil
RSSF	RSPO Smallholder Support Fund

Rationale

In order to improve the environmental, economic and social sustainability of oil palm, the RSPO has developed a system of oil palm certification, based on a standard and third-party verification. While the RSPO standard was primarily targeting oil palm plantations operated by companies, in 2005 a Task Force on Smallholders was created and mandated to adjust the RSPO standard to better fit the needs and production system of smallholders.

Globally, there are an estimated 3 million oil palm smallholders who produce 40% of palm oil produced worldwide (RSPO 2015). Access to RSPO-certification for those smallholders is important for two main reasons: first, it may enhance the sustainability of their production system, and second, it may be a prerequisite for market access if RSPO-certified palm oil will become the norm. Therefore, it is important to investigate entry barriers and other possible impediments to certification different groups of oil palm smallholders are facing.

RSPO has made efforts to overcome hurdles to smallholder certification, such as the establishment of a smallholder support fund (RSSF), providing funding to support smallholders in achieving certification (Verburg 2015). Other efforts include the existence of the smallholder working group and the development of guidance documents. Yet, the number of certified smallholders is still limited. Therefore, knowledge on barriers to smallholder certification is urgently needed, as well as a strategy to address these barriers. The need for a clear vision on smallholder involvement in the RSPO was acknowledged by the General Assembly. In November 2015, the General Assembly adopted a resolution that stated that “the RSPO develops within a year a comprehensive strategy and a subsequent action plan that mobilises the full potential of smallholders...”. This paper aims to inform discussions on the development of this smallholder strategy.



Indonesian smallholders weighing fresh fruit bunches

Smallholder organizational demands

Smallholders cannot be certified individually but need to be organized in a group. Specifically, this group should have a group manager and an internal control system (ICS), a body that should ensure compliance of all group members with the P&C. The efforts needed to meet these requirements depend on the existing organizational structures.

Based on research in Sumatra, Indonesia, Brandi et al. (2015) identified lack of smallholder organization as “the most essential barrier” to independent smallholder certification. While around 45% of independent smallholders were members of a producer group, most of these groups provided limited services like inputs, credit or training and showed little ambition to improve their services (Brandi et al. 2015, Molenaar et al. 2013). More importantly, larger and better equipped cooperatives were absent (Brandi et al. 2015).

In contrast to independent smallholders, scheme smallholders are usually already organized into groups (Brandi et al. 2015, Molenaar et al. 2013). Research findings about the functioning of these groups are mixed. Whereas Van Opijnen, Brinkmann, and Meekers (2013) stress the need for improved organization of scheme smallholders into groups in order to become certified, Brandi et al. (2015) found that well-functioning cooperatives existed prior to certification and played an important role in the certification of scheme smallholders.

Non-governmental organizations (NGOs) provided independent smallholders with considerable support to fulfil RSPO’s organizational requirements through projects aiming for smallholder certificationⁱ (Brandi et al., 2015). Activities included forming a group, setting up an ICS, supporting the selection of a leader and people in ICS, and registering as a legal entity. Organization establishment, including trainings, involved high costs (Brandi et al. 2015, Rietberg and Slingerland 2016).

Furthermore, finding skilled and motivated personnel to take up key positions within the organization was challenging in several cases, as the tasks are seen as difficult and require additional workⁱⁱ (Brandi et al. 2015). On a more fundamental level, group formation may prove difficult when there are large inequalities among smallholders, or when smallholders have a negative attitude towards groups because they reduce their independence (Lee et al. 2011). Drawing on the structure, functioning and authority of existing groups can enhance the pace and ease of setting up an ICS and meeting RSPO’s requirements. Yet, this can also cause friction, as happened in Ukui (Ponte 2015).

Lack of smallholder organization and the costs and skills needed to meet RSPO’s organizational demands hamper smallholder certification, especially of independent smallholders.

Compliance with RSPO P&Cs

Certified smallholders were able to meet RSPOs requirements and comply with the P&C. Yet, compliance with specific P&C may have been challenging. In this section, first, an overview of the main P&C that cause compliance challenges will be given. Each of the criteria that cause problems will be elaborated on thereafter. Oil palm smallholders are embedded in a specific agro-ecological, socio-cultural and politico-economic context. Therefore, the compliance challenges should not be considered in isolation, but in relation to the specific environment in which smallholders operate.

Box 2. MAJOR NON-CONFORMITIES, MINOR-NON-CONFORMITIES AND OBSERVATIONS

69 of 138 RSPO indicators have been marked “major indicators”. Compliance with these indicators is compulsory and noncompliance will result in a major nonconformity. Such nonconformity has to be addressed within 60 days after the assessment. Else, the certificate will be withdrawn. Noncompliance with another indicator will result in a minor nonconformity. These have to be addressed before the next surveillance audit, else, they will be changed into a major nonconformity (RSPO 2007). Observations are remarks by the auditing team that are not a nonconformity but could become one if left unattended (Lord and Durman 2013). We only included negative observations in our analysis.

Compliance challenges: overview

In ten (re)certification reports of independent smallholder groups (2012-2014), 56 compliance issues were observed in total. These included 9 major non-conformities, 25 minor non-conformities and 22 observations (Box 2). These had to do with incomplete, incorrect or absent monitoring (17), with improper implementation (25) and with flawed documentation (14, Figure 1, Appendix II). These issues related to 25 different criteria. While a wide variation in specific criteria that cause compliance problems is observed, most issues of non-compliance are reported in relation to three principles: use of appropriate best practices (23 issues, principle 4), compliance with applicable laws and regulations (14 issues, principle 2), and

responsible consideration of employees and of individuals and affected communities (10 issues, principle 6, FIGURE 3). A detailed overview is given in Figure FIGURE 4 (Appendix II). For these certified smallholders, commitment to transparency (principle 1), to economic and financial viability (principle 3) and to continuous improvement (principle 8), and responsible development of new plantings (principle 7) caused little compliance challenges. These findings are in line with a previous study: for six groups of independent smallholdersⁱⁱⁱ, most non-compliances were found for principle 2 (specifically, 2.1) and 4 (specifically 4.5 and 4.6) (Lord and Durman 2013). Based on an analysis of 114 public summary reports, including independent smallholders, scheme smallholders and plantation estates, Lord and Dunham (2013) concluded that principle 2, 4, 5 and 6 caused most compliance issues and together accounted for 91% of the detected issues.

