



Benchmarking Study on Sustainability Standards for the Palm Oil Sector

Project report

May 2020

Commissioned by



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs,
Education and Research EAER
State Secretariat for Economic Affairs SECO

Palm Oil
Network Switzerland

Imprint

Mandator

State Secretariat for Economic Affairs, SECO
Trade Promotion
Holzikofenweg 36, 3003 Berne
Switzerland

Advisory Group

Christian Robin, Monica Rubiolo, Martin Gutjahr, Oskar Jönsson, SECO
Xavier Tschumi Canosa, Federal Office for the Environment
Romain Deveze, Damian Oettli, WWF Switzerland
Stefan Kausch, Palmoil Network Switzerland

Authors

Angela Schlösser, Christof Walter

Address

Christof Walter Associates
Menkestr. 7, 49076 Osnabrück, Germany
christof@christofwalter.com
+49 541 20066-144 (D)
+49 176 8333 5933 (M)
www.christofwalter.com

The Summary is available in German, and English. The complete report is available exclusively in English.

Die Zusammenfassung ist in den Sprachen Deutsch und Englisch verfügbar. Der vollständige Schlussbericht liegt in englischer Sprache vor.

Executive summary

The Swiss State Secretariat for Economic Affairs, SECO, commissioned Dalberg and Christof Walter Associates with a benchmarking study of sustainability standards for palm oil. The work was overseen by an advisory group that included representatives from SECO, the Federal Office for Environment (BAFU), WWF and the recently created Swiss Palm Oil Network.

The objective of the study was to gain a comparative overview of existing palm oil certification standards, their respective scopes, relative strengths and weaknesses and improvement potentials. This was to serve dual purpose (1) to support the efforts of the food industry actors gathered in the Swiss Palm Oil Network in their efforts for setting industrywide sustainability standards for palm oil; and (2) help inform SECO's approach to operationalising the sustainability requirements of the Comprehensive Economic Partnership Agreement (CEPA) between the EFTA States (including Switzerland) and Indonesia, by mapping them against the sustainability requirements contained in existing standards.

The study compared five voluntary sustainability standards: (1) the Roundtable on Sustainable Palm Oil (RSPO); (2) Rainforest Alliance Sustainable Agriculture Standard (SAS); (3) International Sustainability and Carbon Certification (ISCC) PLUS; (4) Bio Suisse Organic; and (5) Palm Oil Innovation Groups (POIG).

These five standards were benchmarked against an Extended version of the WWF's Certification Assessment Tool (CAT). The extensions of the CAT accounted for requirements articulated by the advisory board convened by SECO and covered: (1) the full scope of human and labour rights requirements of the ETI Base Code¹; (2) the "baseline"-level requirements for monitoring and evaluation of certification impacts formulated in the ISEAL Alliance's Impact Code²; and (3) Palm oil-specific requirements at mill-level for waste management, energy and smallholder relations.

The study found that, among the five compared standards, POIG and RSPO ranked highest, with 93% and 91% coverage of the benchmarking criteria, respectively. They were followed by ISCC PLUS (83%), Rainforest Alliance SAS (78%) and Bio Suisse Organic (58%). This ranking is consistent with the findings of four other published benchmarking studies, despite methodical differences and thematic focuses between studies.

However, this ranking is likely to change, as both Bio Suisse Organic and Rainforest Alliance will change their rules to require RSPO certification as a prerequisite for their own certification (double certification), as is already the case with POIG. This makes RSPO the foundation on which other standards try to differentiate with requirements going beyond RSPO.

We conclude that RSPO offers a comprehensive certification scheme for sustainable palm oil and RSPO-certified palm oil is widely available in the market. This seems to qualify RSPO as a suitable reference standard for SECO and the Swiss Palm Oil Network. The other benchmarked standards have strengths in particular areas, but for palm oil, none are as comprehensive as RSPO and none – with the exception of POIG – go beyond RSPO.

¹ The ETI Base Code is an internationally recognised code of labour practice founded on the conventions of the International Labour Organisation (ILO). Accessed in October 2019, <https://www.ethicaltrade.org/eti-base-code>.

² Code of Good Practice for Assessing the Impacts of Social and Environmental Systems, version 2.0, published in December 2014, <https://www.isealalliance.org/get-involved/resources/iseal-impacts-code-good-practice-version-20>.

Zusammenfassung

Das Schweizer Staatssekretariat für Wirtschaft, SECO, hat Dalberg und Christof Walter Associates mit einer Benchmarking-Studie zu unterschiedlichen Nachhaltigkeitsstandards für Palmöl beauftragt. Die Studie wurde betreut durch einen Begleitkreis aus Vertretern des SECO, des Bundesamtes für Umwelt (BAFU), des WWF und des neugegründeten Schweiz Palmölnetzwerks.

Ziel der Studie war, einen Überblick über bestehende Palmöl-Zertifizierungsstandards zu gewinnen, einschließlich ihres inhaltlichen Rahmens, ihrer relativen Stärken und Schwächen und ihrer Verbesserungspotenziale. Dies sollte einem zweifachen Zweck dienen: (1) die Bemühungen der im Schweizer Palmölnetzwerk zusammengeschlossenen Palmölimporteure und -verarbeiter zu unterstützen, gemeinsame Anforderungen für nachhaltiges Palmöl zu definieren; und (2) dem SECO zu helfen, die Nachhaltigkeitsanforderungen umzusetzen, die im Freihandelsabkommens (CEPA) zwischen den EFTA-Staaten (einschließlich der Schweiz) und Indonesien aufgestellt werden, indem sie diese mit den Nachhaltigkeitsanforderungen bestehender Standards vergleicht.

Die Studie verglich fünf freiwillige Nachhaltigkeitsstandards: (1) Roundtable on Sustainable Palm Oil (RSPO); (2) Rainforest Alliance Sustainable Agriculture Standard (SAS); (3) International Sustainability and Carbon Certification (ISCC) PLUS; (4) Bio Suisse Organic; und (5) Palm Oil Innovation Groups (POIG).

Diese fünf Standards wurden mit einer erweiterten Version der CAT (Certification Assessment Tool) des WWF verglichen. Die Erweiterung des CAT trug den speziellen Anforderungen Rechnung, die der vom SECO berufene Begleitkreis formuliert hatte. Sie umfasste (1) sämtliche Menschen- und Arbeitsrechte des ETI Base Codes³; (2) die „Baseline“-Anforderungen für Monitoring & Evaluation von Zertifizierungs-Effekten, wie sie der ISEAL Alliance Impact Code⁴ aufstellt; und (3) Palmöl-spezifische Anforderungen auf Eben der Mühle für Abfallwirtschaft, Energie und den Umgang mit Kleinbauern.

Die Studie ergab, dass POIG und RSPO unter den verglichenen Standards an der Spitze rangierten, mit 93% bzw. 91% Abdeckung aller Benchmarking-Kriterien. Es folgten ISCC PLUS (83%), Rainforest Alliance SAS (78%) und Bio Suisse Organic (58%). Diese Rangfolge stimmt mit der von vier anderen publizierten Benchmarking-Studien überein, trotz unterschiedlicher Methodiken und thematischer Schwerpunkte unter den Studien.

Diese Rangfolge wird sich allerdings wahrscheinlich ändern, da sowohl Bio Suisse Organic als auch Rainforest Alliance ihre Regeln dahingehend ändern werden, dass sie eine RSPO-Zertifizierung als Voraussetzung für ihre eigene Zertifizierung verlangen (Doppelzertifizierung), wie dies bei POIG bereits der Fall ist.

Insgesamt bietet RSPO ein umfassendes Zertifizierungssystem für nachhaltiges Palmöl. RSPO-zertifiziertes Palmöl ist im Markt weithin verfügbar. Damit scheint RSPO ein geeigneter Referenz-Standard für das SECO und das Schweizer Palmölnetzwerk zu sein. Die anderen hier verglichenen Standards haben ihre Stärken, aber für Palmöl ist keiner so umfassend wie RSPO oder geht – mit Ausnahme von POIG – über RSPO hinaus.

³ The ETI Base Code is an internationally recognised code of labour practice founded on the conventions of the International Labour Organisation (ILO). Accessed in October 2019, <https://www.ethicaltrade.org/eti-base-code>.

⁴ Code of Good Practice for Assessing the Impacts of Social and Environmental Systems, version 2.0, published in December 2014, <https://www.isealliance.org/get-involved/resources/iseal-impacts-code-good-practice-version-20>.

Contents

Executive summary.....	i
Zusammenfassung.....	ii
Abbreviations.....	iv
1 Background and Context	1
1.1 Global production and demand of palm oil	1
1.2 Certified sustainable palm oil	1
1.3 Situation in Switzerland.....	2
2 Objectives and scope of this study	3
2.1 Objectives	3
2.2 Scope	3
2.3 Standards analysed.....	3
3 Review of other Comparison Studies of Palm Oil Sustainability Standards	8
4 Methods	15
4.1 The Certification Assessment Tool (CAT).....	15
4.2 Strategic fit of CAT	15
4.3 Adaptation of the CAT for the purposes of this project: Extended CAT	16
4.4 Evaluation process and caveat	18
4.5 Excel sheet.....	18
5 Analysis and Results by Certification Scheme	19
5.1 Roundtable on Sustainable Palm Oil (RSPO)	19
5.2 Rainforest Alliance.....	22
5.3 ISCC PLUS.....	24
5.4 Bio Suisse Organic.....	26
5.5 POIG.....	28
6 Results by Topic.....	30
6.1 Certification scheme governance	30
6.2 Certification scheme good practice requirements.....	33
7 Overall Results and Discussion	37
8 Conclusions and Recommendations.....	38
8.1 Conclusions.....	38
8.2 Recommendations.....	38
9 References and Sources	40
10 Appendix I: List of Extended CAT criteria	42

Abbreviations

CAT	Certification Assessment Tool
CEPA	Comprehensive Economic Partnership Agreement
CPO	Crude palm oil
EFB	Empty fruit bunches
ETI	Ethical Trade Initiative
FFB	Fresh fruit bunches
FiBL	Forschungsinstitut für biologischen Landbau
ISCC	International Sustainability and Carbon Certification
ISPO	Indonesian Sustainable Palm Oil Standard
HCS	High carbon stocks
HCV	High conservation values
Mn	Million
MSPO	Malaysian Sustainable Palm Oil Standard
M&E	Monitoring and evaluation
NGO	Non-governmental organisation
POIG	Palm Oil Innovation Group
POME	Palm oil mill effluent
RSPO	Roundtable on Sustainable Palm Oil
Extended CAT	Extended version of the CAT used in this study
SAN	Sustainable Agriculture Network
SAS	(Rainforest Alliance) Sustainable Agriculture Standard
t	Metric tons
VSS	Voluntary sustainability standard
WWF	Worldwide Fund for Nature

1 Background and Context

1.1 Global production and demand of palm oil

Palm oil is the largest vegetable oil globally by both production volume (77 Mn t or 36% of all vegetable oils produced globally in 2019) and by internationally traded volume (nearly 55 Mn t). Indonesia and Malaysia are the biggest producers, accounting for nearly 85% of global production, with 44.1 Mn t and 20.5 Mn t in 2019, respectively [1].

In recent years, the global production and the global demand of palm oil are nearly equal, leading to a reduction of stocks. The biggest importers of palm oil globally are India (c. 10 Mn t), the EU-28 (c. 8 Mn t) and China (c. 7 Mn t) [1]. Between 2016 and 2018 Switzerland imported an average of 30 400 t per year [2], of which around two thirds are consumed domestically. This makes Switzerland one of the smaller users in the global context [3], though Swiss per capita consumption in 2012/13 was, with c. 2 kg per year, at the same level as globally and in the EU [4]. Switzerland imports palm oil from a range of origins, which include Malaysia and smaller producers like the Solomon Islands and Cambodia. Indonesia, which together with Malaysia makes up the bulk of the global supply of palm oil, accounts only for a small share of the Swiss market.

1.2 Certified sustainable palm oil

Expansion of oil palm cultivation has long been associated with the large-scale destruction of primary rainforest. Also, human rights violations, including systemic use of forced and bonded labour and child labour, seem endemic in parts of the Asian and African palm oil industries and continue to be reported until this day [5].

In response to the negative environmental and social effects of palm oil cultivation, palm oil sector initiatives emerged over the past 15 years, involving companies, NGOs and governments. They aim at reducing the negative effects by working at the level of palm oil producers, industry sectors and governments.

With over 4,500 members, the Roundtable on Sustainable Palm Oil (RSPO) is the largest and oldest certification scheme for sustainable palm oil. As of October 2019, over 4 Mn ha of oil palm plantations globally were RSPO certified, producing 14.7 Mn t, or 19%, of the world's production of crude palm oil (CPO) [6]. The RSPO is the only voluntary global standard that focuses solely on palm oil. However, other voluntary standards include palm oil in their scope of certification. One of them is International Sustainability and Carbon Certification (ISCC), with 1.6 Mn ha of oil palm plantation area certified. Others are Rainforest Alliance and Bio Suisse. However, these standards have a much smaller presence in the market than RSPO and ISCC. For instance, around 0.5 Mn t of sustainable CPO per year are Rainforest Alliance certified, compared to the RSPO's 14.7 Mn t [7]. Also, around 50% of this volume is double-certified, i.e. carries RSPO certification plus Rainforest Alliance or Bio Suisse certification, making them specialised niche standards that are often used to further differentiate palm oil consignments that are already RSPO certified.

The two large palm oil producing countries, Indonesia and Malaysia, have created their own national palm oil sustainability standard, the Indonesian Sustainable Palm Oil standard, ISPO, and the Malaysian Sustainable Palm Oil standard, MSPO. Contrary to the voluntary standards like RSPO and ISCC PLUS, they are mandatory, at least for large-scale producers. ISPO certification is mandatory for large producers since 2014, MSPO intends to become mandatory from 2020 onwards [8]. The uptake of both standards has been slower than the governments hoped, especially among smallholder producers [9, 10]. However, once fully rolled out, ISPO and MSPO together will apply to nearly 20 Mn ha oil palm plantation (around 3.4 Mn ha of which are currently RSPO certified). This would make ISPO and MSPO the largest palm oil certification schemes globally.

The majority of RSPO certified sustainable palm oil is destined to European (EU-28) food production: In Nov 2016, 70% of all palm oil used by the European food industry was certified sustainable, making the European food industry, with 60% of all certified palm oil, the biggest user of certified palm oil worldwide [11].

1.3 Situation in Switzerland

Switzerland imports around 34,400 t of palm oil per year. With a share of 16% of domestic consumption, palm oil is the third largest vegetable oil after sunflower oil (32%) and rapeseed oil (28%) and represents around 25% of all vegetable oil imports [3].

Swiss industry actors are involved in various initiatives on palm oil sustainability, such as the RSPO, which counts 78 Swiss companies and organisations among its members – a disproportionately high number considering Switzerland's small role in the global palm oil market.

Through a cross-industry agreement (*Branchenvereinbarung*), Swiss importers and processors of palm oil have made a commitment to coordinate their efforts for more sustainable palm oil, including instigating the adoption and development of best practices and reporting on progress and challenges.

In 2018 the EFTA States, including Switzerland signed a Comprehensive Economic Partnership Agreement (CEPA) with Indonesia, the world's largest producer of palm oil. A similar free-trade agreement with Malaysia, the world's second largest producer of palm oil, may follow. Five quotas with partial tariff reductions of 20-40% for palm oil and its derivatives are stipulated in the CEPA. They have a total volume of 10,000 tonnes, rising to 12,500 tonnes over five years. In its Article 8.10, the CEPA with Indonesia includes core sustainability requirements for the import of Indonesian palm oil, that, among others, aim at the protection of primary forests, peatland and other high-value ecosystems; at the protection of human and labour rights and of the rights of indigenous peoples; and at continuous improvements in the governance of the palm oil sector at national level.

To ensure that only sustainably produced palm oil according to article 8.10 can benefit from the tariff reductions foreseen under the agreement, the Swiss government and industry will rely to a large extent on existing sustainability certification standards in the market.

2 Objectives and scope of this study

2.1 Objectives

To support the Swiss industry dialogue and help operationalise the core requirements of the free-trade agreement with Indonesia, SECO has commissioned a benchmarking study of existing sustainability standards for palm oil. The aim of this study is to

1. analyse these standards for their fit with the Swiss core requirements;
2. compare standards against each other; and
3. identify improvement potentials, which could be addressed with the standard owners.

2.2 Scope

Specifically, this study addresses the following questions:

1. To which extent does the WWF Certification Assessment Tool (CAT, version 4.0) cover the core sustainability requirements of the free-trade agreement, and how might the CAT be Extended to fill any missing gaps?
2. To which extent might selected existing sustainability standards for palm oil meet the requirements of the Swiss industry actors organised in the Palm Oil Network?
3. To which extent do selected existing sustainability standards for palm oil cover the core sustainability requirements of the CEPA⁵?
4. Where do standards differ, and which areas might be addressed with standard owners with a view to greater alignment between the Swiss requirements and existing standards in the future?

2.3 Standards analysed

The standards selected for this study are

1. Roundtable for Sustainable Palm Oil (RSPO), P&C 2018
2. Rainforest Alliance Sustainable Agriculture Standard (SAS), 2017
3. ISCC PLUS, Sustainability Requirements version 3.0
4. Bio Suisse Organic, Guideline January 2020
5. Palm Oil Innovation Groups (POIG), Verification Indicators 2019

The Indonesian Sustainable Palm Oil Standard (ISPO) has currently no relevance in the Swiss market and is unlikely to gain a more prevalent position in its current form, as several studies have found it to compare poorly to other standards [12, 13, 14, 15, 16, 17]. The benchmark for ISPO was hence not included in this report, though we reference findings regarding ISPO from other studies and a short description. It is worth noting that ISPO is currently under review. The forthcoming version of ISPO may prove to be more relevant for the Swiss industry and could be included in a future evaluation.

⁵ This question was not addressed in this report but in a separate document.

Similarly, we include a short description of the Malaysian Palm Oil Standard (MSPO). It, too, has not been included in this report but could be included in a future evaluation.

RSPO

Founded in 2004, the Roundtable on Sustainable Palm Oil (RSPO) is among the oldest initiatives and most widely subscribed initiatives, with over 4,500 institutional members worldwide. It was created following efforts of the WWF to convene all relevant actors in the palm oil industry to collaborate on addressing the industry's environmental and social problems. Formally constituted as an association (*Verein*) headquartered in Zurich, the RSPO is today operating from its secretariat in Malaysia and a satellite office in Indonesia. As a roundtable initiative, the RSPO aims at uniting palm oil producers, traders, users, government, civil society, banks and other stakeholders behind mutually negotiated and agreed best practices, codified in the RSPO's Principles and Criteria (P&C). The first version was published in 2007. The first palm oil certified against the P&C was on the market one year later. In 2018, the RSPO published the latest version of its P&C.

Through working groups and projects, the RSPO also addresses specific topics and creates thought leadership, which feed into the updated P&C and additional best practice guidance, such as a set of P&C adapted for independent smallholders. The independent smallholder standard was approved in November 2019 but not yet included in this study as our analytical work pre-dated the publication.