Chalil (2012) investigated the gap between current smallholder practices and the RSPO standard for uncertified smallholders. Based on a survey of 320 North Sumatran scheme and independent

smallholders, she found that, on average, independent smallholders did not comply with 75% of the criteria, whereas scheme smallholders did not comply with 56%. These results indicate that smallholders have to change their operations considerably in order to comply with RSPO P&C.

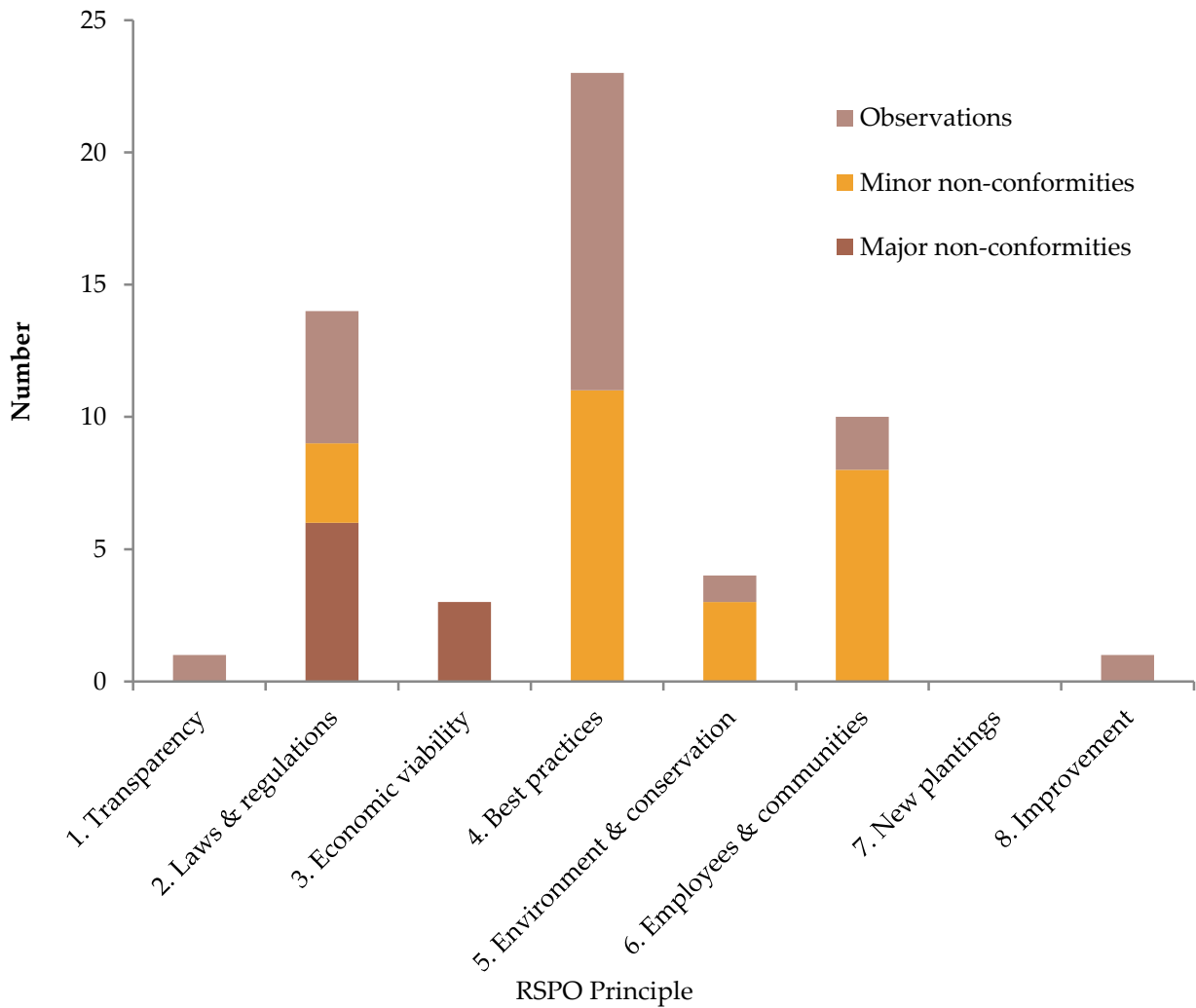


FIGURE 1. NUMBER OF MAJOR NON-CONFORMITIES, MINOR NON-CONFORMITIES AND OBSERVATIONS (BOX 2) PER RSPO PRINCIPLE IN 12 AUDIT REPORTS OF INDEPENDENT SMALLHOLDER GROUPS.

Legal requirements: land titles & other permits (principle 2)

Meeting the legal requirements (principle 2) was identified as an important barrier to certification^{iv} (Chalil 2012). In Indonesia, these requirements include the need for a land title, a business permit, and an environmental permit. In three cases of group certification of independent smallholders in Sumatra, obtaining these permits was expensive and time-consuming^v. Although the district government had been assigned the task of giving out these permits by the central government, they lacked the institutional capacity, knowledge and experience to do so. Furthermore, three different ministries were involved in the different permits. In one case, the NGO eventually made an agreement with the local government^{vi} (Hutabarat et al. submitted).

For individual smallholders, applying for a land title is a long and costly process in Indonesia (Brandi et al. 2015). Yet, the majority of the smallholders seems unaffected. Based on the findings of three studies in Sumatra and one in Sumatra and Kalimantan, between 57% and 77% of the smallholders had a formal land title that is accepted by the RSPO (Brandi et al. 2015, Chalil



Indonesian smallholders loading a truck with fresh fruit bunches

2012, Molenaar et al. 2013, Hutabarat, Slingerland, and Dries in progress). Although involvement in a scheme usually provides smallholders with a land title (Hutabarat, Slingerland, and Dries in progress), land titles can be problematic for scheme smallholders as well. Smallholder groups with too many land title issues were excluded from a pilot with KKPA scheme smallholders in Indonesia. Apparently, those arose because private companies had to negotiate over land with smallholders directly, without involvement of the state (Van Opijnen, Brinkmann, and Meekers 2013).

In Malaysia, independent smallholders who did not have a proper land title or business permit or were in the process of obtaining those, were excluded from the certified group. The social enterprise involved stimulated smallholders to arrange a land title and business permit, but considered it beyond its task to arrange these for the smallholders. These and other barriers were estimated to exclude approximately 10% of the smallholders from certification in the project areas^{vii}.

In Ghana, the need for land titles was considered problematic^{viii} and identified as an area in which smallholders need support^{ix}.

The requirement for a land title is challenging when tenure rights are ambiguous, when multiple claimants demand land rights, or when the title holder who is not the land user. In Thailand, degraded forest lands are issued to the poor for agricultural use, as part of a poverty reduction programme. Sales of these plots is prohibited, but nevertheless done occasionally. An estimated 5% of smallholders bought this land and could not obtain a land title^x.

Land conflicts

While land conflicts are less common in smallholder areas than in plantation estates in Indonesia (Molenaar et al. 2013), conflict is a major barrier to certification if it occurs. In two villages in Siak, Indonesia, an oil palm plantation was developed to promote economic development and improve the situation of impoverished Melayu (McCarthy, Gillespie, and Zen 2012). Initially, farmers of one of the villages did not want to engage in the oil palm project. Conflict and confusion arose when the lands within their communities, planted with oil palm, were given to smallholders in another village. Hence, these areas were excluded from the areas for which an RSPO audit was requested (Van der Ende 2013). Certification alone provides limited tools to reduce such conflicts (McCarthy 2012, McCarthy, Gillespie, and Zen 2012).

Proving compliance with laws and regulations (principle 2) was difficult in smallholder certification projects. Where smallholders do not possess the necessary legal documents, obtaining those is costly and time-consuming, and can be impossible when land use is contested.

Implementing good agricultural practices (principle 4)

Compliance with good agricultural practices (principle 4) was generally low for 320 uncertified Sumatran smallholders, and slightly better for scheme smallholders than for independent smallholders (Chalil 2012). According to the author, economic considerations prevail in smallholders' plantation management. In addition, only 12% of 1069 surveyed Indonesian smallholders received sufficient training on good agricultural practices (criteria 4.8) (Molenaar et al. 2013).

Intensive smallholder assistance and support to comply with good agricultural and environmental practice and record keeping was considered crucial for smallholder certification projects^{xi}. Enticing smallholders to implement good agricultural (principle 4) and environmental practices (principle 5) to meet RSPO requirements was considered difficult by experts, because of the need to change the mind set and habits of farmers^{xii}. In Thailand, compliance with principle 4 and 5 was complicated where plantation owners were not (full-time) farmers. In those cases, labour was outsourced to service providers or ramps unfamiliar with RSPO criteria. This could hamper certification of those plantations or compliance with RSPO P&C^{xiii}. In contrast, clear demonstrations and training materials, together with easily applicable practices, led to unproblematic adoption of good agricultural practices by smallholders in Ghana^{xiv}.

A small body of literature describes constraints to smallholder oil palm yield intensification, almost entirely based on research in Sumatra, Indonesia. Although yield intensification is not a goal of RSPO certification per se, several of these constraints explain why adoption of good agricultural practices is challenging. Scholars acknowledged that smallholder yields are constrained by both agronomic and institutional barriers. The most important agronomic barriers for smallholders include poor seedlings and planting material (Brandi et al. 2015, Molenaar et al. 2010, Woittiez et al. in review); too low harvesting frequency (Euler et al. 2016, Lee, Ghazoul, et al. 2014, Molenaar et al. 2010) and limited fertilizer use (Molenaar et al. 2010, Euler et al. 2016, Brandi et al. 2015, Woittiez et al. in review), leading to nutrient deficiencies (Woittiez, Slingerland, and Giller 2015). Finally, in the study by Euler et al. (2016), unexplained palm mortality caused suboptimal smallholder yields. Agro-environmental challenges specifically related to RSPO certification included pesticide handling (criteria 4.6) (Brandi et al. 2015) and erosion (criteria 4.3): only 15% of 1069 uncertified Indonesian smallholders applied erosion control measures (Molenaar et al. 2013).

The most important institutional constraints for yield intensification include lack of knowledge of good agricultural practice or access to training (Molenaar et al. 2010, Brandi et al. 2015, Martin et al. 2015), lack of reliable access to mills, poor physical infrastructure, limited access to appropriate inputs and credit, and lack of secure tenure, reducing farmers' willingness to invest (Molenaar et al. 2010). Lack of access to credit or capital, or limited willingness to invest, lead to under-investments in oil palm plots by smallholders (Euler et al. 2016, Brandi et al. 2015, Molenaar et al. 2010, Martin et al. 2015). Most projects aiming for smallholder certification provide trainings and knowledge about good agricultural practices, and address the relation between smallholders and mills. These projects thus potentially spur smallholder intensification by alleviating some of the institutional constraints.

Two interviewees identified the availability and price of (specific types of) fertilizer as a hurdle in relation to RSPO certification^{xv}, notably when the fresh fruit bunches price was low^{xvi}. Research

from Sub-Saharan Africa showed that farmers' willingness to invest in land management is higher when farm-gate prices are high (Koning and Smaling 2005).