The RSPO has repeatedly been criticised by NGOs and the media. Criticism concentrates around (a) certification not being sufficient to halt deforestation; (b) RSPO P&C being too weak, difficult to enforce and sanctions for violations not severe enough; (c) the label giving consumers a false sense of security, suggesting labelled products are 'sustainable'; (d) the dominance of industry vis-à-vis civil society in membership and governance bodies. Nonetheless, the RSPO provides the only certification scheme for palm oil in the global markets that has been readily taken up by the wider market, especially by the European food industry. In 2019, nearly one fifth of the global palm oil production was RSPO-certified.

Rainforest Alliance

Rainforest Alliance is an international non-governmental organization headquartered in New York City and Amsterdam. Founded in 1987, it focuses on sustainability certification of forestry, agriculture and tourism and today supports programmes in more than 60 countries. In 2018, Rainforest Alliance and UTZ Certified merged their organisations, continuing under the name Rainforest Alliance. With the release of a new, joint certification standard in 2020 both organisations will have completed the merger of their certification programmes for sustainable agriculture.

Rainforest Alliance palm oil certification, as an exception, will continue to use the 2017 SAS standard, until its scheduled renewal in 2022. At the time of benchmarking the SAS Standard for this study, Rainforest Alliance did not demand RSPO certification as a precondition to Rainforest Alliance certification, though *de facto* many Rainforest Alliance certified producers are also RSPO certified [7]. The benchmarking results shown in this study therefore represent Rainforest Alliance certification on its own, without RSPO certification. However, moving forward, the Rainforest Alliance will require both growers and supply chain actors to be certified against the Rainforest Alliance standard as well as the RSPO standard. In addition, companies will be required to invest into smallholder engagement in landscapes at high risk of land-use change, to support sector transformation [7]. Compared with RSPO, Rainforest Alliance's palm oil

certification programme is small (c. 500,000t per year) and has a geographic focus on Latin America. Most Rainforest Alliance certified producers are also RSPO certified [7].

It's worthwhile mentioning that UTZ Certified developed and managed *PalmTrace*, the RSPO's traceability system for certified palm oil, which is an integral part of the RSPO's certification programme. With the UTZ/Rainforest Alliance merger, Rainforest Alliance is now the owner of *PalmTrace*, creating a close business relationship between Rainforest Alliance and the RSPO.

ISCC

The International Sustainability & Carbon Certification (ISCC) is a modular certification system for sustainable biomass and feedstock supply chains. The relevant version for palm oil for food use is ISCC PLUS. ISCC was created in 2010 in response to the European Commission's Renewable Energy Directive, which created demand for biomass for energy from certified sustainable sources, especially certified deforestation-free biomass. Oil palm is, alongside rapeseed, one of the ISCC's main certified crops. In 2018, over 1.6Mn ha of palm plantation were ISCC certified.

ISCC is a German-based organisation, consisting of the ISCC Association (Verein), which is open to membership from any interested individual and organisation; and the ISCC Systems GmbH, an independent limited liability company, which runs the day-to-day operations of the certification system.

Bio Suisse Organic

Bio Suisse is the umbrella organisation of Swiss organic producers and producer associations. Founded in 1981, the organisation is headquartered in Basel and owns the Bio Suisse standard and '*Knospe*' ('bud') label. The standard is continually developed further and an updated version of the Guidelines (*Richtlinie*) is published every year.

With nearly 10% of food sales, Switzerland is one of the countries with the highest organic market share and the Bio Suisse '*Knospe*' ('bud') label is widely trusted by consumers [18]. Imported goods and materials can only carry the '*Knospe*' label if they cannot be produced in sufficient quantity or quality in Switzerland. In addition to the '*Knospe*' products from Switzerland, a wide range of raw materials from farms in over 50 countries are '*Knospe*' certified and imported to Switzerland – such as palm oil. Imported goods are subject to requirements equivalent to Swiss produced '*Knospe*' products. The necessary adjustments of the standard (e.g. due to different environmental and social conditions) are laid out in Part V of the Guidelines.

As a membership organisation, the governance of Bio Suisse lies with its member associations. Membership is restricted to Swiss organic producers; i.e. other stakeholders are not represented in the organisation's formal governance. Audits and verification of domestic producers are contracted to two Certification Bodies, bio.inspecta AG and Bio Test Agro AG. Both were set up by Swiss organic producers and, though formally independent, bio.inspecta's shareholders are exclusively organisations, individuals and stakeholders with close ties to the organic movement. International certifications are overseen by bio.inspecta AG and International Certification Bio Suisse (ICB) AG, a subsidiary of Bio Suisse, and contracted to independent ISO 17065: 2012 accredited certification bodies.

POIG

The Palm Oil Innovation Group (POIG) is a multi-stakeholder initiative, founded in 2013 as a partnership with leading NGOs, palm oil producers and food companies. The aim of POIG is the adoption of responsible palm oil production practices that go beyond the RSPO, following the lead of key players in the supply chain. Although POIG uses third party verification for the implementation of good practices, it is not a certification scheme, nor does it aspire to become one. Rather, it aims at pushing the development of next generation standards, commitments and best practices within the RSPO framework, focusing on (1) environmental responsibility, (2) partnerships with communities and workers' rights and (3) corporate and product integrity. For instance, many of POIG's requirements were included in the RSPO's 2018 P&C.

The POIG Charter requires certification to RSPO plus adherence to the POIG Charter, as demonstrated by an audit against the POIG Charter Verification Indicator. So POIG is not a stand-alone standard but rather intended as an advanced 'add-on' to RSPO.

ISPO

The Indonesian Sustainable Palm Oil (ISPO) standard, first introduced in 2011 by the Government of Indonesia by ministerial decree, intends to introduce higher sustainability standards for all Indonesian palm oil producers, not only those exporting to markets that demand certification to RSPO or similar voluntary standards. The move was accompanied by the Indonesian Palm Oil Association leaving the RSPO [8]. ISPO was made compulsory for large plantations in 2014. Smaller producers were encouraged to apply for voluntary certification and will be included in compulsory certification by 2022.

While structurally similar to RSPO, ISPO strongly builds on compliance with Indonesian laws and regulations, especially AMDAL, the Indonesian Environmental Feasibility Assessment.

The ISPO Principles & Criteria have been criticized by NGOs, governments and academics for being ineffective in protecting human, worker and community rights, in conserving High Conservation Value forests and other ecosystems and for suffering from poor enforcement and weak and non-transparent governance [12, 13].

In response to persistent criticism, the Indonesian government initiated a review of ISPO which included the input from a range of stakeholders. However, in 2018, the government produced its own revised draft, which was seen as a step backwards by many commentators and seemed to ignore the input of the previous multi-stakeholder process [12]. Stakeholders were then invited to comment on the government's draft but since receiving the input the process seems to have stalled.

MSPO

The Malaysian Sustainable Palm Oil (MSPO) certification scheme is the Malaysian government scheme for palm oil producers, processors and traders. First launched in 2013, it was developed with input from stakeholders in the palm oil industry and, according to the Malaysian Palm Oil Board (MPOB), was created to help small and medium growers, who historically could not afford RSPO certification, to become more sustainable. Like its Indonesian counterpart ISPO, the MSPO draws heavily on existing national laws and regulations [8].

Initially a voluntary standard, the Malaysian government has made it mandatory for all producers from January 2020, though as of October 2019, over 40% of the Malaysian palm production still remained to be certified, roughly corresponding to the 40% of land managed by smallholders [9].

3 Review of other Comparison Studies of Palm Oil Sustainability Standards

Several benchmarking and comparison studies have been conducted on palm oil certification standards, some of which offer quantitative comparative analyses of the benchmarked standards, see Table 1, and are briefly discussed here.

Schleicher et al. (2019) at Öko-Institut [15] analyse ten certification schemes in the context of bio energy sustainability, using a set of 19 evaluation criteria, primarily based on ISO 13065, *Sustainability criteria for bioenergy*. ISO 13065 sets a framework for developing bioenergy and specifies principles, criteria and indicators for the assessment of environmental, social and economic aspects of sustainability in bioenergy supply chains. Further, the authors included evaluation criteria from the European Renewable Energy Directive (RED 2009) and ISEAL Alliance for aspects missing from ISO 13065. They evaluate each criterion on a scale from 0% (not included) to 100% (fully included).

We reproduce results from the Öko-Institute study in Table 2. The ten standards analysed in the study include ISCC, Rainforest Alliance SAS (referred to as ‘SAN’) and ISPO. It also includes an analysis of the previous version of RSPO (Principles & Criteria 2013) plus RSPO-NEXT. RSPO NEXT was a module with additional requirements to the 2013 RSPO Principles & Criteria, which have largely been included in the 2018 Principles and Criteria. So, 2013 RSPO NEXT is the closest comparator to the 2018 Principles & Criteria, which were analysed in this study.

As can be seen in Table 2, RSB (Roundtable on Sustainable Biomaterials) scores highest and reaches over 80% on all but three out of 19 criteria. However, RSB currently plays no significant role in palm oil certification [15]. RSPO-NEXT (roughly equivalent to RSPO P&C 2018, which was benchmarked in our study) comes second with 11 criteria scoring over 80% and another three between 70 and 80%. ISCC PLUS comes in third place, with 10 criteria scoring over 80%, and Rainforest Alliance in fourth place with 8 criteria scoring over 80% and another 6 criteria between 50 and 80%. ISPO performs the worst out of the ten evaluated standards in the study, with 16 criteria out of 19 scoring below 50%.

Table 1: Overview of quantitative comparative studies of palm oil certification schemes.

Study (institution: authors, year)	Focus	Standards included (year/version)							
		RSPO	Rainforest Alliance	ISCC PLUS	Bio Suisse	POIG	ISPO	MSPO	Further standards included in study
Daemeter: B. Yaap and G. Paoli, 2014		X ^a	X ^b	X ^c			X ^e		
Forest People Programmes: A. McInnes, 2017	Social	X ^{a, f}	X	X		X ^d	X	X	RSB, HCS
IUCN: B. Tinhout and H. van den Hombergh, 2019	Biodiversity & governance	X	X	X			X	X	ISCC-EU
FiBL: T. Bernet and P. van den Berge, 2019		X ^a							Fair for Life
Öko-Institut: T. Schleicher, I. Hilbert, A. Manhart, K. Hennenberg, Ernah, S. Vidya, I. Fakhriya, 2019	Bio energy	X ^{a, f}	X	X			X		RSB, NTA_8080, 2BSvs, HVO-VS, EU-Bio, BioGrace, HCV/HCS

^a Previous version (P&C 2013). ^b Previous version (2010 SAN Sustainable Agriculture Standard). ^c Previous version (2012 ISCC PLUS). ^d Previous version (POIG Charter verification indicators, April 2014). ^e Pre-2015 version. ^f Including RSPO-NEXT, which overlaps to a large extent with the 2018 Principles & Criteria.

Table 2: Results from Schleicher et al. (2019), comparing different bioenergy certification standards. Orange frames indicate standards included in our study. Note that RSPO-NEXT was an Extended variation of the previous (2013) RSPO Principles & Criteria, which has largely been included in the current (2018) version and is deemed roughly equivalent to it. 'SAN' is Rainforest Alliance SAS, ISCC is equivalent to ISCC PLUS in this study. Source [15], Figure 5-1, p. 26.

Certification system	RSB	RSPO-RED	RSPO-NEXT	RSPO	ISCC	NTA 8080	SAN	ISPO
Version	Version 3.0 (2016)	RSPO P&C (2013)	RSPO P&C (2013)	RSPO P&C (2013)	Version 3.0 (2016)	NTA 8080-1 (en) (2015)	Version 1.2 (2017)	11/Permentan/OT.140/3/2 015 (2015)
Product	all products	palm oil	palm oil	palm oil	all products	all products	all products	all products
Geographic context	global	global	global	global	global	global	global	Indonesia
Particular assumptions	--	--	--	--	--	--	--	--
Systematic requirements (RED)								
Supply chain monitoring	Segregation, Mass balance	Mass balance	Segregation, Mass balance	Segregation, Mass balance	Mass balance	Mass balance	Segregation	Book and Claim / Content Ratio Accounting
Reliability of certification systems	100	100	100	100	100	100	100	0
RED requirements								
Biodiversity inside protected areas	100	100	100	100	100	100	100	33
GHG-balance	100	50	0	0	100	100	0	50
Land with high carbon stock	100	100	78	0	100	100	33	11
Environmental aspects								
Mean value of environmental aspects	91	89	89	89	59	72	73	19
Biodiversity within the area of operation, outside protected areas	88	100	100	100	60	100	100	18
Soil quality and productivity	94	81	81	81	88	77	79	25
Soil erosion	100	83	83	83	100	100	100	25
Water withdrawals	100	33	33	33	38	88	71	17
Water contamination	88	71	71	71	45	32	62	17
Air emission	94	33	33	33	0	50	0	17
Waste management	75	83	83	83	83	58	100	14
not included in the mean value								
Obligation to label GMO	33	0	0	0	100	33	100	0
Social aspects								
Mean value of social aspects	91	92	93	92	54	55	31	27
Human rights	100	100	100	100	100	0	0	0
Labour rights	87	87	93	87	100	77	87	73
Land use rights and land use change	100	100	100	100	17	25	50	50
Water use rights	100	72	72	72	22	72	17	11
Food security	67	100	100	100	33	100	0	0
Systematic requirements								
Requirements for data collection	83	8	8	8	0	100	58	0

B. Tinhout and H. van den Hombergh (2019) [16] at IUCN assess the rigour of biodiversity and assurance (governance) requirements of six palm oil certification schemes, all of which (except ISCC EU) are also included in our study: RSPO, Rainforest Alliance SAS (referred to as 'SAN'), ISCC-EU, ISCC PLUS, ISPO and MSPO.

Other than our assessment, the IUCN study focuses on biodiversity only, which is assessed in detail, looking at nine thematic areas, which are broken down further into 64 evaluation criteria. In addition, IUCN also conducted a benchmark of assurance criteria, looking at twelve governance aspects with a total of 40 evaluation criteria. These cover a very similar scope to the governance part (Part I) of CAT, which was the basis of our assessment. The results of IUCN's 'assurance' benchmark and our Part I benchmark may therefore be expected to be comparable. Tinhout and van den Hombergh use a rating scale of strong, good, medium and weak with corresponding score from 3 to 0. Benchmarks are fully documented and available online at www.iucn.nl/node/580.

Detailed results, explanations and analyses are provided in the original report. Figure 1 shows the aggregated results for the six standards, plotted against the aggregated performance scores for the two aspects, *biodiversity* and *assurance*. As can be seen from Figure 1, RSPO scores highest on both criteria clusters. ISCC and Rainforest Alliance follow and MSPO and ISPO come last.

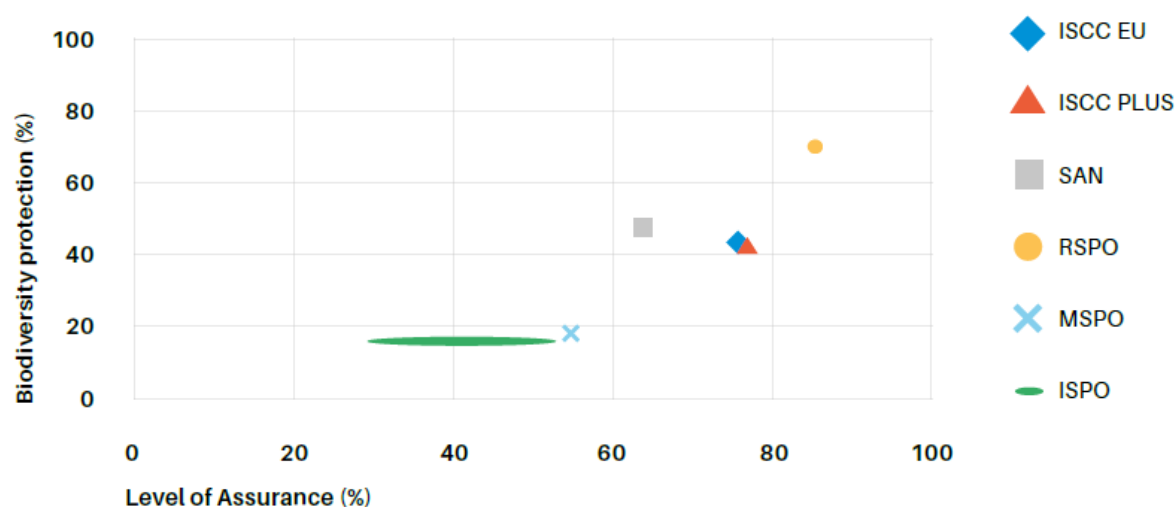


Figure 1: Results from Tinhout and van den Hombergh (2019), looking at the level of biodiversity protecting vs. assurance (scheme governance). The diagram shows percentage scores of assurance (x-axis) plotted against biodiversity (y-axis). 'SAN' is Rainforest Alliance SAS. Source: [16], Figure 1.

A. McInnes (2017) analyses seven palm oil certification standards for the Forest Peoples Programme: RSPO (2013 Principles & Criteria), Roundtable on Sustainable Biomaterials (RSB), Rainforest Alliance Sustainable Agriculture Standard SAS (referred to as 'SAN'), ISCC PLUS, the High Carbon Stocks approach (HCS), MSPO and ISPO. Note, that in this study, too, the previous version of the RSPO standard (P&C 2013) was analysed. McInnes looks at six key social themes, supported by a total of 39 different evaluation criteria. Depending on the provisions of the certification standard, each one of them was given a score between 0 (lowest provisions) and 3 (highest provisions), based on the depth, detail, and stringency of requirements for compliance.

Results are shown in Figure 2, which shows both the ranking of the seven standards and their total scores across all evaluation criteria, indicating the relative distance between them. The study also includes an assessment of RSPO-NEXT, which has largely been included in the 2018 Principles and Criteria, and of POIG.

Both extensions to RSPO lead, according to the study, to further improvements for most criteria evaluated. RSPO-NEXT achieves an additional 20 points and POIG 14, which would position it second in an overall ranking, after RSPO-NEXT.

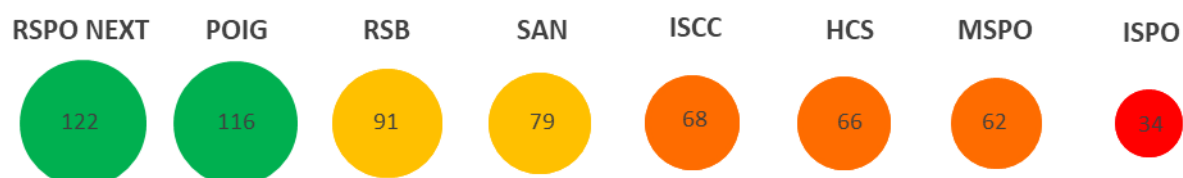


Figure 2: Results from McInnes (2017), adapted: Total scores of social and human rights related criteria of palm oil certification standards. Note that McInnes analysed the 2013 version of RSPO. We adapted the diagram to include (a) additional score calculated by McInnes for RSPO-NEXT, an Extended variation of the 2013 RSPO Principles & Criteria, which has largely been included in the current (2018) version and is deemed roughly equivalent to it; (b) POIG, for which McInnes also calculated a score. 'SAN' is Rainforest Alliance SAS. Source: [14, pp. 8, 47].