Record keeping (notably principles 4, 6, 7)

Uncertified independent smallholders fall short on documentation and record keeping (e.g. criterion 4.1; 4.7; 5.1) (Chalil 2012). In certification projects, farmers were usually trained in record keeping^{xxvii}. Nevertheless, recording activities was identified as an impediment^{xxviii} and as a major challenge for farmers in Thailand^{xxix} and Indonesia (Brandi et al. 2015). Most farmers were not used to document their activities and record keeping proved notably challenging when smallholders were illiterate^{xxx}. In those cases farmers would need additional support from farm advisors or other NGO staff. An interviewee from Thailand indicated that records may not always match the agricultural management of the smallholders' plots, as "maybe 10% of [all] certified farmers" may fill out the record book only quickly prior to the visit of an auditor^{xxxi}.

Potentially, record keeping could help make farmers more aware of their practices and function as a learning tool^{xxxii}. For a minority of Malaysian smallholders, keeping records was motivating them to do better^{xxxiii}.

Most uncertified smallholders do not use appropriate best practices or keep records (principle 4). Adoption of best practices proved both crucial and challenging in smallholder certification projects. These challenges are linked to smallholders' motivation and to wider agronomic and institutional constraints.

Environmental protection & HCV requirements (principle 5, 7)

The requirements for High Conservation Value (HCV) assessments and digital mappings of smallholders, so-called shape files, were considered important hurdles in smallholder certification projects^{xxxiv}. Smallholders lacked the knowledge about HCV areas and simplified assessment methods, did not possess shape files of their plots and were little familiar with GIS tools. As a consequence, they could not fulfil the requirements by themselves and needed assistance to comply with these criteria. Such assistance was generally provided by NGOs implementing the project and/or the mill(s) involved.

A study assessing compliance with a selection of RSPO P&C of 1069 Indonesian smallholders in Indonesia revealed that compliance with regulations on prior land use (criteria 7.3) is problematic: 45% of the smallholders planted in primary forest and 20% in secondary forest (yet the study did not report whether planting took place prior to or after 2005). 7% planted on peat (Molenaar et al., 2013; p. 13-14). In the study of Chalil (2012) independent smallholders scored better on prior land use as their land came from rubber plantations whereas scheme smallholders' plots were in previously primary forest (Chalil 2012). In Indonesia, smallholders' contribution to deforestation was small (11%) compared to private enterprises' contribution (88%), but expansion rates of smallholdings were larger than those of estates (Lee, Abood, et al.

2014). Noncompliance with the regulations on prior land use lead to exclusion of a farmer or plot from certification in some cases^{xxv} and is likely to lead to exclusion in many other cases, as prior land use cannot be changed.

Conservation of wildlife and HCVs (criteria 5.2) is another area that potentially causes important compliance issues. More illegal hunting and poaching was reported in oil palm smallholdings than in plantation estates on peninsula Malaysia (Azhar et al. 2013). At the same time, greater mammal species diversity was found in oil palm smallholdings compared to plantation estates (Azhar et al. 2014), as well as greater landscape heterogeneity, providing more potential for biodiversity conservation (Azhar et al. 2015). This issue did not come to the fore during the interviews or the analysis of audit reports and requires further investigation.

Smallholders lack the skills and knowledge to conduct HCV assessments and digital mappings (principle 5). Little is known about conservation of wildlife and HCV areas by smallholders.

Requirements about conditions that cannot easily be changed, notably prior land use and availability of legal documents, led to exclusion of an estimated 5-10% of smallholders from certified groups. Larger numbers of smallholders are expected to be excluded when the whole smallholder population is considered.



Rare, threatened and endangered species are considered to be “High Conservation Value” and their habitat needs to be protected under RSPO guidelines. (photo credit: Ch’ien Lee)

Underlying causes

Several interrelated causes lie at the base of the organizational and technical challenges of smallholder certification discussed above. These will be discussed in the following section. They are grouped in three categories: knowledge and capacity, costs and benefits and RSPO functioning.

Lack of knowledge & capacity regarding RSPO certification

Smallholders and other local actors lack knowledge about RSPO and sustainability certification^{xxvi} (Van Opijnen, Brinkmann, and Meekers 2013, Brandi et al. 2015). This holds for other commodities and sustainability certificates as well (Kuit and Waarts 2014). None of the interviewees asked was aware of smallholder group certification that was initiated by smallholders themselves^{xxvii}. Smallholders' lack of knowledge is related to other barriers, most notably the need for training and support, the costs and smallholders' motivation.

Need for support

Independent smallholders lack the capacity, knowledge and skills to obtain RSPO certification by themselves. They need support in order to meet the organizational requirements of RSPO group certification, to comply with the P&C, and to bear the costs associated with certification and auditing^{xxviii} (Brandi et al. 2015, Lee et al. 2011). Specific types of support needed have been discussed in previous sections. Lack of external support was identified by Lee et al. (2011) as an important barrier to smallholder biofuel certification. Support for scheme smallholders in meeting the RSPO requirements is often provided by mills^{xxix}. Yet, mills do not always have the aspiration or resources to support smallholder farmers (Van Opijnen, Brinkmann, and Meekers 2013). In Krabi, Thailand, the project aiming at smallholder certification supported the mills in training and organizing smallholders in order to become certified^{xxx}. The need for support has led to calls for simplification of the RSPO standards, such as the following: "If we make this whole RSPO thing very easy, then [the independent smallholders] can do it with little support."^{xxxi}. Yet, others are concerned that simplification will "lower the bar" and lead to decreased impact.

Limited capacity for providing permits, training and for auditing

Limited governmental capacity to give out permits required by the RSPO was identified as a time-consuming and expensive bottleneck in Indonesia as discussed previously^{xxxii}. According to two interviewees of local Indonesian NGO's, limited NGO capacity hampers implementation of certification projects "on the ground"^{xxxiii}. One of them said his organization suffered from lack of access to information about RSPO certification, and lack of funding. Their project aiming to certify smallholders suffered from lack of insights in the costs and efforts needed to fulfil the RSPO requirements, and certification had not happened so far^{xxxiv}. Another interviewee argued that NGO projects alone will not be sufficient to certify large numbers of smallholders and that there is a need for scaling. Mills could play an important role in certifying their smallholder base^{xxxv}. The lack of local auditing capacity was experienced as a burden, notably in Thailand, where there are no accredited certification bodies^{xxxvi}.