T. Bernet and P. van den Berge (2019) conducted a study for FiBL [19], in which they assessed eight palm oil companies with different certifications (3 non-certified, 1 RSPO, 1 EU-bio + Fair for Life, and 3 Bio Suisse Organic + RSPO) in Ghana, Madagascar and Latin America. They used the Palm Oil Hotspot Analysis, developed by FiBL, that looks at 22 sustainability indicators in the four areas (A) Land use; (B) oil quality; (C) social impact; and (D) environmental impact. In this empirical assessment, the total average score of the three companies that are Bio Suisse Organic + RSPO certified was highest and the total average score of the three uncertified companies lowest. The other two fell in between, though, they were each single instances (no replications), so are not statistically valid.

Bernet and van den Berge then applied the same Palm Oil Hotspot Analysis to analyse RSPO and Fair for Life. As this assessment was done to evaluate the added value of the two standards when combined with the Bio Suisse Organic standard, it unfortunately did not offer an assessment of Bio Suisse on its own, which would have been interesting in the context of our study. Results are shown in Figure 3. In this assessment, Fair for Life score higher than RSPO across many categories.

A 2014 study by **B. Yaap and G. Paoli** at Daemeter compares the then-current versions of four of the standards included in our study: RSPO (P&C 2013), ISCC (2012 version), SAN (2010, the predecessor of the Rainforest Alliance SAS) and ISPO (2012). It is important to bear in mind that the results should be taken as indicative only because they relate to a comparison of the previous versions of these standards. A benchmark of the current versions would likely look different, because RSPO, Rainforest Alliance SAN and ISCC have undergone structural changes and improvements between the current and the previous versions. The current version of ISPO is based on a ministerial decree from 2015. We could not find information about any differences between the 2015 version of ISPO and any previous versions, other that the standards was first released in December 2012 [8]. As the Yaap and Paolini study predates 2015, it not clear which version of ISPO they used. Despite the methodological caveat, we include this study here because it is thoroughly researched and well-documented.

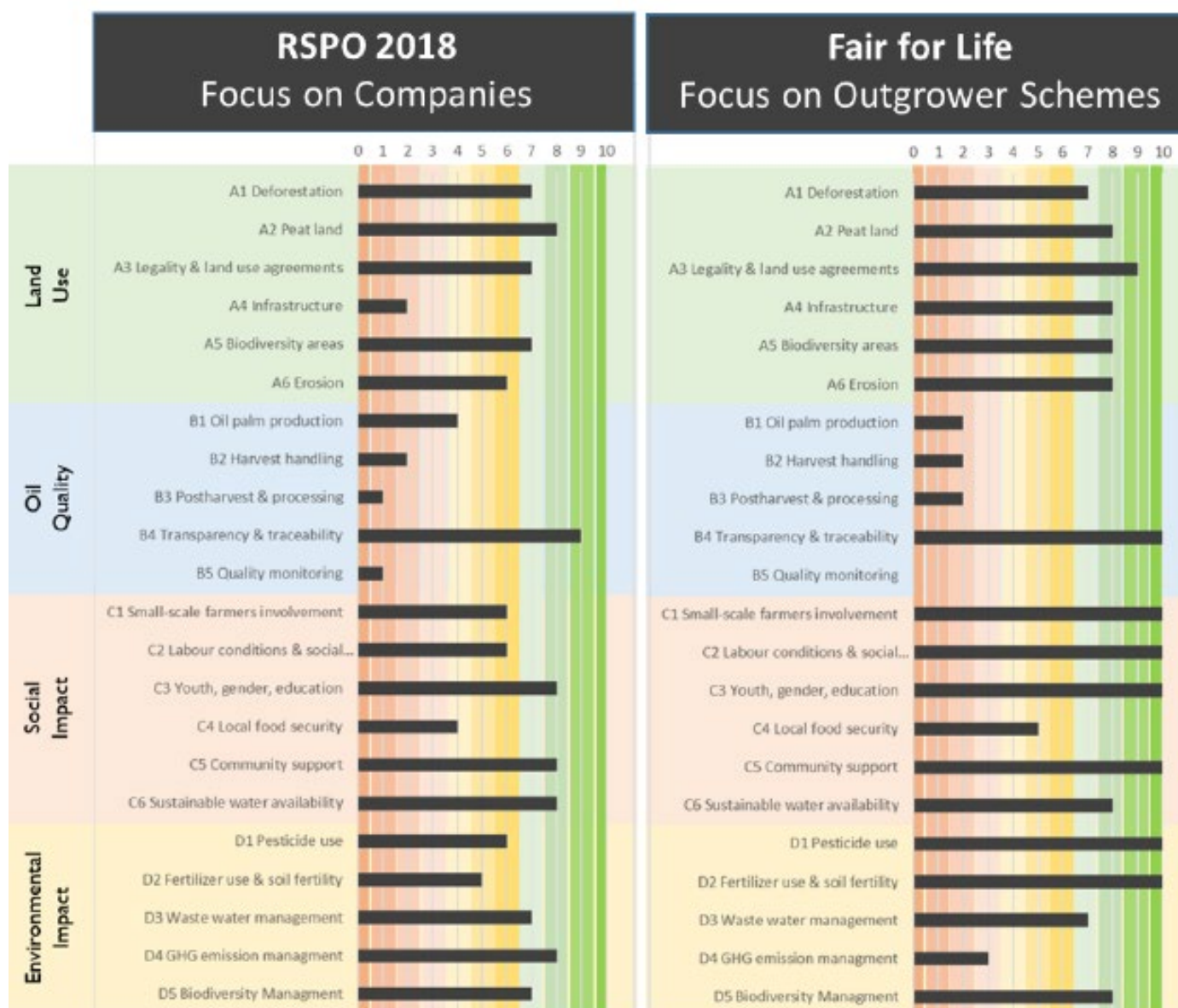
Yaap and Paoli looked at eleven environmental evaluation criteria and 20 social ones, using scores of (1) = strong and clear requirements (green shading), (2) = issue is addressed but requirements are less clear (yellow), and (3) = issue is not directly addressed and/or requirements are not clearly defined or comparatively lenient (red).

A summary of the results is shown in Table 3. Yaap and Paoli emphasize that this table is a high-level overview only and that the standards treat most themes nuanced, requiring “reading the fuller comparison for a deeper understanding of how issues are addressed in each standard”. If we despite this caution compare the standard based on Table 3, RSPO fully addresses most of evaluation criteria used by Yaap and Paoli, followed by ISCC and SAN, with similar scores and ISPO in the last place.

Synopsis: The four studies reviewed here arrive at remarkably similar results in terms of their overall ranking of standards, despite different focus areas in the studies, different assessment methodologies and, in some cases, different standard versions. To visualise this, we collated all certification standards that were included in at least two of the four studies, ranked the standards within each study and then calculated an average rank.

The result is shown in Table 4: RSB (included in two studies) had the highest average rank, closely followed by RSPO. With a gap, ISCC and Rainforest Alliance follow, before, with another gap, MSPO and ISPO.

It’s worth mentioning that POIG and Fair for Life were only included in one study each, though where included, they ranked second and first, respectively [14, 19].



Legend

0	not covered
1	marginally covered, important aspects missing
2	
3	
4	partially covered, different aspects missing
5	
6	
7	almost fully covered, minor aspects missing
8	
9	
10	fully covered

Figure 3: Results from Bernet and van den Berge (2019), looking at the 'hotspot coverage' of RSPO and Fair for Life, against FiBL's Palm Oil Hotspot Analysis. Source: [19], Figure 18.

Table 3: Results from Yaap and Paoli (2014), showing scored evaluation criteria for RSPO (2013 P&C), ISCC (2012), SAN (2010, the predecessor to Rainforest Alliance SAS) and ISPO (2012). Note that this study analysed older version of the standards than our study. Key: (1) = strong and clear requirements (green shading), (2) = issue is addressed but requirements are less clear (yellow), and (3) = issue is not directly addressed and/or requirements are not clearly defined or comparatively lenient (red). Source: [17, pp. ix-x].

Themes and procedures	RSPO	ISCC	SAN	ISPO
Environmental				
Environmental Impact Assessment (EIA)	1	3	1	2
High Conservation Value (HCV)	1	3	3	2
Biodiversity Conservation (outside of HCV)	1	1	1	2
Greenhouse Gases (GHG)	1	1	1	1
Peatlands	2	1	1	2
Soil (other than peatlands)	1	1	1	1
Forest clearance	2	1	1	3
Riparian forests and buffers around water bodies	1	1	1	1
Agrochemicals	1	1	1	1
Water Conservation	1	1	1	1
Waste management	1	1	1	1
Social				
Social Impact Assessment (SIA)	1	1	1	2
Community benefits	1	2	2	1
Community consent and land acquisition				
A. Community consultation	1	2	2	2
B. Free and prior informed consent (FPIC)	1	3	3	3
C. Land rights and acquisition	1	2	2	2
D. Compensation	1	1	2	1
E. Conflict resolution	1	1	1	1
Employment				
A. Contracts	1	1	1	3
B. Wages	1	1	1	1
C. Other conditions and benefits	2	2	2	3
D. Freedom of association and bargaining	1	1	1	1
E. OH&S	1	1	1	2
F. Living Conditions	1	1	1	2
G. Human rights	1	1	2	2
H. Forced labor	1	1	1	3
I. Child labor	1	1	1	2
J. Child access to education	1	1	2	2
K. Discrimination	1	1	1	1
L. Women	1	3	3	3
M. Indigenous people	1	3	3	1

Table 4: Synopsis of the four comparative studies reviewed here. Standards that were present in at least two studies were included. Standards are ranked within each study, according to the study's own assessment criteria and with the best performing standard taking rank 1, the second-best performing rank 2 etc. Average ranks for each standard are calculated across the studies. Note that some of the studies analysed older version of the standards than were used in our study.

Standard	Schleicher et al. (2019) [15]	Tinhout & van den Hombergh (2019) [16]	McInnes (2017) [14]	Yaap & Paoli (2014) [17]	Average rank
	Rank in study				
RSB	1		2		1.50
RSPO	2	1	1	1	1.67
ISCC	3	2	4	2	2.75
SAN/Rainforest Alliance SAS	4	3	3	3	3.25
MSPO		4	5		4.50
ISPO	5	5	6	4	5.00

4 Methods

4.1 The Certification Assessment Tool (CAT)

SECO had identified the WWF's Certification assessment Tool (CAT) as a suitable benchmarking tool for assessing the selected palm oil certification schemes. CAT analyses certification schemes at the system level, both in terms of the governance requirements of the scheme and the good practices required by the scheme. A CAT analysis is desk-based, evaluating the normative and procedural documents of the certification scheme, such as codes, scheme rules, certification and audit guidelines, terms of membership etc. The number and scope of the analysed documents differs by certification scheme. In some cases, ancillary sources of information need to be included, like scheme websites.

The CAT was originally developed by WWF for the analysis and comparison of sustainable forestry standards. Version 4.0, published in 2014, also applies to certification schemes for agricultural products. The CAT is divided into two parts

- Part I, looking at the certification scheme rules and governance; and
- Part II, looking at the good practice requirements of the standard itself.

Each part comprises a set of sub-headings and a total of 80 criteria per part:

Part I: Scheme governance

- A. MISSION AND GOVERNANCE (20 criteria)
- B. SETTING STANDARDS (20 criteria)
- C. CERTIFICATION (20 criteria)
- D. ACCREDITATION (10 criteria)
- E. CHAIN OF CUSTODY (10 criteria)

Part II: Standard

- A. LEGALITY, TENURE AND USE RIGHTS (10 criteria)
- B. COMMUNITY RELATIONS (10 criteria)
- C. WORKERS' RIGHTS (10 criteria)
- D. WATER AND SOIL (10 criteria)
- E. BIODIVERSITY (10 criteria)
- F. POLLUTION, WASTE AND GREENHOUSE GAS EMISSIONS (10 criteria)
- G. PLANNING AND TRANSPARENCY (10 criteria)
- H. AGRICULTURE: OTHER GOOD PRACTISE (10 criteria).

A complete list of all CAT criteria is provided in Appendix I: List of Extended CAT criteria.

4.2 Strategic fit of CAT

A mapping exercise showed that the CAT covers most of the core sustainability requirements mentioned in the EFTA agreement with Indonesia. It also revealed areas which are not, or only partially, covered, namely

- a) producer's economic sustainability;

-
- b) a commitment to smallholder training; and
 - c) a commitment to sector collaboration.

In the first steering group meeting for this project, stakeholders expressed the wish that these gaps be plugged. In addition, they highlighted

- d) the need to strengthen social and human rights requirements for the palm oil sector;
- e) the absence of requirements for energy efficiency and renewable energy; and
- f) the importance of including criteria for a scheme's monitoring and evaluation and impact measurement efforts, in line with ISEAL Alliances Impacts Code, version 2.0, which postdates the original CAT.

Criteria addressing these areas were developed and added to the CAT for the purpose of this study, see following section.

4.3 Adaptation of the CAT for the purposes of this project: Extended CAT

Two structural changes were made to the CAT to adapt it to the requirements of this project

1. Scope extension to include those elements that were identified as missing, see Section 4.2
2. Differentiation of standard assessment criteria.

In order to distinguish the Extended version from the original CAT we refer to it as 'Extended CAT' throughout this report.

Scope extension

We added 30 new criteria to the original 160 CAT criteria, namely

1. Section F. of Part I: ten additional criteria on *Impact monitoring and evaluation*. These were based on the ISEAL Alliance's Impacts Code [20] and cover the full scope of the Codes' Baseline requirements⁶. The language was kept as closely to the original wording as possible to make visible the provenance
2. Section C-a. of Part II: ten additional criteria on *Human and workers' rights*. These were developed by mapping the requirements of the Ethical Trade Initiative (ETI) Base Code [21] against the existing human and workers' rights criteria of the CAT (section C of Part II). The ETI Base Code's scope is wider than that of the CAT. We constructed ten criteria covering those requirements of the ETI Base Code that were not yet included in the CAT. The language was kept as closely to the original wording as possible to make visible the provenance
3. Section I. of Part II: ten additional criteria on *Other good practices for palm oil mills*. These include two requirements each for (a) the treatment of palm oil mill effluent (POME); (b) the recycling of empty fruit bunches (EFB); (c) energy efficiency and renewable energy; (d) sector collaboration and outreach; and (e) smallholder economic sustainability and supplier sustainability. These criteria were designed to fill identified gaps in the CAT and based on consultation with experts from FiBL and the WWF.

⁶ The ISEAL Impacts Code contains 'Baseline', 'Improvement' and 'Aspirational' clauses. *Baseline* clauses are the minimum compliance requirements that standards systems need to meet to become an ISEAL Associate Member. *Improvement* clauses must be met by Full Members within three years, *Aspirational* clauses are optional good practices.

Differentiated assessment

Extent of coverage

In its original version, the CAT looks at whether criteria are included in a standard or not, i.e. takes a 'yes/no' approach. In practice there are however often cases where a standard will meet a criterion only in part. This may be the case where the CAT criterion includes several requirements – e.g. "Producers are required to assess and maintain High Conservation Values [...]" requires a standard to stipulate both the systematic assessment and the maintenance of High Conservation Values. A standard may, however, only demand the assessment of High Conservation Values but not their maintenance. Another example is where the requirements of a standard are less stringent than the CAT criterion. In these cases, a standard meets the CAT criterion partially. Equally, in some cases, standards go beyond the requirements of the CAT.

We therefore introduced a more differentiated assessment scale for the extent of criteria coverage:

- Exceeds CAT requirements: the requirements of the assessed standard go beyond this Extended CAT criterion;
- Fully included: the requirements of the assessed standard are equivalent to this Extended CAT criterion;
- Partially included: the standard includes requirements similar to this Extended CAT criterion, but to a lesser extent or rigour;
- Not included: the standard does not include this Extended CAT criterion or only includes it with a substantially lower extent or rigour;
- N/A (not applicable): this Extended CAT criterion is not applicable for the defined scope or intended use of the assessed standard (e.g. the criteria on prohibition of genetically modified varieties were evaluated as 'N/A' for palm oil specific standards because there are not genetically modified oil palm varieties).

Strength of standard requirements

Many certification schemes also have requirements of different classes, such as 'major musts' and 'minor musts', for which there are different rules. Differences between classes may concern the extent to which requirements need to be complied with, the timing or the treatment of non-compliances. Not all certification schemes have different classes and those that do differ in how they define them.

For the purposes of this study we used the following classification of criteria strength:

- Critical: a requirement that (a) must be met at all times and (b) leads to immediate suspension or cancellation of the certificate if not met
- Must: a requirement that must be met at all times. Non-compliances can be rectified within a defined period of time
- Facultative must: any other binding requirements that do not meet the definition of a *must*, such as requirements that only need to be met in later years, or that are part of a set of requirements, of which a certain percentage need to be met
- Recommendation: a non-binding requirement or statement of commitment, e.g. in the preamble text of the standard. *Recommendations* have no effect on the decision to grant certification or not.

None of the benchmarked standards has different classes of requirements for the criteria of Part I (scheme governance). By default, we evaluated all requirements relating to this part as ‘must’, unless explicitly described as explicitly less stringent, in which case we evaluated them as ‘facultative must’.

In many cases, a single Extended CAT criterion is met by a combination of requirements of a certification scheme. Where these belonged to different classes, we took a judgement on which class to assign, usually based on the majority or, in case of equal numbers using, the weaker class.

4.4 Evaluation process and caveats

Standards were initially evaluated based on publicly available information in English or German, such as scheme documents and websites. Standard owners were then invited to comment on the Initial benchmarking results and to contribute further information and views. RSPO, Rainforest Alliance, ISCC and Bio Suisse submitted several rounds of feedback, which was considered in the final version of the benchmarks.

Note the following caveats

1. Certification schemes differ widely in their ethics, culture, scope, approach, implementation support on the ground etc. Viewing them through the lens of a standardised assessment tool like Extended CAT is unlikely to do all their intricacies justice. In particular, there may be requirements or entire components of the certification scheme that are outside the scope of Extended CAT and were hence not captured.
2. A CAT/Extended CAT assessment evaluates the certification schemes on paper, but neither their implementation on the ground nor their impacts.
3. The governance section (Part I) of CAT is biased towards roundtable initiatives like the RSPO, emphasizing decision making by consensus, equal representation of industry, civil society and public sector actors and fully transparent standard setting processes. This disadvantages standards that are owned by NGOs (e.g. Rainforest Alliance) or produce associations (e.g. Bio Suisse).

4.5 Excel sheet

An Excel Workbook with the detailed benchmark for each standard accompanies this report and is published as part of Annex I. Each workbook contains technical and methodological notes and guidance. The actual benchmarking evaluation can be found on the sheets ‘Part I-Scheme’ and ‘Part II-Standard’, in D (‘Proof of rating’), F (‘Coverage’), G (‘Strength’) and H (‘Gaps /recommendations’).

A filtering function was included (columns I to K, ‘Filter’) that enables users to create bespoke evaluations by including or excluding criteria in the analysis results. All other columns are pre-defined or CAT legacy and were not functional.

5 Analysis and Results by Certification Scheme

5.1 Roundtable on Sustainable Palm Oil (RSPO)

Results of the benchmarking analysis

Figure 4 shows the benchmarking results for the RSPO P&S 2018. Further results are included in Annex I a.1, including the results of a full WWF CAT analysis. RSPO scores highly on most aspects of governance (Part I, Scheme) and good practice (Part II, Standard) and has the second highest overall score of all analysed standards, after POIG.

Note that RSPO offers four different chain of custody models which differ in the extent to which they meet the Extended CAT criteria. Results shown in this report assume that the stronger options – *Identity Preserved* (IP) or *Segregated* – are used. If using the *Mass Balance* or *Book-and-Claim* options, then Part I *E. Chain of custody*, scores lower. Full results for these two options are available in Annex I a.2

Overall, RSPO covers Extended CAT criteria to a large extent. Gaps exist in

1. Part II, sections *B. Community relations* and *C-a. Workers' rights, other criteria*, both of which cover all Extended CAT criteria but many of them only partially;

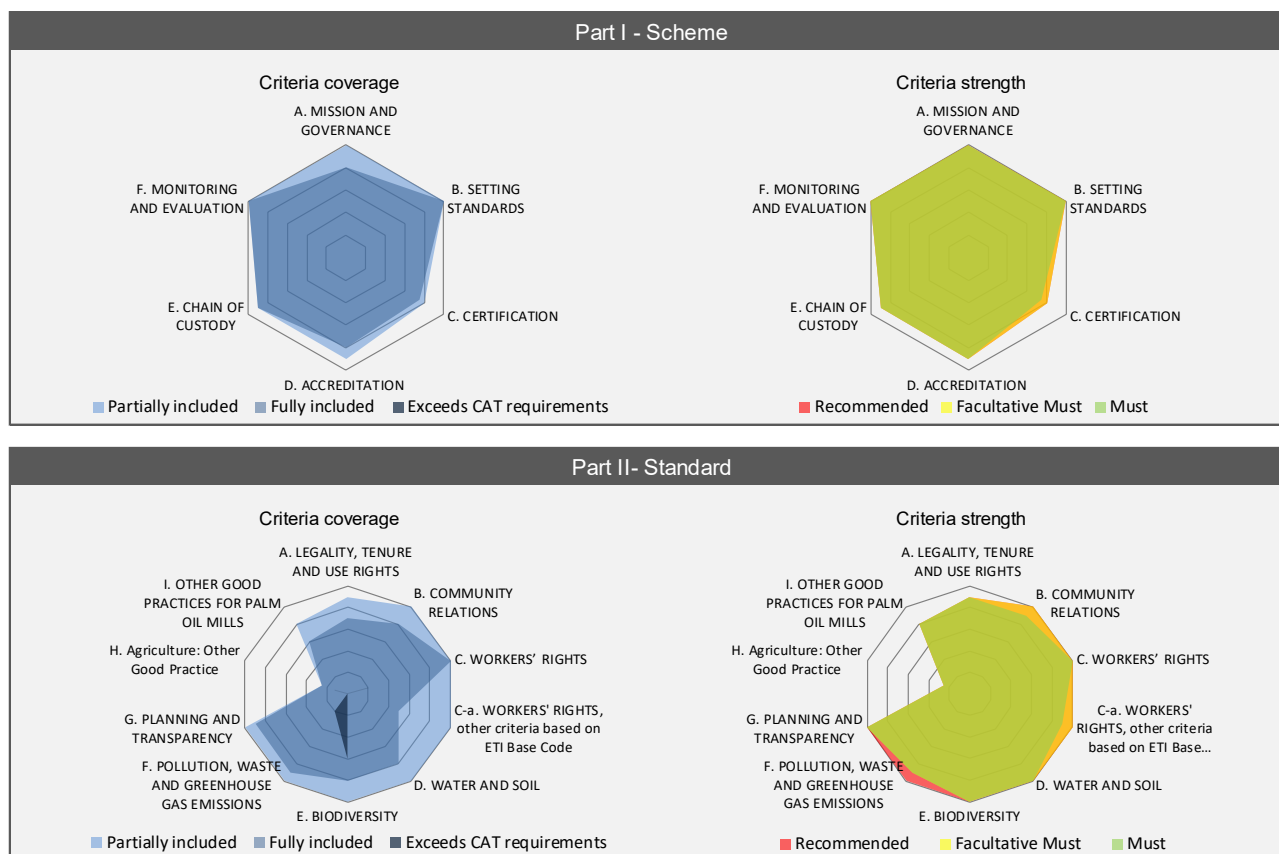


Figure 4: Overview of benchmarking results of RSPO, assuming Identity preserved (IP) or Segregated chain of custody models.

-
2. Part II, section *H. Agriculture: Other good practices*. Here, the absence of requirements for crop diversity, tighter restrictions on the use of hazardous pesticides and irrigation efficiency result in a lower score than Bio Suisse Organic, Rainforest Alliance SAS, ISCC PLUS and POIG.

Methodological notes

Chain of custody (CoC) models:

RSPO offers four different supply chain models, which differ in their extent of physical identity preservation of the certified palm oil. Two of the four models *Identity Preserved* (IP) and *Segregated* allow physical traceability to certified mills. The other two models (*mass balance* and *book-and-claim*) are an administrative traceability system rather than a physical traceability to a certified mill. For this study, we analysed both cases (physical traceability and administrative traceability). Shown in Figure 4 are the results for the two physically traceable models (IP and Segregated) because the other two are not used by Swiss companies in practice [22].

Documents and sources used:

1. Website: <https://rspo.org/>
2. RSPO Principles and Criteria 2018
3. RSPO Certification Systems for Principles & Criteria, June 2017
4. RSPO Code of Conduct for Members of The Roundtable on Sustainable Palm Oil (undated)
5. RSPO Complaints System (applicable to cases before 1 August 2017) (undated)
6. RSPO Impact Report 2018
7. RSPO Theory of Change and M&E System Development ('Listen-and-Learn-Report'), June 2017
8. RSPO Monitoring and Evaluation (M&E) Core Indicators 2018
9. RSPO Rules on Market Communications and Claims, 2016
10. RSPO Standard Operating Procedure for Standards Setting and Review (SOP), June 2017
11. RSPO Supply Chain Certification Systems for accreditation and certification bodies, revised June 2017
12. RSPO By-laws (undated)
13. RSPO guidance for Implementing a Decent Living Wage, approved June 2019
14. RSPO Manual on Best Management Practices (BMPs) for the Management and Rehabilitation of Riparian Reserves, endorsed April 2017

Evaluation of requirement classes:

Classes of RSPO requirements	Classification in our assessment
Critical indicators	Must*
Indicators with grace period	Facultative must
Other indicators	Must

* RSPO P&C 2018 identify 'critical indicators', however, based on the Certification System 2017 rules we were not able to establish how these would be treated differently from other indicators.

Recommendations

A set of detailed recommendations for RSPO is provided in a separate file (Annex II to this report), which would, if implemented, lead to full compliance with all Extended CAT criteria. General recommendations are to

1. Clarify how indicators marked as 'Critical' in the 2018 P&C differ from other indicators;
2. Strengthen the requirements around community relations, advanced worker's rights and good agricultural practices, such as increasing crop diversity, tighter restrictions on the use of hazardous pesticides and increasing irrigation efficiency.

5.2 Rainforest Alliance

Results of the benchmarking analysis

Figure 5 shows the benchmarking results for the Rainforest Alliance 2017 Sustainable Agriculture Standard (SAS). Further results are included in Annex I b, including the results of a full WWF CAT analysis. Rainforest Alliance scores highly on most aspects of governance (Part I, Scheme) and good practice (Part II, Standard) and has, together with ISCC PLUS, the third highest overall score of all analysed standards, after POIG and RSPO.

There are gaps in

1. Part I, section A. *Mission and governance*, because, as an NGO standard, Rainforest Alliance is not bound to the roundtable governance mechanisms which underlay many of the Extended CAT criteria. Though Rainforest Alliance follows ISEAL best practice in standard setting [23], decisions regarding content, scope and depth of the Rainforest Alliance standard are ultimately Rainforest Alliance's prerogative and not based on consensus in a multi-stakeholder process;
2. Part I, section D. *Accreditation*. However, this is true for most of the benchmarked standards. The overall low compliance is because Extended CAT includes several criteria for the governance of accreditation bodies, which cannot be verified based on publicly available information alone. These criteria were therefore evaluated as 'not included'. Note that Rainforest Alliance is in the process of redesigning its Assurance System as a part of the merger with UTZ, so the rules relating to accreditation may change;

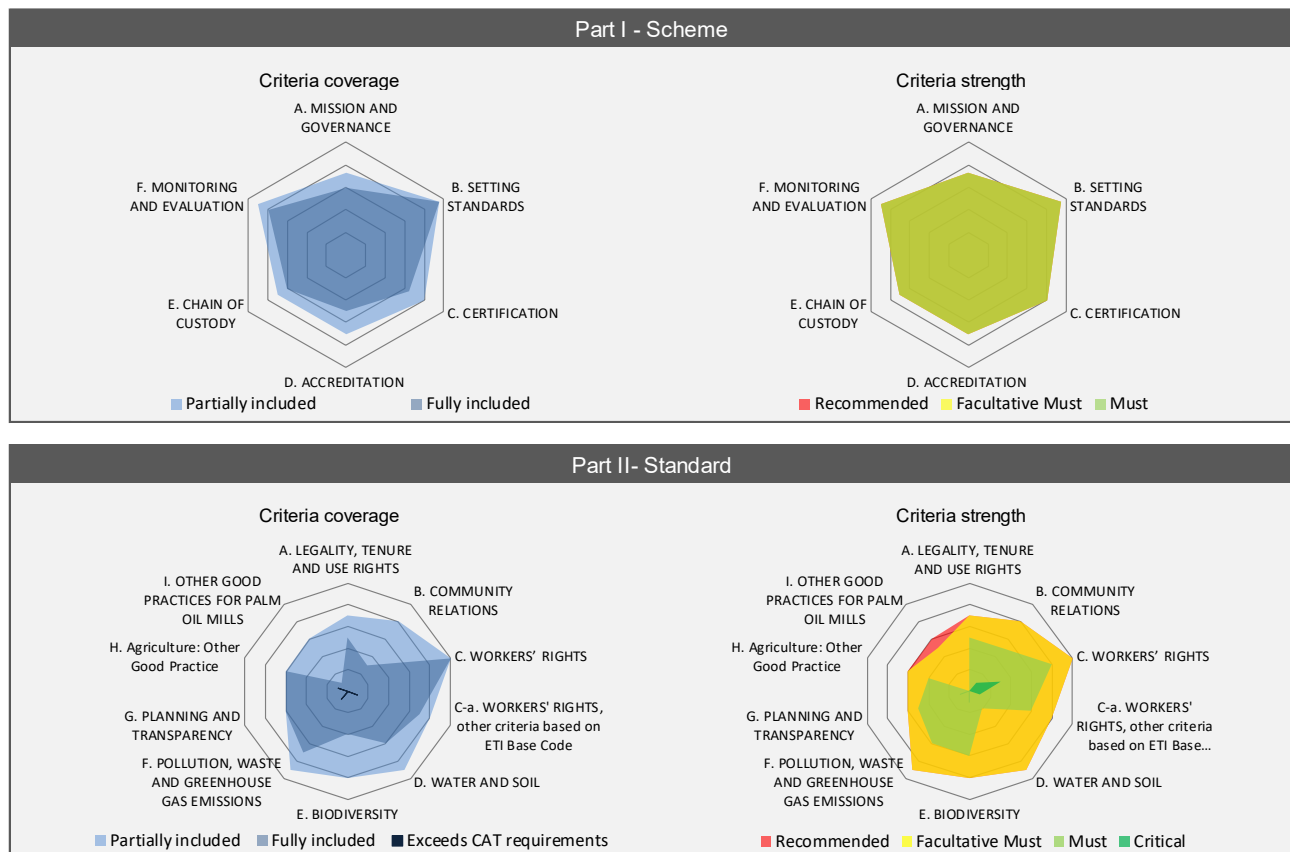


Figure 5: Overview of benchmarking results for Rainforest Alliance SAS.

-
3. Part II, sections *B. Community relations* and *E. Biodiversity*, where Rainforest Alliance addresses 80% of the Extended CAT criteria, but most of them only partially;
 4. Part II, section *I. Other good practices for palm oil mills*, where Rainforest Alliance addresses 60% of the Extended CAT criteria but most of them only partially.

Methodological notes

Documents and sources used:

1. Rainforest Alliance website: <https://www.rainforest-alliance.org/>
2. Sustainable Agriculture Standard for farms and producer groups involved in crop and cattle production. July 2017, Version 1.2
3. Certification Rules for Single Farms and Group Administrators. July 2017, Version 1.2
4. Lists for Pesticide Management Lists of Prohibited and Risk Mitigation Use Pesticides. July 2017, Version 1.3
5. 2018 Rainforest Alliance Impacts Report
6. Requirements and Guidelines for Use of the Rainforest Alliance Trademarks, July 2016
7. Rainforest Alliance Chain of Custody Standard, July 2015, version 3
8. Rainforest Alliance Chain of Custody Policy, July 2015, version 3
9. Rainforest Alliance Rules for the Authorization of Certification Bodies, April 2018, Version 1

Evaluation of requirement classes:

Classes of Rainforest Alliance requirements	Classification in our assessment
Zero-tolerance Critical Criteria	Critical
Critical Criteria	Must
Continuous Improvement Criteria	Facultative must

Recommendations

A set of detailed recommendations for Rainforest Alliance is provided in a separate file (Annex II to this report), which would, if implemented, lead to full compliance with all Extended CAT criteria. General recommendations are to

1. Review its *Mission and governance* and *Accreditation* scores vs. Extended CAT and identify improvement potentials in line with Rainforest Alliance objectives and structures;
2. Strengthen *Community relations*, *Biodiversity* and *Other good practices for palm oil mills* where Rainforest Alliance addresses the majority of criteria, but most of them only partially.

5.3 ISCC PLUS

Results of the benchmarking analysis

Figure 6 shows the benchmarking results for the ISCC PLUS version 3.0. Further results are included in Annex I c, including the results of a full WWF CAT analysis. ISCC PLUS scores between 60 and 80% on governance (Part I, Scheme) and between 80 and 100% in seven out of ten areas of good practice (Part II, Standard). Together with Rainforest Alliance and after POIG and RSPO, it has the third highest overall score of all analysed standards.

ISCC PLUS scores high on all sections of Part I and most of part II, though many Extended CAT criteria are only partially addressed. There are gaps in

1. Part I, section *F. Monitoring and evaluation*, may suffer from the fact that ISCC's impact monitoring systems is in its infancy: The 2018 Impact report was the organisation's first. It is testimony of the organisation's commitment to impact reporting, but otherwise contains little information about its M&E system or actual impacts;
2. Part II, *G Planning and transparency*: Requirements around producers' management plans seem a blind spot in the ISCC standard, leading to low scores here;

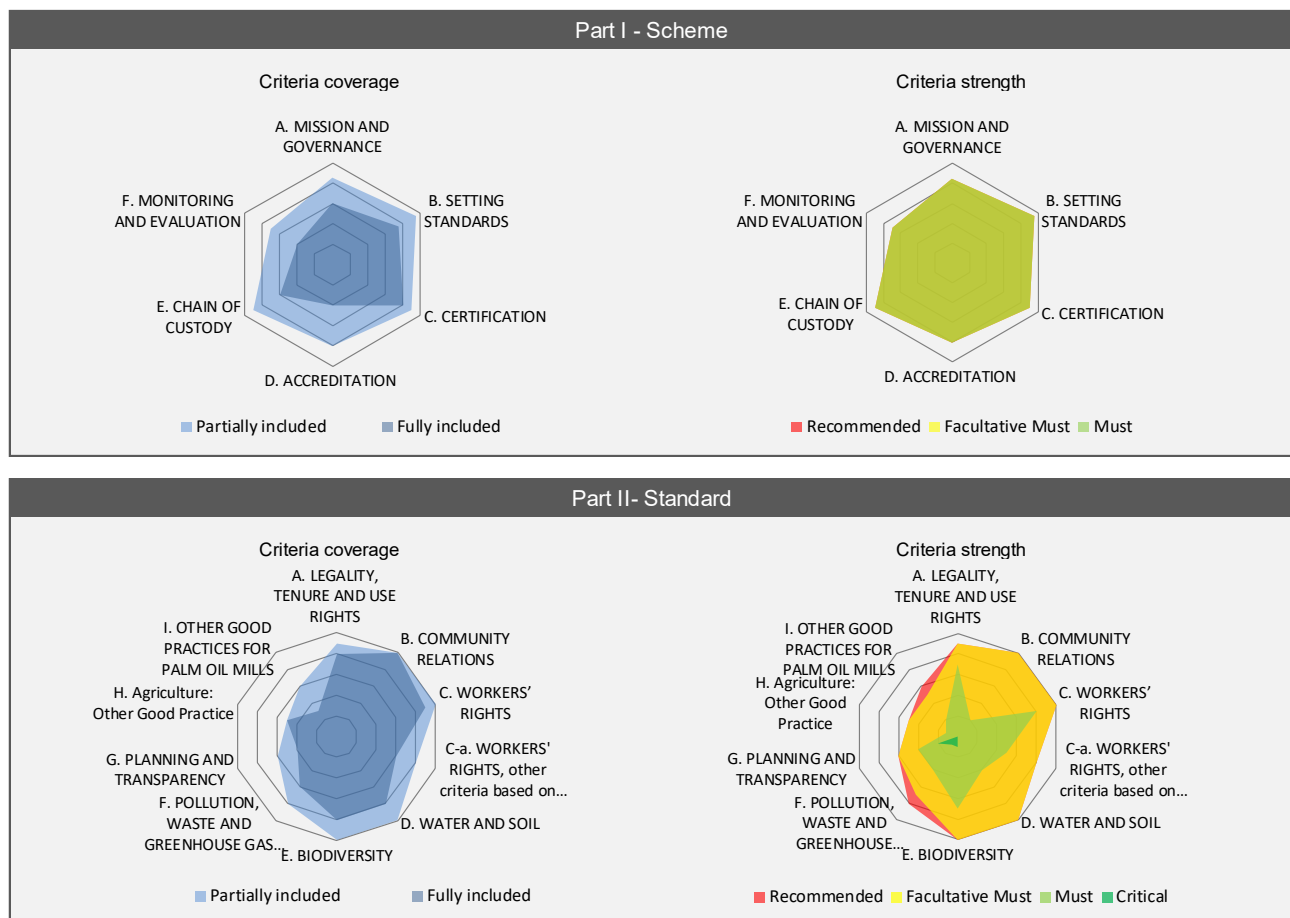


Figure 6: Overview of benchmarking results for ISCC PLUS.

-
3. Part II, sections *H. Agriculture: other good practices* and *I. Other good practices for palm oil mills*: Here the absence of requirements for crop diversity, alternative methods, replacement of hazardous pesticides and some of the palm-oil specific issues led to low scores.

Methodological notes

Documents and sources used:

1. ISCC website: <https://www.iscc-system.org/>
2. ISCC Impacts Report 2018
3. ISCC 208, Logos and Claim, version 1.1, 2018
4. ISCC 252, Regulations to carry out audits, version 1.16, January 2011
5. ISCC, 101, Statutes, version 1.14, March 2011
6. ISCC PLUS (System Document), version 3.0, August 2018
7. ISCC 255, Terms of Use, February 2017
8. ISCC 205, Greenhouse gas Emissions, version 3.0, 2016
9. ISCC 204, Audit Requirements and Risk Management, version 3.0, 2016
10. ISCC 203, Traceability and Chain of Custody, version 3.0, 2016
11. ISCC 202, Sustainability Requirements, version 3.0, 2016
12. ISCC 201, System Basics, version 3.0, 2016
13. ISCC 103, Requirements for Certification Bodies and Auditors, version 3.0, 2016
14. ISCC 102, Governance, version 3.0, 2016
15. ISCC PLUS 202 Sustainability Requirements for the Production of Biomass, version 3.0, February 2016
16. ISCC_EU_PLUS_Procedure_Farm_Plantation_v4.1.