Smallholders need organizational and technical support to meet RSPO requirements, whilst funding and capacity to provide this support is limited.

Costs of certification

The costs of certification are frequently mentioned as a hurdle for smallholder oil palm certification^{xxxvii} (Brandi et al. 2015, Hutabarat et al. submitted, Lee et al. 2011). These costs are mainly related to the external support farmers need in obtaining certification, to changes in farming practices and to third-party audits, and are described in more detail in the SEnSOR science-for-policy-paper on Costs and benefits of RSPO certification of independent smallholders (Rietberg and Slingerland 2016). Lack of funds for the external audit hampered certification of an independent smallholder group in Siak^{xxxviii}.

Mills that are RSPO members or subsidiaries of RSPO members are obliged to certify their smallholder base. They should thus also bear the costs of certification, even though their capacity or motivation to do so may be limited (Van Opijnen, Brinkmann, and Meekers 2013). RSPO's smallholder support fund (RSSF) is set-up with the goal to provide financial support to smallholder certification

Limited demand for certified oil & low premium prices

Only around half of certified sustainable palm oil is sold as such (RSPO 2014) and supply of certified sustainable palm oil has outpaced demand since the inception of the RSPO. As a consequence, GreenPalm premiums are estimated to be only 1-4% of CPO prices. These premiums are not always sufficient to cover upfront and recurrent smallholder certification costs (Rietberg and Slingerland 2016), which is also found for other labels and sectors (Kuit and Waarts 2014). Two interviewees argued that limited demand for certified palm oil and low premium prices for certified palm oil lead to lack of sufficient benefits of certification for smallholders. Lee et al. (2011) contain that developing financial incentives for smallholders is key to increasing adoption of sustainable biofuels.

Some fear that the different supply channels of RSPO certified palm oil (Box 3) will be disadvantageous for independent smallholders. So far, most independent smallholders sell certificates through GreenPalms book & claim system. However, demand is increasing for oil palm that can be traced back

BOX 3. DIFFERENT SUPPLY CHANNELS RECOGNIZED BY THE RSPO

The RSPO distinguishes four types of supply channels. First, in a book and claim system, buyers can off-set their palm oil use by buying certificates equivalent to an amount of CSPO produced. Trade of these certificates is regulated through GreenPalm, and buyers pay \$1 to GreenPalm and \$1 to the RSPO per certificate (one ton), in addition to the premium value of the certificate. In this channel, there is no physical relation between the oil palm in the product and the certified oil palm. Alternatively, in the mass balance, segregated or identity preserved channels there is a physical relation between the palm oil in the product and the CSPO. In the mass balance chain, CSPO is mixed with uncertified palm oil. In the segregated and identity preserved chains, this is not the case. All palm oil can be traced back to one (identity preserved) or several (segregated) certified supply base(s) (RSPO 2016a)

to its production location (segregated, or mass balance). There is a risk that sales of certified sustainable palm oil (CSPO) through book & claim is perceived “second class sustainability” and that smallholders will be excluded, especially those at a distance from mills. This would reduce the demand for certified palm oil from smallholders.

Lack of commitment of buyers to smallholder certification projects led to delays of several projects in Malaysia and failure of a pilot project in Indonesia (Van Opijnen, Brinkmann, and Meekers 2013).

Smallholders' motivation

Motivated smallholders are considered a requirement for successful implementation of certification^{xxxix} (Van Opijnen, Brinkmann, and Meekers 2013). Smallholder motivation is considered in site selection^{xl} and can function as a self-selection mechanism, as farmers may withdraw from certification projects or not join altogether when they consider the efforts needed to comply with RSPO P&C too large^{xli}.

Smallholders are mostly driven by economic motives to join certification projects^{xlii} (Markne 2016, Hidayat, Glasbergen, and Offermans 2015, Levin et al. 2012, Beall 2012). In addition to a price premium, they are tempted by the prospect of learning new things and improving their agronomic practices^{xliii} (Beall 2012). Other reasons to join include status^{xliv}, following a local community leader^{xlv} and fear to be left out^{xlvi}.

Most certification projects focused on yield intensification and adoption of good agricultural practices, rather than on certification alone^{xlvii}. The reasons for this were twofold: firstly, yield intensification was expected to lead to reduced deforestation and expansion of oil palm production. Secondly, increasing yields was seen as a promising option to improve farmers' livelihoods, and considered more likely to generate substantial benefits than premium prices.

Nevertheless, smallholders' motivation to make efforts for certification was hampered by the lack of clear or sufficient benefits^{xlviii} (Beall 2012). Premium prices were lower than expected or did not reach the individual smallholder at all^{xlix}. In two cases, farmers lost trust in the materialization of certification benefits because of the long time between the start of the project and the actual or expected certification^l.

Compelling smallholders, especially of senior farmers experienced in oil palm, to comply with all requirements proved difficult when they had to change their habits^{li} or when they did not see the point of implementing particular requirements (Brandi et al. 2015). Other factors that hampered smallholder motivation included the time investment needed for meetings and trainings^{lii}, the complexity of the requirements^{liii} and the distance to the mill combined with the requirement to bring fresh fruit bunches to the mill in person^{liv}.

The observed lack of smallholder' motivation to implement all requirements is in line with the incommensurability of values of upstream and downstream producers identified by McCarthy (2012). Whereas upstream producers have sustainability concerns, downstream producers have primarily economic motives (McCarthy 2012). Smallholders have different knowledge systems than the actors designing the principles, criteria and indicators (Martin et al. 2015, Markne 2016).

Certification costs in combination with low CSPO uptake and low premium prices hamper smallholder certification. Smallholders' motivation to comply with certification requirements is hampered by limited visible benefits, while time and/or financial investment are required.

Representation of & vision on smallholders at RSPO

Another root cause of the barriers to smallholder certification may be found at the RSPO itself. Several scholars have argued that smallholder voices are underrepresented at the RSPO (Cheyns 2011) and that voices of marginalized groups are silenced in the RSPO (Pichler 2013). An extensive discussion of smallholders' representation and involvement in the RSPO, however, is beyond the scope of this paper.

At the RSPO, the smallholder working group deals with many issues related to smallholder certification. Its mission is to ensure that “smallholders improve their livelihoods by benefitting from RSPO standards and best practices” (RSPO 2016b). There was a general sense in the group that many standards and procedures are being developed focusing on large plantation companies rather than smallholders. The smallholder working group should then “solve it for the smallholders”, instead of being involved in the development of new standards and procedures from the beginning. Yet, observations during a meeting of the smallholder group revealed the group felt it lacked institutional power to ensure its opinion and suggestions are well taken into account.

Consideration of smallholders' needs and perspectives in designing rules and procedures at the RSPO is essential to spur smallholder engagement and certification.

Reflection

The identification of barriers to smallholder RSPO certification raises a few important issues of debate that will be discussed here.

The first issue relates to the transformative power of the RSPO P&C. While implementation of RSPO P&C lead to a change in some of smallholders' practices in some areas, like record keeping, they lead to exclusion of smallholders in other areas. In Malaysia, a risk assessment of each individual farmer led to exclusion of an estimated 10% of farmers from the certified group. In this assessment, the difficulty of compliance with RSPO P&C was assessed, and farmers who were not likely to meet the requirements within the project period were excluded from the certification group. Whilst these farmers could still join the trainings on agronomic practices, they could not join additional benefits from certification like premiums or preferential market access^{lv}.

Problems with certifying smallholders lead to dilemmas for mills, like a grower from Papua New Guinea. Part of their smallholder supply base could not be certified for unspecified reasons. Subsequently, the mill had to choose between excluding these smallholders from their supply base, and losing the ability to sell segregated palm oil, for which a higher premium price can be obtained. It is questionable who benefits from excluding smallholders from certification. As Lee et al (2011, p. 2515) state "...it is imperative for proponents of sustainability standards and certification schemes to fully appreciate the complexities and reality of smallholder production systems within individual

societies... to ensure that no farmer is left behind in the quest towards sustainable biofuel production." More generally, the lack of demand for certified and traceable palm oil could lead to (re)connecting critical buyers with suppliers who are frontrunners in implementing sustainable palm practices, rather than stimulating suppliers to improve their practices and to solve problems "on the ground"^{lvi}. Thus, buyers concerned about sustainability would link to suppliers working on sustainability, and other (poor-performing) suppliers could sell their produce on markets where sustainability concerns do not play an important role.

This paper discussed barriers to certification, which are not necessarily similar to barriers to sustainability. In Thailand, mills do not base their payments on fruit quality, leading to poor harvesting practices and collection of unripe fruits with a low oil extraction rate^{lvii}. Resource use efficiency and sustainability would thus be enhanced by quality control, but this is not included in



FIGURE 2 SMALLHOLDERS, SUSTAINABILITY AND CERTIFICATION.
FROM: **SMALLHOLDER STRATEGY FRAMEWORK V2.0, 25 APRIL 2016**

RSPO's P&C. In a similar vein, barriers to yield intensification and barriers to RSPO certification do not necessarily overlap. Principle 4 is completely dedicated to “adoption of appropriate practices”, but the RSPO P&C are not very specific about what good practices entail. Specifically, the P&C do not contain any instructions about harvesting practice, seedlings or pruning, and only very little about fertilization (under 4.2 soil quality) and weeding (under 4.8 integrated pest management). More importantly, principle 4 seems to focus mainly on environmental sustainability and not on optimizing yields or increasing resource use efficiency. Improving agricultural practices and increasing yields is widely recognized as an important avenue for improving smallholders' livelihoods^{lviii} (Brandi et al. 2015, Rietberg and Slingerland 2016). Nevertheless, implementation of good agricultural practices would require investments by smallholders that not all could afford. Therefore, some consider increased emphasis on the adoption of good agricultural practices in the P&C undesirable^{lix}.

Finally, RSPO P&C, developed by downstream buyers and consumers, are focusing on environmental indicators and impose a set of principles and criteria on upstream producers with little interest in environmental concerns. Notably environmental NGOs are involved in smallholder certification because they want to protect conservation areas, primary forests and biodiversity, and consider intensification rather than expansion a good way to do so^{lx}. These different value systems may lie at the base of compliance challenges. Hence, smallholders' difficulty to comply with a particular indicator may imply this indicator is, indeed, difficult to comply with, but it may also point to a lack of interest to comply with this indicator. Clear incentives for smallholders will be necessary to motivate them to also address sustainability concerns. In a recent discussion paper of the RSPO the partial overlap between smallholders' interest, the quest for sustainability and certification as an approach was schematically represented (Figure 2). This figure shows that it is imperative to clearly distinguish between goals and means, and to consider trade-offs between different objectives.

Conclusion

Smallholders need financial, technical and organizational support in order to reach certification. There are several interrelated causes for this need for support, including lack of knowledge of certification and sustainability practices, lack of smallholder organization, notably of independent smallholders, the complexity of some of the RSPO requirements, and lack of incentives to comply. For certification to be of benefit to smallholders, projects should not only focus on complying with the RSPO criteria, but to address the wider challenges smallholders are facing.

Key knowledge gaps

1. The number of scientific publications about smallholder oil palm certification is limited. Most studies on barriers to smallholder certification or smallholder yield increases were done in Sumatra, Indonesia. There is a need for studies from other areas, notably outside Indonesia.
2. Although it is expected that certifying scheme smallholders is easier than certifying independent smallholders, there is a lack of studies on obstacles to smallholder certification experienced by mills. This is essential given the important roles that mills play and could play in certifying their supply base.
3. There is a need for studies comparing the efforts and effects of certification to other means to achieve environmental, social and economic sustainability goals.
4. There is a lack of studies identifying the most important barriers for different groups of smallholders and comparing barriers between countries.