Evaluation of requirement classes:

Classes of ISCC PLUS requirements	Classification in our assessment
Major musts in Principle 1 relating to land use *	Critical
Major musts	Must
Minor musts	Facultative must

* ISCC 102: 10.1 General Provisions: "Critical non-conformities pose a significant and vital risk to the integrity of ISCC and cannot be corrected. Examples are violations of ISCC Principle 1 [...]". ISCC 202: Introduction: "[...] If an audited producer of biomass is not in compliance with the land use related criteria in Principle 1, corrections are not possible." Based on these rules we evaluated the land use-related indicators of Principle 1 as 'critical'.

Recommendations

A set of detailed recommendations for ISCC PLUS is provided in a separate file (Annex II to this report), which would, if implemented, lead to full compliance with all Extended CAT criteria. General recommendations are to

1. Continue to build ISCC's impact monitoring capabilities and impact reporting, aiming at full transparency;
2. Review, and consider including, more agronomic and mill-related practices as evaluated in sections G., H. and I. of Part II of the Extended CAT.

5.4 Bio Suisse Organic

Results of the benchmarking analysis

Figure 7 shows the benchmarking results for the Bio Suisse, 01 Jan 2020. Further results are included in Annex I d, including the results of a full WWF CAT analysis. The Bio Suisse certification system has gaps in both governance (Part I, Scheme) and good practices (Part II, Standard). In both parts, certain aspects are missing entirely. In this context, it is important to highlight that in practice, all Bio Suisse Organic certified palm oil companies are currently RSPO certified. From 2021, RSPO certification will become a formal requirement for Bio Suisse Organic certification, so that Bio Suisse Organic requirements will have to be met in addition to RSPO requirements. This will shift the overall score of the Bio Suisse benchmark.

However, in this study, the Bio Suisse Organic 2020 Guidelines we used, which do not yet demand RSPO certification. On its own, Bio Suisse shows the following main gaps:

1. Part I: Here, sections *A. Mission and Governance* and *B. Standard setting* score low because of the institutional structure of Bio Suisse as a membership organisation, in which all matters are decided by the membership which only includes producers. Bio Suisse is not a member of the ISEAL Alliance and does not visibly commit to ISEAL best practice for standard setting or impact monitoring. The latter seems absent from the scope of the Bio Suisse certification system (possibly because research on organic agriculture is covered by other institutions, such as FiBL); explaining the low score in section *F. Monitoring and evaluation*;

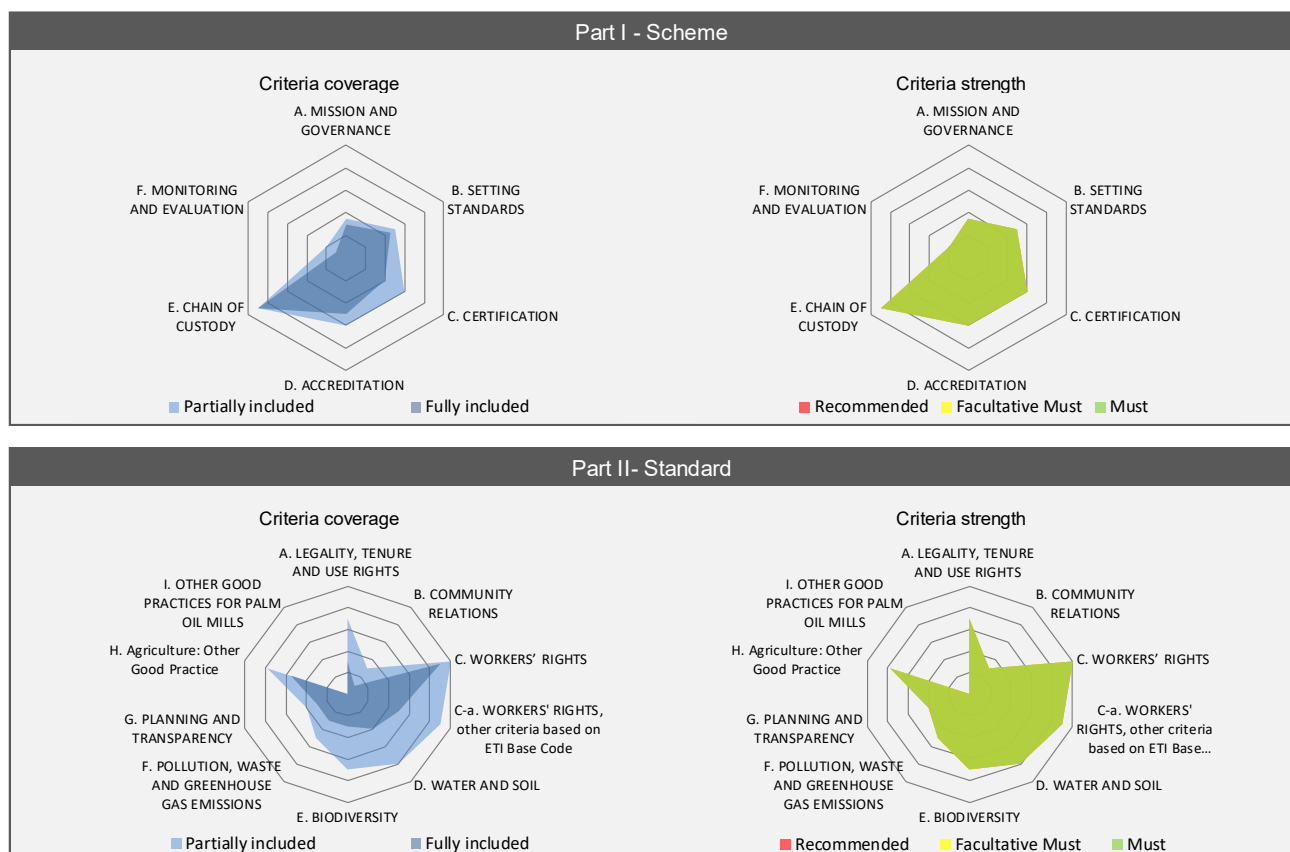


Figure 7: Overview of benchmarking results, Bio Suisse.

-
2. Part II: the areas covered in sections *B. Community relations* and *G. Planning and transparency* seem completely absent or out of Bio Suisse's scope;
 3. Part II, section *E. Biodiversity* is missing important practices around identification and monitoring of biodiversity and impact assessments; and section *F. Pollution, waste and greenhouse gas emissions* is missing good practice guidance on avoiding pollution. Both play a role in organic production systems for palm oil;
 4. Part II, section *I. Other good practices for palm oil mills*: here, the current Guideline (*Richtlinie*) for 2020 does not include any specifics. We received a working draft of Part V of the Guideline, which contains specific requirements for palm oil, such as requirements for handling palm oil mill waste. These requirements will be included in the 2021 version of the Bio Suisse Guideline, which will increase the score in this section.

These findings are consistent with findings of T. Bernet and P. van den Berge (2019) for FiBL [19, p. 40], who state that "RSPO standards are stricter and more detailed than Bio Suisse [...] in different relevant palm oil related aspects (such as regulations on H[igh] C[onservation] V[alues], H[igh] C[arbon] S[tocks], land-tenure and social accountability) [...]".

Methodological notes

Documents and sources used:

1. Website: <https://www.bio-suisse.ch/>
2. Bio Suisse – Richtlinien für die Erzeugung, Verarbeitung und den Handel von Knospe-Produkten (Version 01.01.2020)
3. Sanktionsreglement Ausland 2020 (DRAFT, Version 01.01.2020)
4. Bio Suisse Statuten, gültig ab 1. January 2018.

Evaluation of requirement classes:

All Bio Suisse requirements have equal weight and were classified as 'Must' in our assessment.

Recommendations

A set of detailed recommendations for Bio Suisse is provided in a separate file (Annex II to this report), which would, if implemented, lead to full compliance with all Extended CAT criteria. General recommendations are to

1. Integrate principles of ISEAL Alliance best practice for in the Bio Suisse governance, especially around standard setting and impact monitoring;
2. Recognise that identifying, protecting and monitoring of biodiversity as well as avoiding pollution play a role in the cultivation of organic oil palms, especially in the absence of the Swiss legal context in producer countries; and to strengthen the standard accordingly;
3. Consider inclusion of best practices for handling palm oil mill waste Part V (Imports) of the next version of the Bio Suisse Guideline, as per draft document.

5.5 POIG

Results of the benchmarking analysis

Figure 8 shows the benchmarking results for the POIG Verification Indicators, March 2016. Further results are included in Annex I e including the results of a full WWF CAT analysis. RSPO certification is the basis for POIG compliance. We hence used the RSPO benchmarking for RSPO and overlaid it with the additional requirements of POIG. POIG achieves the highest overall compliance with Extended CAT criteria of all benchmarked standards in this study. Identified gaps are the same as for RSPO:

1. Part I, section *E. Chain of Custody*, due to the fact that RSPO offers four different supply chain models, which differ in the extent to which they meet the Extended CAT criteria. Our assessment is based on the stronger options, *Identity preserved* or *Segregated*. If the options *Mass balance* and *Book-and-claim* were used, RSPO (and POIG) would score lower in this section;
2. Part II, section *H. Agriculture: Other good practices*. Here, the absence of requirements for crop diversity, tighter restrictions on the use of hazardous pesticides and irrigation efficiency result in a lower score than Bio Suisse, Rainforest Alliance and ISCC PLUS.

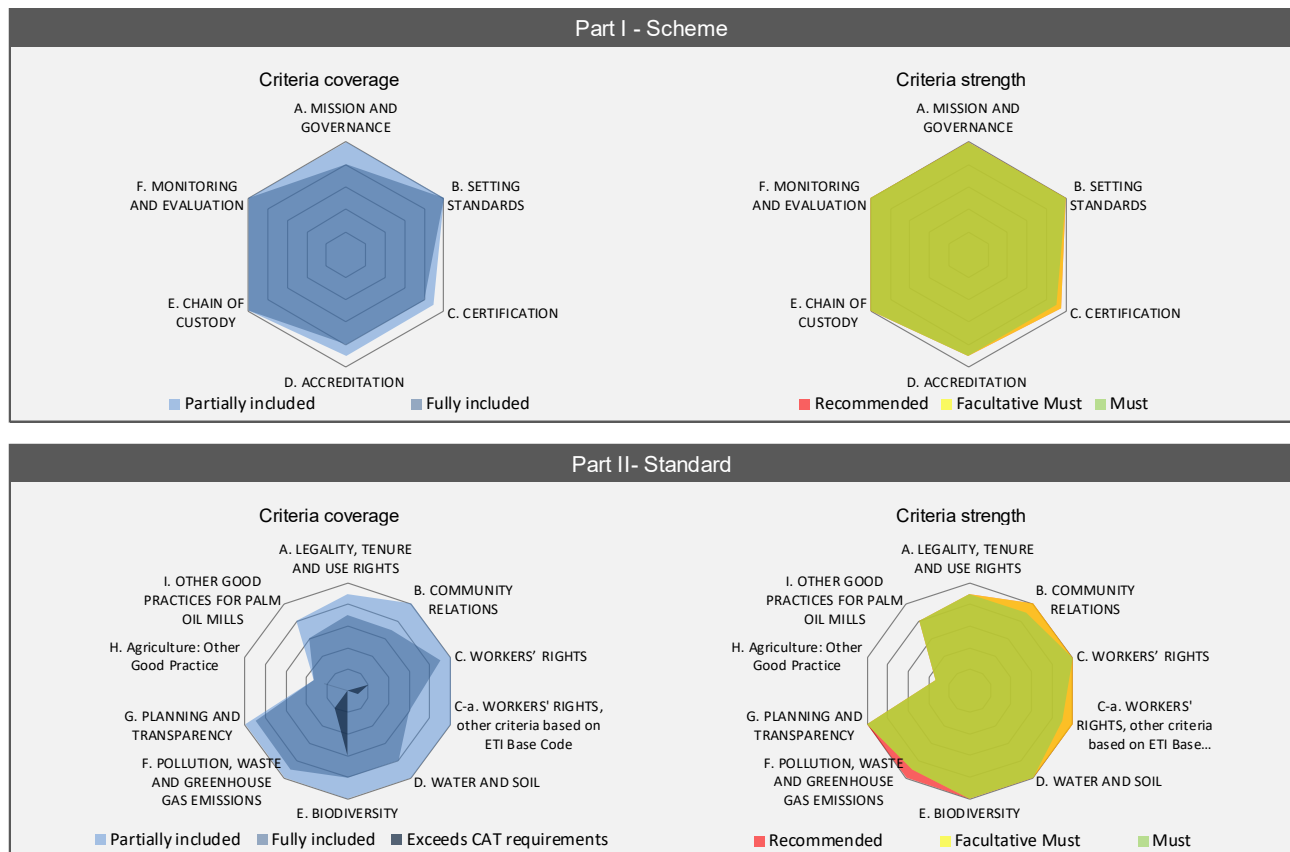


Figure 8: Overview of benchmarking results for POIG, based on RSPO Identity preserved or Segregated supply chain models.

Methodological notes

Inclusion of RSPO:

The POIG Charter and Verification Indicators require RSPO certification as follows:

3.4 RSPO certification and company operations

3.4.1 A minimum of 50% of the company's plantations and mills are RSPO certified upon commitment of this Charter.

3.4.2 Within 24 months of POIG membership, 100% RSPO certification of the company's plantations and mills is achieved.

3.4.3 Newly acquired plantations are RSPO certified within 24 months of acquisition.

3.4.4 A policy for purchasing 100% RSPO certified Fresh Fruit Bunches (FFB) within 24 months of signing the POIG Charter is developed, implemented and monitored for progress. Acceptable alternatives may be defined for independent smallholders."

POIG rules allow verification against the POIG Charter for producers that are not yet fully RSPO certified. For the purposes of this benchmark, we assumed full certification against RSPO as the basis of POIG, though. POIG verified producers may perform worse than indicated by our benchmarking analysis in situations where producers have not yet achieved full RSPO certification.

Documents and sources used:

1. POIG website: <http://poig.org/>
2. POIG Charter, version 1.0, November 2013 Impacts Report 2018
3. POIG Verification Indicators, March 2016
4. POIG Communications Policy & Guidance, February 2018
5. POIG Membership Eligibility & Terms of Engagement, version 2.0, July 2018
6. POIG Verification Audit Requirements, July 2018

Evaluation of requirement classes:

Classes of POIG requirements	Classification in our assessment
Non-conformities or verified complaints relating to: sexual harassment, environmental degradation, child labour, labour disputes, health and safety violations, community intimidation, worker abuse, tenure conflicts, violation of traditional rights, or harassment of human rights defenders (as per Verification Audit Requirements 2018, 3.2.3)	Critical
Major indicator	Must
Other indicators	Facultative must

Recommendations

A set of detailed recommendations for POIG is provided in a separate file (Annex II to this report), which would, if implemented, lead to full compliance with all Extended CAT criteria. General recommendations are to

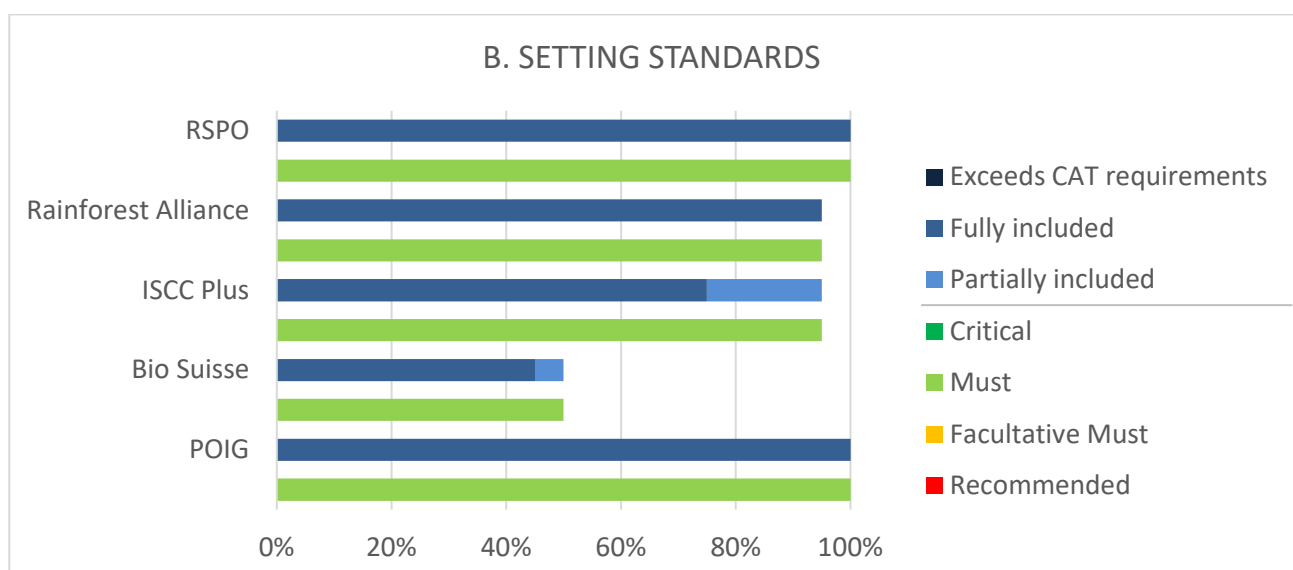
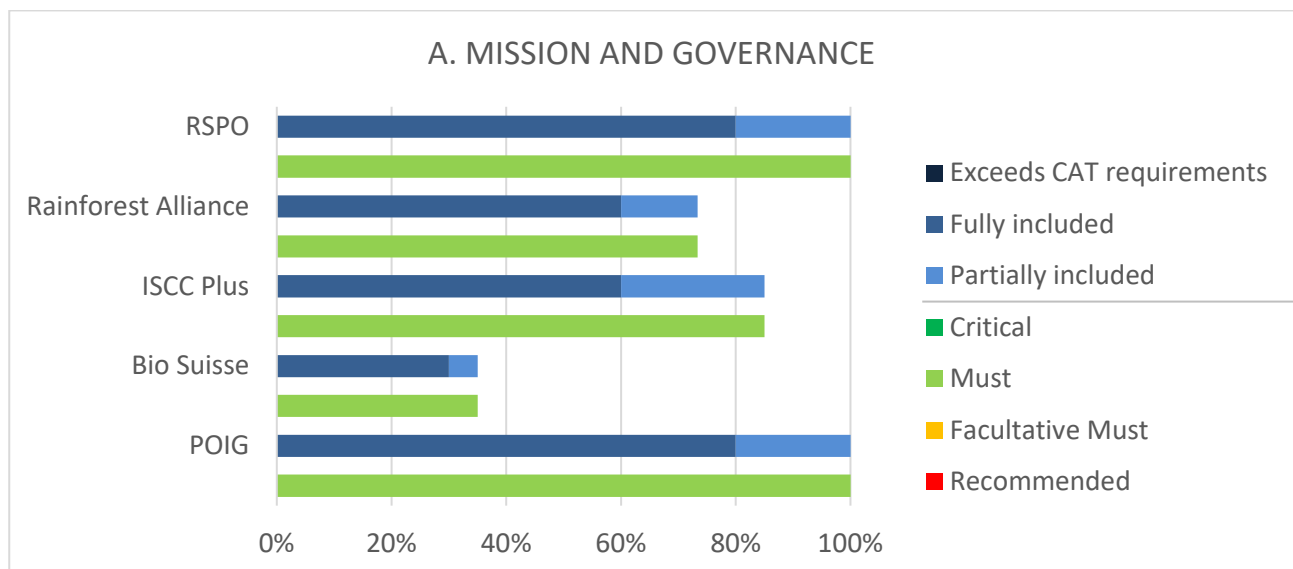
1. Identify systematically where RSPO requirements lack, compared to Extended CAT criteria, and to develop additional rules to strengthen these areas;
2. Strengthen the requirements around good agricultural practices, such as increasing crop diversity, tighter restrictions on the use of hazardous pesticides and increasing irrigation efficiency.