Notes

- i interview 3, 4, 5, 7
- ii interview 5
- iii two Thai groups equal to those analyzed by us
- iv interview 1, 3, 4, 7
- v interview 1, 7
- vi interview 1
- vii interview 4
- viii interview 1
- ix interview 1, 3
- x interview 5
- xi interview 1, 4, 5
- xii interview 1, 2, 4, 5
- xiii interview 5
- xiv interview 3
- xv interview 2, 7
- xvi interview 2
- xvii interview 3, 4, 5, 7
- xviii interview 4, 5, 6
- xix interview 5
- xx interview 4, 5
- xxi interview 5
- xxii interview 5
- xxiii interview 4
- xxiv interviews 1, 3, 5, 6, 7
- xxv interview 6
- xxvi interview 1, 2, 4, 5
- xxvii interview 3, 4, 5, 6
- xxviii interview 1, 2, 3, 4, 5, 6, 7
- xxix interview 3
- xxx interview 5
- xxxi interview 3
- xxxii interview 1
- xxxiii interview 2, 7
- xxxiv Interview 2
- xxxv interview 6
- xxxvi interview 5
- xxxvii interview 3, 4, 7
- xxxviii interview 2
- xxxix interview 5, 6
- xl pers. comm. Reza Azmi
- xli interview 4,6
- xliv interview 6
- xlvi interview 4
- xlvi interview 1, 2, 3, 4
- xlvi interview 1, 3, 4
- xlvi interview 5
- xlvi interview 5
- xlvi interview 4
- xlvi interview 1, 2, 3, 4, 5
- l interview 1, 2, 3, 4, 5, 6
- li interview 2
- lii interview 3, 5
- liii interview 2, 4, 5
- liv interview 5, 6
- lv interview 6
- lvi interview 5
- lvii interview 6
- lviii interview 6
- lix interview 5
- lx interview 1, 2, 3, 4, 5
- lxi interview 4
- lxii interview 1,3

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Appendix 1: Methods for data collation and analysis

We searched for relevant literature in Google Scholar by using a combination of the terms “oil palm”, “smallholders”, “certification”, “constraints”, “challenges”, “impediments”, “RSPO”. We included studies when they presented original findings about oil palm smallholders and the implementation of RSPO certification. We found one peer-reviewed study explicitly addressing challenges for oil palm smallholders in complying with RSPO, 12 relevant studies discussing RSPO smallholder certification and seven studies addressing smallholder yield intensification. Other studies were included when relevant.

We conducted in-depth qualitative interviews with experts experienced in implementing smallholder projects aiming at certification (**Table 1**). We interviewed six experts from NGO’s, of which one from Ghana, three from Indonesia, one from Malaysia, and one from the Netherlands, working in various countries including Indonesia, Malaysia and Ghana. Two PhD researchers investigating oil palm sustainability from Thailand were interviewed. One of them was previously involved in implementing a large smallholder certification project in Thailand, and the other is currently investigating smallholder RSPO certification in Thailand. Topics covered in the interviews included experience with certification projects, phases in the certification project, potential advantages and disadvantages of certification for smallholders, difficulties and compliance challenges, smallholders’ motivation and knowledge and level of organization, abandoned/problematic cases, need for change.

Table 1. Overview of expert interviews and background of interviewees. “Completed” indicates the interviewee implemented and completed one or more project(s) leading to smallholder certification, “ongoing” indicates the interviewee was involved in implementing certification projects at the time of the interview.

Interview	Interviewee from	Experience with smallholder certification projects	Date
1	NGO Indonesia	Completed & ongoing	Nov-15
2	NGO Indonesia	Ongoing	Nov-15
3	NGO Ghana	Completed & ongoing	March-16
4	NGO Malaysia	Completed & ongoing	Jun-16
5	2 PhD researchers from Thailand, one of them former implementer	Completed (1) & other (2)	Jul-16
6	NGO Netherlands	Completed & ongoing	Jul-16
7	NGO Indonesia	Completed & ongoing	Aug-16

To gain insight into the most prevailing issues (criteria and indicators) of non-compliance, we reviewed ten certification documents and one recertification document of independent smallholder groups written by Certification Bodies (Table 2). We obtained these reports through the members’ section of the RSPO website (<http://www.rspo.org/members/all>). The analysis included reports from two Indonesian groups, four Thai groups and four Malaysian groups. This analysis was complemented by findings from (Lord and Durman 2013), who conducted a similar analysis including audit reports about scheme smallholders and plantation estates, for 2008-2012. A potential drawback of this approach is that only the latest reports of the certification bodies can be found on the RSPO website, and thus issues that have already been solved cannot be taken into account unless previous reports can be found.

Table 2. Audit reports of RSPO certified independent smallholders analysed for the purpose of this study.

Country	Location	Association	Date report	Assessment
Indonesia	Sumatra, Jambi	Gapoktan Tanjung Sehati	Nov-13	Certification
Indonesia	Sumatra, Riau, Pelalawan	Amanah	Jul-13	Certification
Thailand	Krabi	Univanich Plaipraya	Oct-12	Certification
Thailand	Krabi	Nuaklhom Khaopanom	Oct-12	Certification
Thailand	Chonburi	Chonburi	Oct-12	Certification
Thailand	Suratthani	Suratthani	Oct-12	Certification
Malaysia	Perak, Air Kuning	Air Kuning	Apr-13	Certification
Malaysia	Sabah, Beluran	Beluran	Apr-13	Certification
Malaysia	Sabah, Kinabatangan	Kinabatangan	Apr-13	Certification
Malaysia	Sarawak, Keresu, Bintulu	Keresu Group Scheme	Sep-14	Recertification

An analysis of corrective action requests as reported in certification audits provides information about the P&C that independent smallholder groups have most difficulty complying with. Yet, there are a few limitations to using this methodology. Firstly, an assessment of corrective action requests provides limited information about the reasons of non-compliance. In particular, it does not show whether a criterion is considered difficult to comply with and why, and/or whether a criterion is considered unimportant or irrelevant. Secondly, it does not critically evaluate the auditing methodology, nor does it include analysis of issues that may have been missed by the auditors. Thirdly, investigating corrective action requests does not reveal which P&C required and received a lot of attention during the certification process and were successfully complied with thanks to those efforts.

Appendix 2: Figures showing corrective action requests

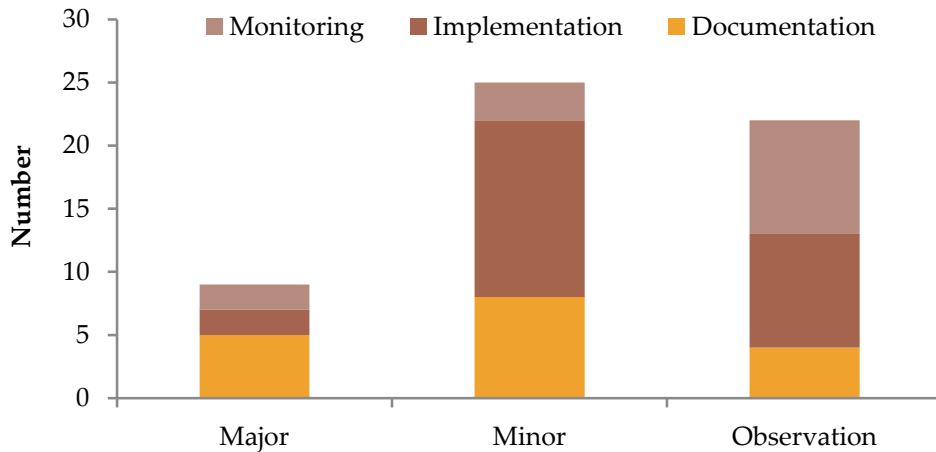


FIGURE 3. NUMBER OF CORRECTIVE ACTION REQUEST OR OBSERVATIONS RELATED TO MONITORING, IMPLEMENTATION AND DOCUMENTATION IN 12 AUDIT REPORTS OF INDEPENDENT SMALLHOLDER GROUPS.

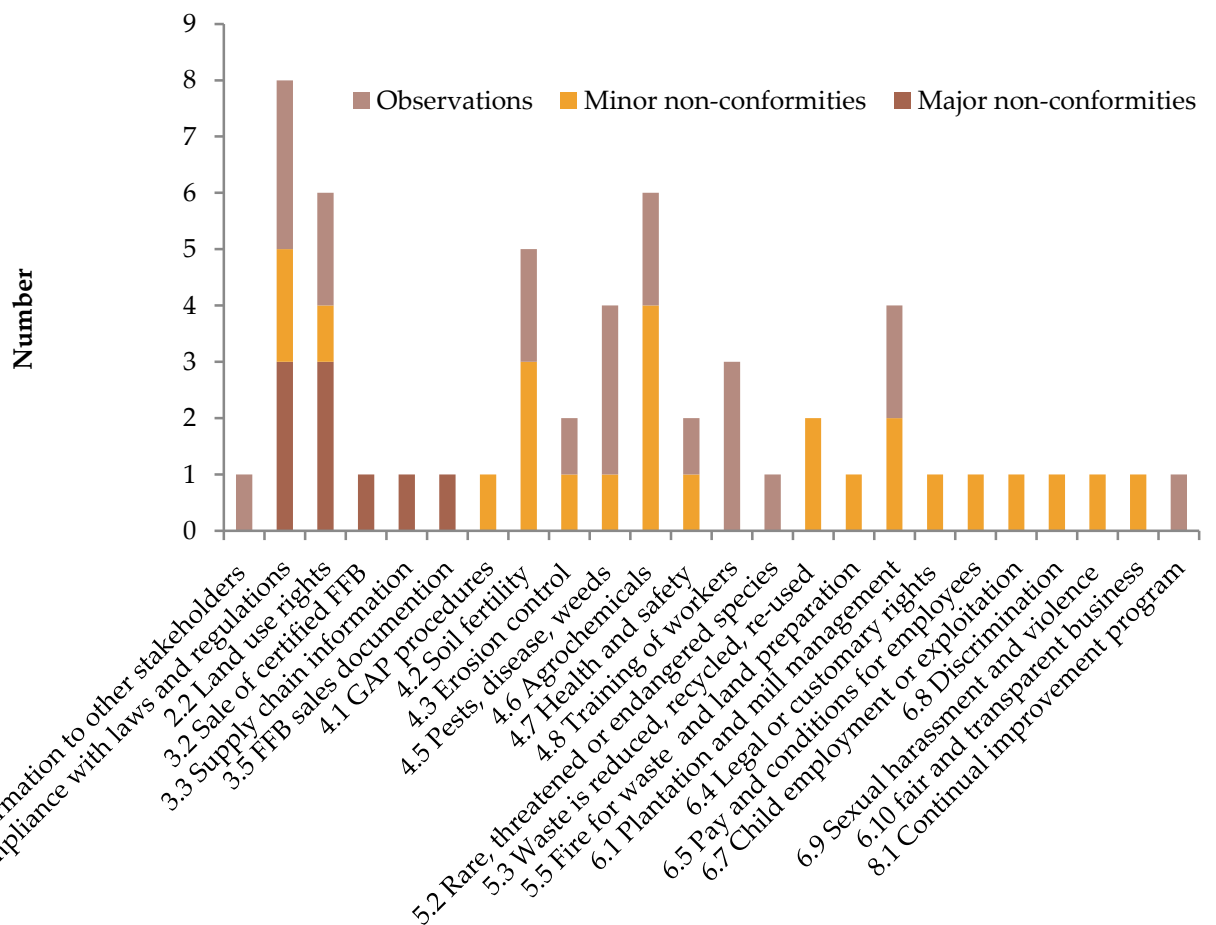


FIGURE 4. NUMBER OF MAJOR NON-CONFORMITIES, MINOR NON-CONFORMITIES AND OBSERVATIONS PER RSPO CRITERIA IN 12 AUDIT REPORTS OF INDEPENDENT SMALLHOLDER GROUPS.