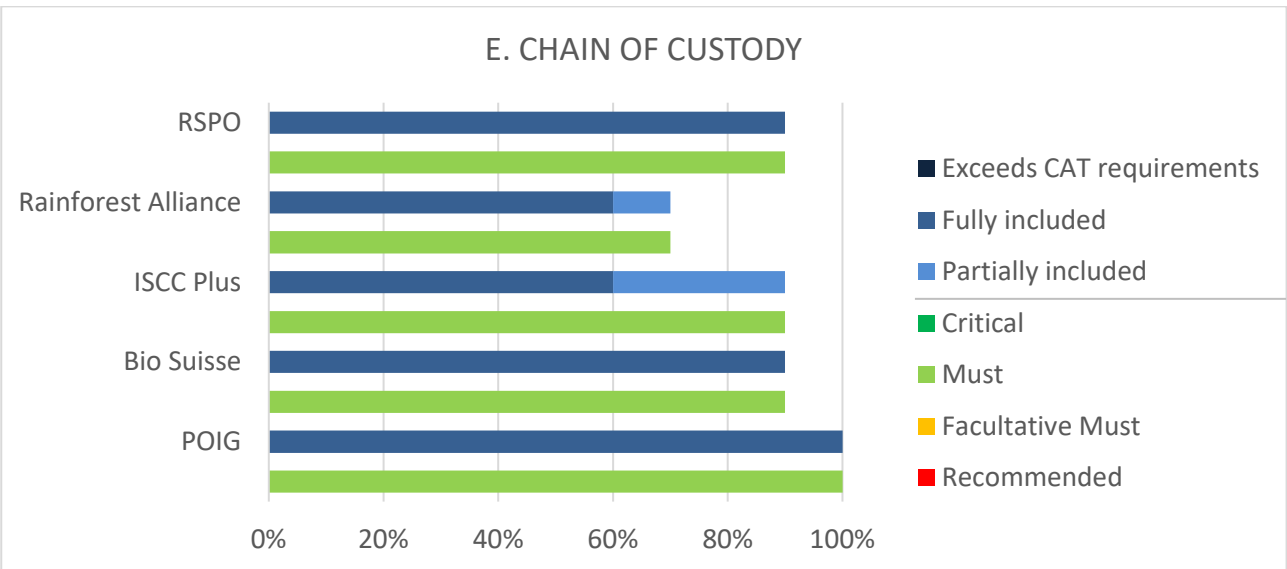
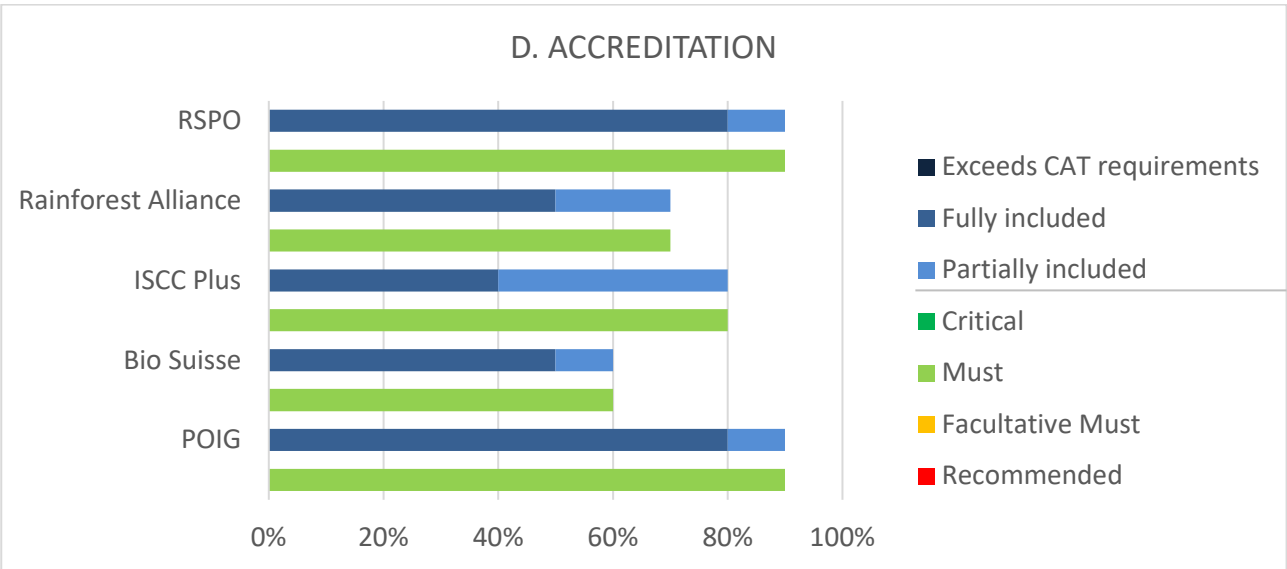
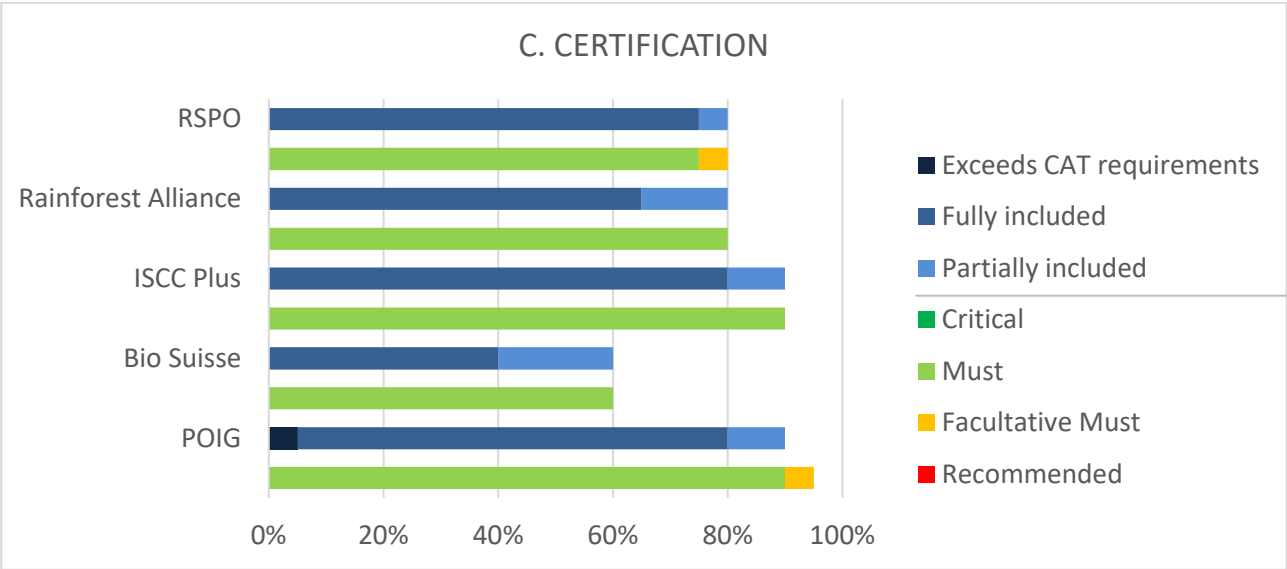
6 Results by Topic

This chapter shows a comparison of the five standards per section of the Extended CAT. Diagrams show two bars for each standard: The top bar (blue shades) shows the extent of coverage, as described in 4.3 [here](#). The bottom bar (green to red colour range) indicates the strength of the requirement in the analysed standard, as described in 4.3 [here](#).

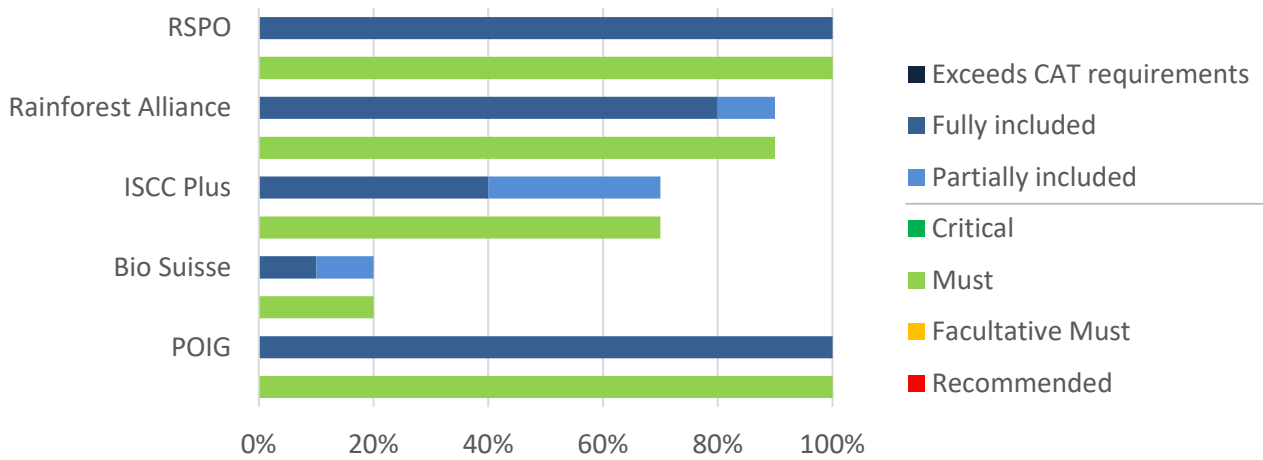
The results for RSPO and POIG refer to *Identity Preserved* or *Segregated* chain of custody models in RSPO. Bio Suisse results include the requirements of the EU Organic Directive, which are a requirement for imported products like palm oil.

6.1 Certification scheme governance

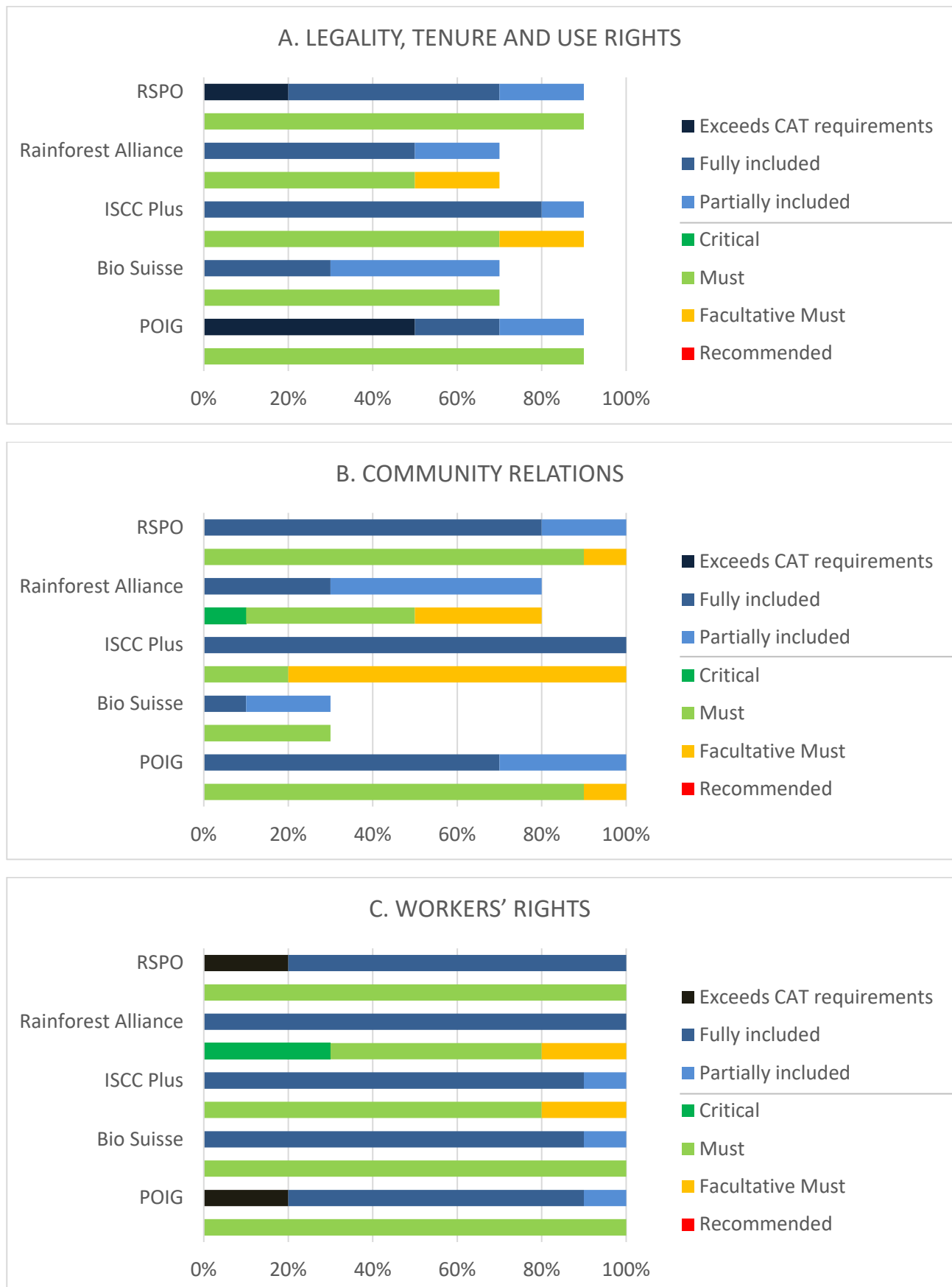




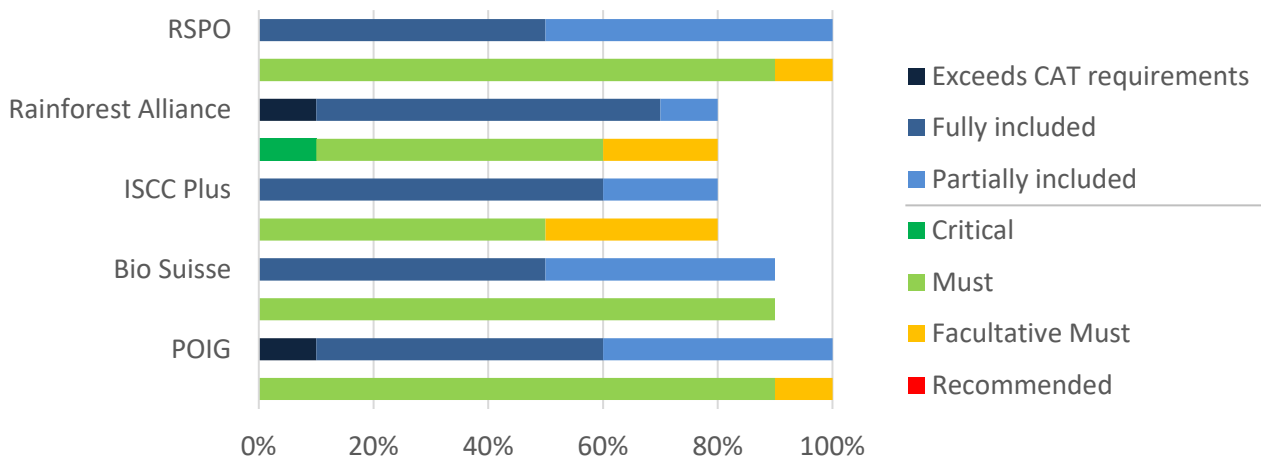
F. MONITORING AND EVALUATION



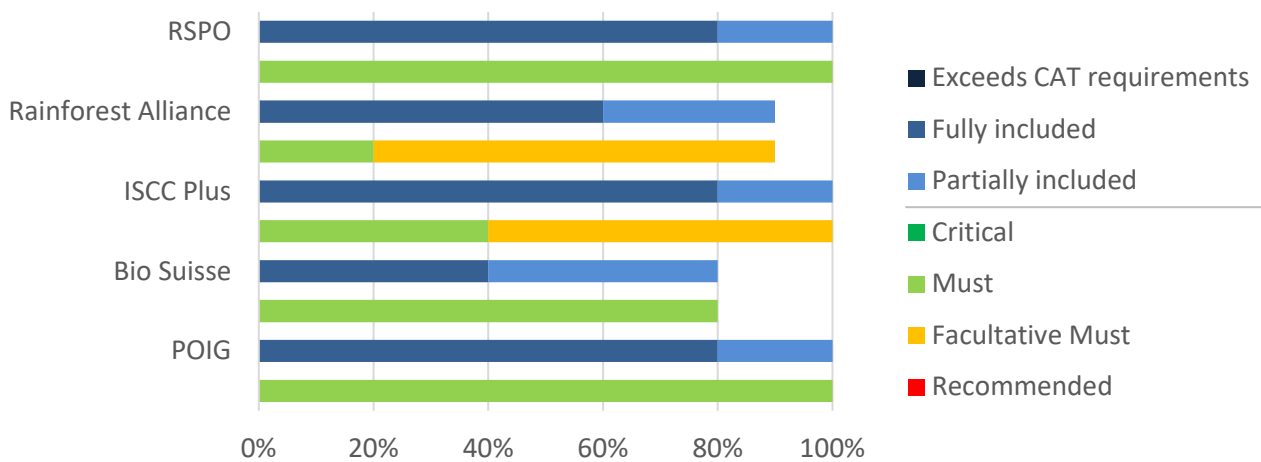
6.3 Certification scheme good practice requirements



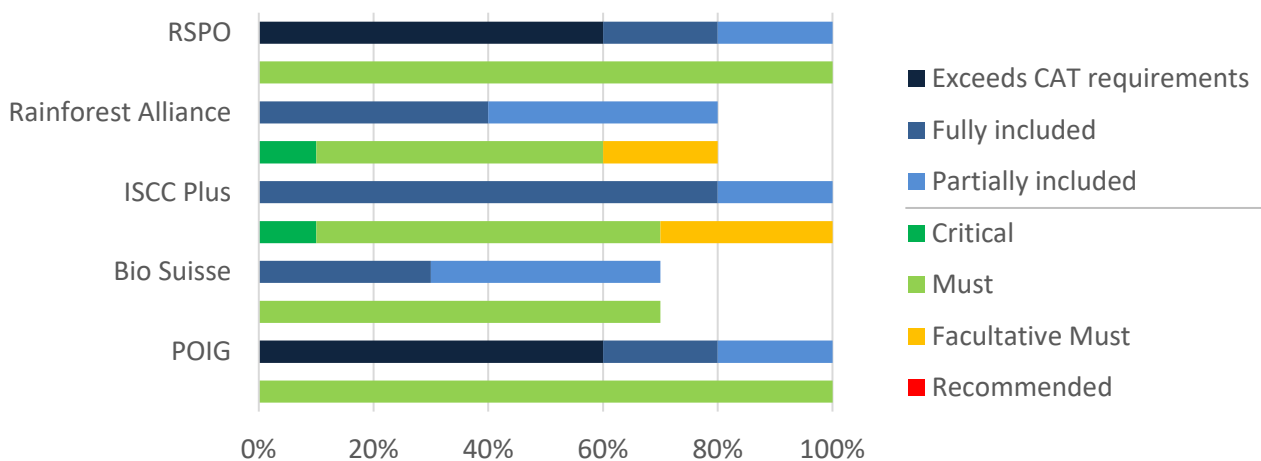
C-a. WORKERS' RIGHTS, other criteria based on ETI Base Code



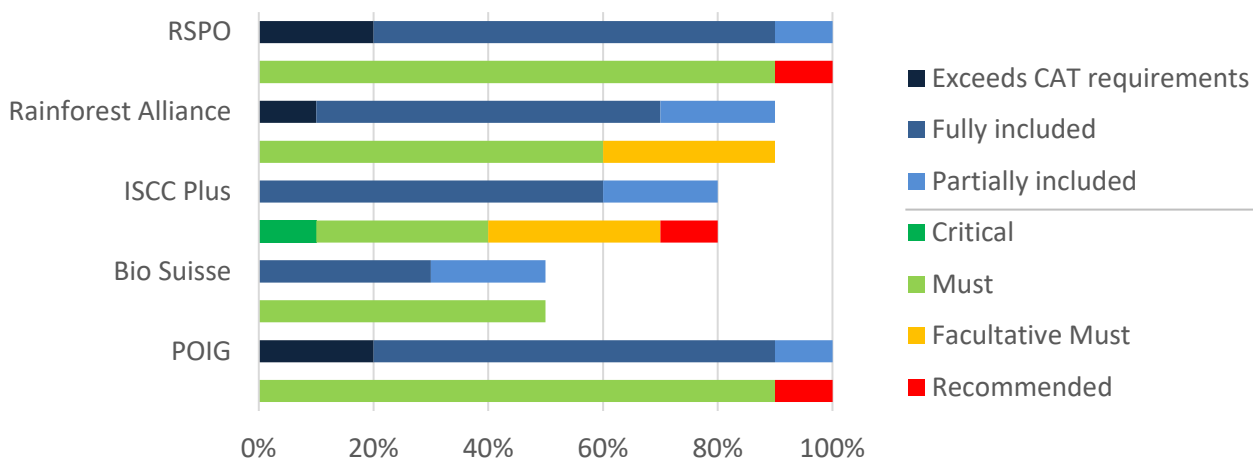
D. WATER AND SOIL



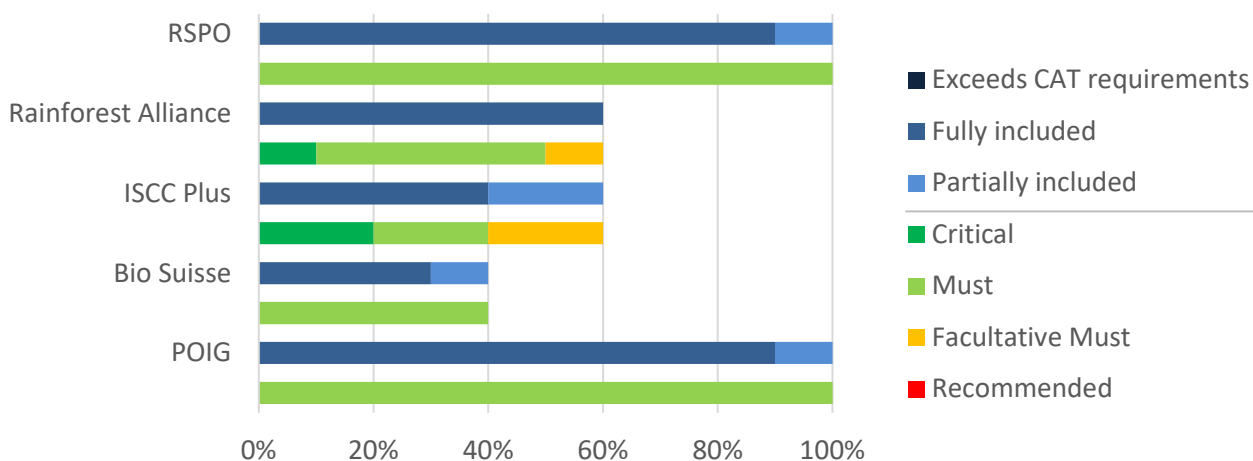
E. BIODIVERSITY



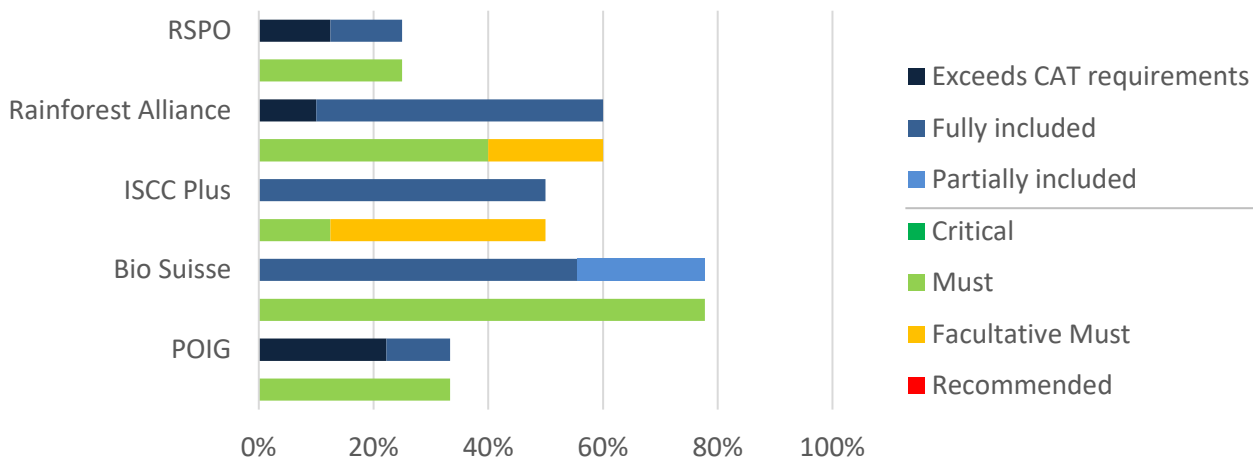
F. POLLUTION, WASTE AND GREENHOUSE GAS EMISSIONS



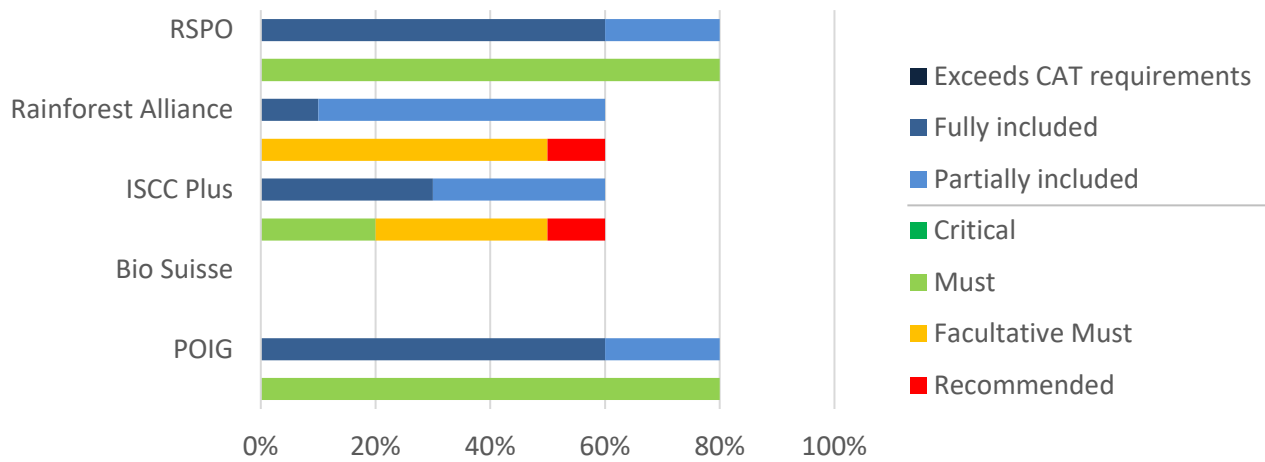
G. PLANNING AND TRANSPARENCY



H. Agriculture: Other Good Practice



I. OTHER GOOD PRACTICES FOR PALM OIL MILLS



7 Overall Results and Discussion

Chapters 5 and 6 present results by standard and by section. To compare the total performance of the benchmarked certification schemes, we looked at the percentage of criteria in each standard that exceeded Extended CAT requirements, met them fully or met them partially: POIG and RSPO achieve the highest scores with 93% and 91%, respectively. ISCC PLUS and Rainforest Alliance SAS follow, with 83% and 78%. Bio Suisse Organic comes last with 58%. Table 5 shows the results.

This ranking is consistent with the ranking found in the four quantitative studies we reviewed in Chapter 3. There, too, RSPO ranking before ISCC and Rainforest Alliance. Bio Suisse had not been included in any of the reviewed studies and POIG only in one of them, where it achieved a higher score than RSPO. The consistency of this ranking across studies is remarkable because each all studies used different approaches, evaluation criteria and in some cases only focus on a particular area, such as biodiversity (e.g. [16]) or social aspects (e.g. [14]). We'd also like to refer the reader back to the synopsis of results from the four external studies as presented in Table 4, which includes additional standards to the ones benchmarked in our study, namely RSB, MSPO and ISPO.

It is worth noting that the CAT favours the governance structure of roundtable processes such as the RSPO, and that the WWF is both the initiator of the RSPO and the author of the CAT. Using the CAT as the benchmarking tool may therefore have introduced a methodological bias. However, none of the other studies reviewed here used the CAT, though produced very similar results.

RSPO's position at the top may come as a surprise because RSPO is the subject of sustained criticism of some NGOs [13] that argue RSPO was not effective at stopping human rights violations and deforestation. While few will contest that human rights violations and deforestation still occur (see e.g. [5]), RSPO should, if our findings are correct, afford the greatest level of protection for people and the environment among the five compared standards.

That said, it is now recognised that certification alone will not suffice to bring an end to deforestation [24]. Other measures will be required in addition to certification, such a national protection plans for natural forests or caps on forest conversion, as recently pledged by Malaysia; and measures in the area of economic cooperation and development.

Table 5: Standards coverage of Extended CAT criteria by category (i.e. 'exceeds CAT', 'fully included' and 'partially included').

Standard	Percentage coverage			Rank		
	<i>Exceeds + Fully</i>	<i>Partial</i>	<i>Total</i>	<i>Exceeds + Fully</i>	<i>Partial</i>	<i>Total</i>
RSPO	83%	14%	97%	2	5	2
Rainforest Alliance SAS	64%	19%	83%	4	3	4
ISCC Plus	68%	20%	89%	3	1	3
Bio Suisse	42%	19%	62%	5	2	5
POIG	84%	15%	99%	1	4	1

8 Conclusions and Recommendations

8.1 Conclusions

We evaluated five sustainability certification schemes for palm oil, using a modified version of the WWF's Certification Assessment Tool (CAT):

1. Roundtable for Sustainable Palm Oil (RSPO), P&C 2018
2. Rainforest Alliance Sustainable Agriculture Standard (SAS), 2017
3. ISCC PLUS, Sustainability Requirements version 3.0
4. Bio Suisse, Guideline January 2020
5. Palm Oil Innovation Groups (POIG), Verification Indicators 2016

Out of the five standards, RSPO and POIG had the greatest overall coverage of assessment criteria. ISCC PLUS and Rainforest Alliance SAS ranked on middle places while Bio Suisse Organic covered the lowest number of assessment criteria.

Though not included in this report, it is worth noting that the Indonesian government standards ISPO and its Malaysian counterpart MSPO are now at par with RSPO in terms of certified area, with around 4 Mn ha [25, 9]. Certified area under ISPO and MSPO can be expected to grow further, driven by the governments' aims to include their entire palm oil industries in the schemes, which will heighten their share in the global market.

With 1.6 Mn ha of certified palm oil, ISCC is also significant in terms of certified palm area [26]. POIG, Rainforest Alliance, Bio Suisse are niche standards in terms of certified area, with the latter two likely to remain niche because they service limited premium markets. Whether POIG will move into the mainstream remains to be seen. It could also play a role as a pacesetter for RSPO next generation improvements.

For SECO and the Swiss palm oil importers and processors, RSPO seems to offer a comprehensive and widely available certification scheme for sustainable palm oil. ISCC PLUS seems an alternative to RSPO by certified area, though it is less comprehensive. POIG, Rainforest Alliance or Bio Suisse certifications could be added to RSPO (double certification) for users that wish to differentiate themselves further in the market.

8.2 Recommendations

Recommendations for SECO are to

1. Liaise with industry to identify minimum requirements from a market perspective and how they might differ from the requirements of the CEPA and the CAT/Extended CAT;
2. Consider additional measures to certification within the scope of SECO's remit of economic cooperation and development, to address some of the palm oil industry's most pressing sustainability challenges, such as deforestation and human rights violations. Such measures could include (a) technical assistance for smallholder producers to meet the requirements of certification schemes, especially of the RSPO (possibly in a multi-lateral effort together with other donors); (b) urging the Indonesian government to implement a palm oil area cap, like announced by the Malaysian government; and (c) assisting the Indonesian government in the development and implementation of an impact measurement system for ISPO and other palm oil certification standards;

-
3. Engage with the Indonesian governments to revive the review of ISPO, (a) urging for a next version that is in line with NGO recommendations; (b) supporting the Indonesian government in evaluating the national legislation, to which ISPO refers, for its suitability to ensure sustainability of palm oil production; and (c) asking to make the new standard and the underlying legislation available in English to ensure international transparency;
 4. Engage with standard owners (a) to verify the benchmarking results and (b) to start conversations about improvement potentials from the Swiss perspective.

Recommendations for the Swiss Palm Oil Network are to

5. Jointly define their markets requirements, core values (*Kernwerte*) and approaches to palm oil sustainability, e.g. which standards are preferred? what are consumers' perceptions of the various standards? what are key opinion formers' and NGOs' perceptions? can a joint set of minimum requirements be defined?
6. Analyse the effect of multiple certification and how different certification scheme might complement each other, e.g. how do Bio Suisse or Rainforest Alliance certifications add value to an existing RSPO certification, both in terms of assurance and of consumer perception?
7. Consider a joint commitment to RSPO *Identity Preserved (IP)* or *Segregated* chains of custody for RSPO certified palm oil, as these afford greater protection against mixing with potentially unsustainable palm oil.

9 References and Sources

- [1] Oilworld, “Global Supply, Demand and Price Outlook”, in *Presentation on Oils & Fats at Globoil on 27 Sept 2019*, 2019.
- [2] Swissimpex 2019, *Schweizerische Zollstatistik, pers. comm Martin Gutjahr, SECO*.
- [3] Bundesamt für Landwirtschaft, “Ölsaaten”, 2019. [Online]. Available: <https://www.agrarbericht.ch/de/markt/pflanzliche-produkte/oelsaaten>.
- [4] FAO, “FAO Stat” [Online]. Available: <http://www.fao.org/faostat>.
- [5] S. Wasmann and L. Frei, “Palm Oil Report 2019 – Exploited and Illegalised: The Lives of Palm Oil Migrant Workers in Sabah”, Solidar Suisse, Zurich, 2019.
- [6] RSPO, “Impact 2018”, 2019. [Online]. Available: <https://rspo.org/impact>.
- [7] P. den Hartog, *Rainforest Alliance, pers. comm*, 2019.
- [8] EFECA, “Comparison of the ISPO, MSPO”, EFECA, <http://www.efeca.com/efeca-published-comparison-palm-oil-standards/>, Bournemouth, undated.
- [9] A. Ananthalakshmi, “Malaysia says palm oil industry challenged to meet green standards by 2020”, 18 11 2019. [Online]. Available: <https://www.reuters.com/article/us-malaysia-palmoil/malaysia-says-palm-oil-industry-challenged-to-meet-green-standards-by-2020-idUSKBN1XS19N>.
- [10] S. Hutabarat, “ISPO certification and Indonesian oil palm”, *Agro Ekonomi*, vol. 28, no. 2, pp. 170-188, Dec 2017.
- [11] ESPO, “Making sustainable palm oil the norm in Europe – Progress Report on the import and use of sustainable palm oil in Europe”, European Sustainable Palm Oil (ESPO) Secretariat, Zoetermeer, 2017.
- [12] Environmental Investigation Agency, “Backtracking on reform: how Indonesia’s Government is weakening its palm oil standards”, 8 February 2019. [Online]. Available: <https://eia-international.org/news/backtracking-reform-indonesias-government-weakening-palm-oil-standards/>.
- [13] R. Kusumaningtyas, “External Concerns on the RSPO and ISPO Certification Schemes”, Profundo, Amsterdam, 2018.
- [14] A. McInnes, “A comparison of leading palm oil certification standards”, Forest Peoples Programme, Moreton-in-Marsh, 2017.
- [15] T. Schleicher, I. Hilbert, A. Manhart, K. Hennenberg, Ernah, S. Vidya and I. Fakhriya, *Production of Palm Oil in Indonesia. Country-focused commodity analysis in the context of the Bio-Macht project. Final Report*, Freiburg: Öko-Institut, 2019.
- [16] B. Tinhout and H. van den Hombergh, “Setting the biodiversity bar for palm oil certification”, IUCN National Committee of the Netherlands, Amsterdam, 2019.

-
- [17] B. Yaap and G. Paoli, "A Comparison of Leading Palm Oil Certification Standards Applied in Indonesia", Daemeter, 2014.
- [18] SWI Swissinfo, "Organic food sales top CHF3 billion", 3 4 2019. [Online]. Available: https://www.swissinfo.ch/eng/bio-suisse_organic-food-sales-top-chf3-billion/44871048.
- [19] T. Bernet and P. van den Berge, "Organic and Fair Palm Oil Production – Assessment Project", FiBL, Frick, 2019.
- [20] ISEAL, *Assessing the Impacts of Social and Environmental Standards Systems. Version 2.0 – December 2014*, London: ISEAL Alliance, 2014.
- [21] Ethical Tradeing Initiative, *ETI Base Code*, undated.
- [22] S. Kausch, *PlusWert, pers. comm.*, 2019.
- [23] ISEAL, *Setting Social and Environmental Standards. Version 6.0 – December 2014*, London: ISEAL Alliance, 2014.
- [24] K. M. Carlson, R. Heilmayr, H. K. Gibbs, P. Noojipady, D. N. Burns, D. C. Mortin, N. F. Walker, G. D. Paoli and C. Kremen, "Oil palm certification, forests, and fire", *PNAS*, vol. 115, no. 1, pp. 121-126, 2018.
- [25] Reuters, *Indonesia certifies a record amount of palm plantations as sustainable*, 2019 .
- [26] ISCC, *ISCC Impact Report 2018*, Cologne: ISCC e.V., 2018.
- [27] ISPO/RSPO/UNDP, "Joint Study on the Similarities and Differences of the ISPO and RSPO Certification Systems", Ministry of Agriculture of the Republic of Indonesia, Jakarta, 2015.

10 Appendix I: List of Extended CAT criteria

Original CAT criteria appear in black font, criteria added for this project in blue font.

Part I – Scheme governance	
A. MISSION AND GOVERNANCE	
1	The scheme is set up to continuously improve the social, environmental and economic benefits of producing a specific commodity or category of commodities. The long term social, environmental and economic impacts are defined and documented"
2	Scheme core normative documents, e.g. statutes, bylaws and principles and criteria (audit manual or comparable), are publicly available on a scheme website.
3	The scheme is a (full or associate) member of ISEAL.
4	The scheme has a resourced Secretariat with clearly defined staff and functions related to, at a minimum; finance, standard development, communication, membership/participant handling, quality assurance and complaints and the contact details are publicly available online.
5	The scheme is open to membership (and/or similar level of participation in governance) for all stakeholders who share the scheme's values and objectives.
6	Names and affiliation of members are publicly available on a scheme website.
7	Members and/or Participants are required to commit to scheme values and objectives through signing a Code of Conduct (or similar).
8	Member's Code of conduct requires legal compliance, adherence to ILO core conventions and Free Prior and Informed Consent and maintenance of High Conservation Values (HCVs) as defined by the HCV Resource Network.
9	Members from the private sector are required to develop and adhere to a time-bound plan towards certification and/or procurement of certified products, and report annually on progress.
10	Procedures are in place to suspend or terminate membership for gross violations of the Code of Conduct, i.e. against legal compliance, adherence to ILO core conventions and Free Prior and Informed Consent (FPIC) and maintenance of High Conservation Values (HCVs) as defined by the HCV Resource Network.
11	The scheme's highest decision-making forum is, or is formally mandated by, the membership/scheme participants.
12	Highest decision-making forum procedures ensure that no single interest group (economic, social or environmental) can dominate governance decision-making.
13	Highest decision-making forum procedures ensure that non-economic sector constituencies collectively have (at least) the same governance decision-making power as economic sector constituencies.
14	Highest decision-making forum procedures ensure that constituencies representing economic, social and environmental interests have equal governance decision-making power.
15	Highest governance decision-making forum requires balanced participation of economic, social and environmental representatives.
16	Changes to core normative document require voting by the scheme members/participants.
17	Executive (secretariat) functions are overseen by a Board of Directors or Trustees composed of individuals mandated by voting among scheme members / participants.
18	Minutes of Board or Trustee meetings are publicly available.
19	There are procedures in place and clear time bound requirements for handling disputes and complaints by members / participants related to governance and executive functions.
20	There are defined procedures for appealing the handling of disputes and complaints related to governance and executive functions open to all members / participants.
B. SETTING STANDARDS	
21	Nationally applicable certification standard(s) constitute, or are adapted from, a set of internationally, regionally or nationally applicable principles and criteria (or equivalent).
22	The Principles and Criteria (or equivalent) address as a minimum: social and environmental impacts, workers' conditions and rights, community relations, environmental services, conservation of biodiversity and good management practices.
23	Applicable certification standards are (or were) developed in accordance with formally defined scheme procedures.
24	Representatives of major economic, social and environmental interests are actively invited to participate in the development of nationally applicable certification standards.
25	Applicable certification standards are developed with a meaningful participation of economic, social and environmental representatives.
26	Applicable certification standards are developed by consensus or in processes where no single interest group can dominate decision-making.
27	Applicable certification standards taken in account the ISEAL Impact Code for the development and revisions.
28	Draft certification standards are developed in processes where input is solicited from scientific and technical experts.
29	Draft certification standards are subject to multiple rounds of public consultation.

Part I – Scheme governance	
30	Input received in consultations on draft certification standards is documented and there is report back on how issues raised are addressed.
31	Draft certification standards are formally approved by the scheme.
32	Applicable certification standards are publicly available on a website.
33	Applicable certification standards have auditable indicator(s) for each criterion.
34	Most indicators of applicable certification standards require an absolute level of performance (as opposed to merely relative improvement or the existence of a process).
35	Applicable certification standards clearly distinguish mandatory requirements from recommendations and guidance.
36	Applicable certification standards have separate requirements for small and/or medium sized management units and/or are formulated so as to take account of the scale and intensity of operations.
37	Applicable certification standards are revised at least every five years.
38	Applicable certification standards are developed and revised in full compliance with the ISEAL Code of Good Practice.
39	The scheme either applies the same certification standard in all areas of operation or has procedures for developing and harmonizing national/regional interpretations.
40	The scheme either applies the same certification standard in all areas of operation or has procedures for certification based on scheme principles and criteria (or equivalent) in countries that do not (yet) have national interpretations.
C. CERTIFICATION	
41	Producers are certified by independent third-party certification bodies operating in compliance with ISO requirements.
42	Producers are required to certify all (eligible) units under their control in accordance with a time-bound plan.
43	Searchable databases with names, sizes and locations of all certified units, including expiry dates, are publicly available on a scheme website.
44	Certification bodies post information about upcoming scheduled certification and surveillance audits on a common national and/or international scheme-operated website or mailing list.
45	Certification bodies are required to conduct annual or more frequent surveillance audits of certificate holders.
46	Certification bodies are required to proactively consult with affected stakeholders during both certification and surveillance audits.
47	Certification bodies are required take account of stakeholders' comments during certification and surveillance audits.
48	Certification bodies are required conduct risk-based auditing and surveillance.
49	Certification bodies are required to adjust the intensity of auditing and surveillance to match observations in the field.
50	Certification bodies are required to conduct unannounced audits in high risk contexts.
51	Certificate holders are required to rectify non-compliances identified during certification and surveillance audits within a set timeframe that does not exceed one year.
52	Adequate sanctions are applied in situations where less severe (minor) non-compliances are not rectified in time.
53	Severe (major) non-compliances that are not rectified in time lead to suspension or termination of the certificate.
54	Summary reports of certification and surveillance audits (including dates, locations and scope of auditing, team composition, main findings and corrective action requests) are publicly available in a UN language on a website.
55	Summary reports of certification and surveillance audits (including dates, locations and scope of auditing, team composition, main findings and corrective action requests) are publicly available in a common local language on a website.
56	Summary reports of certification and surveillance audits are made publicly available within ninety days after completion of the audit.
57	Certificates are valid for no more than five years after which a new full certification audit is required.
58	Certification bodies implement formal and transparent, publicly available procedures for handling disputes and complaints related to certification and surveillance.
59	Certification and surveillance complaints procedures have clear deadlines.
60	Certification and surveillance complaints procedures include appeal mechanisms open to use by any affected party.
D. ACCREDITATION	
61	Certification bodies are accredited by an ISEAL member accreditation organization.
62	The accreditation organization(s) list(s) upcoming regular assessments and surveillance audits of certification bodies publicly on a website.
63	The accreditation organization provides mechanisms for stakeholder input during assessment and surveillance audits of certification bodies.
64	The accreditation organization verifies that certification bodies engage effectively with stakeholders during auditing and surveillance.
65	The accreditation organization conducts risk-based auditing and surveillance of accredited certification bodies.
66	Less severe (minor) non-compliances that are not rectified within the time set are escalated to severe (major) non-compliances.
67	Severe (major) non-compliances that are not rectified within the time set lead to suspension or termination of the accreditation.
68	Summaries of the accreditation assessments of certification bodies are publicly available

Part I – Scheme governance	
69	Accreditation organizations implement formal and transparent, publicly available procedures for handling disputes and complaints related to approval and accreditation of certification bodies.
70	Certification and accreditation complaints procedures include appeal mechanisms open to any involved party.
E. CHAIN OF CUSTODY	
71	There are scheme procedures for monitoring custody and trade of materials from certified producers (regardless of Chain of Custody model).
72	There are scheme procedures for assessing risks related to the origin of materials in labelled products.
73	Certificate holders are required to manage critical control points along the supply chain with a scope and rigor that corresponds to the risks.
74	Certification bodies survey certificate holders' operation of chain of custody procedures.
75	Certification bodies survey certificate holders' use of claims, trademarks and labels, on and off products.
76	The scheme either only allows for claims on products consisting of fully segregated materials, or requires that claims associated with products containing a physical mix of certified and non-certified materials are clearly distinguished, e.g. by use of terms such as 'mixed', 'proportion' or 'contains...'. The scheme either only allows for claims on products consisting of fully segregated materials or requires that products of mixed origins do not contain any (focus commodity) materials defined as controversial, 'unacceptable' or similar.
77	The scheme requires that products labelled or otherwise claimed as certified do not contain any (focus commodity) materials that are illegally harvested or traded.
78	The scheme requires that products labelled or otherwise claimed as certified do not contain any (focus commodity) materials from areas where traditional or civil rights are violated.
79	The scheme requires that products labelled or otherwise claimed as certified do not contain any (focus commodity) materials from areas where HCVs (1-6) are threatened.
80	
F. MONITORING AND EVALUATION	
81	A functioning and effective monitoring and evaluation (M&E) system is in place that is compliant with the ISEAL Alliance's Impacts Code (v2).
82	Information about the contact point for submitting any comments, questions or complaints about the monitoring and evaluation (M&E) system is publicly available.
83	A description of the current scope and boundaries of the M&E system is publicly available, and, where the M&E system covers a limited scope, the plans for future expansion.
84	Procedures and opportunities for stakeholder engagement in the design and revisions of the M&E system are publicly available.
85	Results of previous stakeholder input in the design and revisions of the M&E system are publicly available.
86	An explanation is publicly available of the scheme's strategies, intended outcomes and impacts.
87	An explanation is publicly available of the scheme's most significant unintended effects.
88	The list of indicators used in the M&E system is publicly available.
89	A list of completed, ongoing and planned scheme impact evaluations is publicly available. Results of outcome and impact evaluations are publicly available.
90	Procedures are in place to protect confidential and proprietary data.

Part II – Good practices	
A. LEGALITY, TENURE AND USE RIGHTS	
1	Producers are required to be legally defined entities.
2	Producers are required to have legal land tenure or title and valid resource use rights to use the management unit.
3	Producers are required to comply with all applicable local, national and international laws and regulations.
4	Producers are required to identify legal and customary rights of tenure, access and use of other parties that apply on the management unit.
5	Producers are required to uphold legal and customary rights of tenure, access and use of other parties, unless these rights are delegated through documented Free, Prior and Informed Consent.
6	Producers are required to respect the rights, customs and culture of indigenous peoples as defined in the UN Declaration on the Rights of Indigenous Peoples (2007) and ILO Convention 169 (1989).
7	Producers are required to engage with affected stakeholders and document measures taken to resolve disputes related to land tenure, access and use.
8	Producers are required to engage with affected stakeholders and document measures taken to resolve disputes related to water.
9	Producers are required to take measures against unauthorised or illegal activities and settlement on the management unit.
10	Producers are required to commit in writing not to offer or receive bribes or engage in any other form of corruption.
B. COMMUNITY RELATIONS	
11	Producers are required to engage in dialogue with neighbouring communities and individuals.

Part II – Good practices	
12	Producers are required to identify negative impacts from operations on communities and individuals.
13	Producers are required to take measures to minimise and mitigate negative impacts from operations on communities and individuals.
14	Producers are required to address grievances and provide fair compensation for negative impacts of operations on local communities and individuals.
15	Producers are required to assess potential impacts on communities and individuals, including impacts on food security and water availability, prior to any significant intensification or expansion of cultivation or infrastructure.
16	Producers are required to identify and respect sites of cultural and religious significance in the management unit.
17	Producers are required to assess and maintain High Conservation Values (HCVs) category 5 (basic necessities for local communities) in the management unit.
18	Producers are required to support economic development by providing opportunities for local employment and provision of services.
19	Producers are required to actively engage in welfare programs, where relevant to the social context.
20	Producers are required to regularly monitor their impacts on the local economy and to adapt management as necessary for improvement.
C. WORKERS' RIGHTS	
21	Producers are required to respect the core ILO rights of workers as defined in the Declaration on Fundamental Principles and Rights at Work (1998).
22	Producers are required to ensure that children under the age of 15 (or higher if stipulated in national law) do not carry out productive work in the management unit.
23	Producers are not allowed to use forced or otherwise involuntary labour.
24	Producers are required to ensure that there is no discrimination at work and that workers are not subject to any form of corporal punishment, abuse, harassment or intimidation.
25	Producers are required to identify potential health and safety risks at work and take measures to avoid them.
26	Producers are required to ensure that workers are adequately equipped, instructed and trained for their tasks, including safe use and handling of chemicals.
27	Producers are required to respect workers' freedom of association and right to collective bargaining.
28	Producers are required to ensure that wages, working hours and leave comply with, or exceed, applicable legislation and sector minimum standards.
29	Producers are required to address grievances related to working conditions and workers' rights and to provide compensation for occupational injuries.
30	Producers are required to ensure access to safe drinking water, adequate and equitable sanitation and hygiene (WASH)
C-a. WORKERS' RIGHTS, other criteria based on ETI Base Code	
i	Producers are prohibited to require workers to lodge "deposits" or their identity papers and to ensure workers are free to leave employment after reasonable notice.
ii	Large-scale producers shall assign responsibility for health and safety to a senior management representative.
iii	Accommodation, where provided, shall be clean, safe, and meet the basic needs of the workers.
iv	Producers are required to pay living wages: Wages should always be enough to meet basic needs and to provide some discretionary income.
v	Producers provide all workers with written and understandable Information about their employment conditions in respect to wages before they enter employment and about the particulars of their wages for the pay period concerned each time that they are paid.
vi	Producers are required to ensure that working hours, excluding overtime, are defined by contract, and shall not exceed 48 hours per week* or 60 hours in any 7 day period, except in exceptional circumstances and where of the following are met: <ul style="list-style-type: none"> - this is allowed by national law; - this is allowed by a collective agreement freely negotiated with a workers' organisation representing a significant portion of the workforce; - appropriate safeguards are taken to protect the workers' health and safety; and - the employer can demonstrate that exceptional circumstances apply such as unexpected production peaks, accidents or emergencies. Workers shall be provided with at least one day off in every 7 day period or, where allowed by national law, 2 days off in every 14 day period.
vii	Producers are required to ensure that all overtime is voluntary, is used responsibly and is not used to replace regular employment. Overtime shall always be compensated at a premium rate, which is recommended to be not less than 125% of the regular rate of pay.

Part II – Good practices	
viii	Producers are required to provide regular employment: To every extent possible work performed must be on the basis of recognised employment relationship established through national law and practice. Obligations to employees under labour or social security laws and regulations arising from the regular employment relationship shall not be avoided through the use of labour-only contracting, sub- contracting, or home-working arrangements, or through apprenticeship schemes where there is no real intent to impart skills or provide regular employment, nor shall any such obligations be avoided through the excessive use of fixed-term contracts of employment.
ix	Producers are required to develop or participate in and contribute to policies and programmes which provide for the transition of any child found to be performing child labour to enable her or him to attend and remain in quality education until no longer a child ("child" and "child labour" as per ILO definitions). These policies and procedures shall conform to the provisions of the relevant ILO standards.
x	Producers are prohibited to employ children and young persons under 18 at night or in hazardous conditions.
D. WATER AND SOIL	
31	Producers are required to identify water resources potentially affected by operations, in as well as outside the management unit.
32	Large scale Producers are required to assess the catchment context in order to identify key water risks or shared challenges.
33	Producers are required to take measures to minimise and mitigate negative impacts from direct operations on water quality.
34	Producers are not allowed to create or aggravate situations of water scarcity.
35	Producers are required to maintain and to restore important water related areas including wetlands.
36	Producers are required to avoid or minimise run-off and siltation of watercourses.
37	Producers are required to take measures to minimise negative impacts from operations on soil resources.
38	Producers are required to avoid or minimise soil erosion.
39	Producers are required to maintain or improve soil quality.
40	Producers are required to regularly monitor their impacts on soil and water and to adapt management as necessary for improvement.
E. BIODIVERSITY	
41	Producers are required to identify and maintain biodiversity values, potentially affected by operations, in as well as outside the management unit.
42	Producers are required to take measures to minimise and mitigate negative impacts from operations on biodiversity values.
43	Producers are required to assess potential impacts on biodiversity values prior to significant intensification or expansion of cultivation or infrastructure.
44	Producers are required to protect rare and threatened species and their habitats in the management unit.
45	Producers are required to assess and maintain HCVs category 1 (concentrations of rare and threatened species), 2 (large landscapes in a relatively natural state), 3 (rare and threatened ecosystems) in the management unit, and 4 (Basic ecosystem services in critical situations, including protection of water catchments and control of erosion of vulnerable soils and slopes.)
46	Producers are not allowed to convert native forest and/or areas of high above-ground carbon stocks to expand cultivation or plantations.
47	Producers are required to maintain or restore native vegetation along streams and watercourses.
48	Producers are required to take measures against any illegal or inappropriate hunting, fishing or collecting in the management unit.
49	Producers are not allowed to introduce or use invasive alien species in the management unit.
50	Producers are required to regularly monitor their impacts on biodiversity and to adapt management as necessary for improvement.
F. POLLUTION, WASTE AND GREENHOUSE GAS EMISSIONS	
51	Producers are required to implement integrated pest management practices that minimise the use of pesticides.
52	Producers are not allowed to use Hazardous chemicals (as defined by WHO 1A and B and the Stockholm and Rotterdam conventions).
53	Producers are required to document all application, handling, storage and disposal of agrochemicals and to ensure that procedures comply with good practice and/or manufacturers' recommendations.
54	Producers are required to take measures to avoid or minimise negative impacts of agrochemical use on human health and the environment.
55	Producers are required to respect a 500 m minimum application distance of pesticides, growth promotors and liquid fertilizers to natural ecosystems and areas of human activities, if applied by helicopter or airplanes.
56	Producers are required to take measures to increase resilience and reduce negative impacts from severe climate events.
57	Producers are required to estimate sequestration and emissions of greenhouse gases from the management unit.
58	Producers are required to take measures to reduce any net emissions of greenhouse gases from the management unit.
59	Producers are required to reduce waste through reuse, recycling or other environmentally appropriate utilisation.

Part II – Good practices	
60	Producers are not allowed to expand cultivation or plantations on peat soils and/or areas of high below-ground carbon stocks.
G. PLANNING AND TRANSPARENCY	
61	Producers are required to continuously improve key practices and operations.
62	Producers are required to have management plans appropriate to the scale and intensity of the operation that demonstrate commitment to long-term social, environmental and economic viability.
63	Producers are required to ensure that management plans account for future water resource conditions (i.e., climate change, demographic shifts, projected use increases, etc.)
64	Producers are required to make summaries of their management plans publicly available on their website (large producers) or by a request (small/middle producers).
65	Producers are required to use independent expertise for assessing social and environmental impacts prior to significant intensification or expansion of cultivation or infrastructure.
66	Producers are required to make summaries of their social and environmental impact assessments publicly available on their website (large producers) or by a request (small / middle producers).
67	Producers are required to identify HCVs (all six categories) prior to significant expansion of cultivation or plantations.
68	Producers are required to participate in catchment governance mechanisms such as integrated river basin management plans.
69	Producers are required to make summaries of their HCV assessments publicly available on their website (large producers) or through a request (small / middle producers).
70	Producers are not allowed to expand cultivation or establish plantations at the expense of one or more HCVs.
H. Agriculture: Other Good Practice	
71	Producers are required to cultivate a mix of genotypes of each main crop.
72	The standard does not allow the use of GMO crop species.
73	The standard has a separated supply-chain for non-GMO
74	Producers are not allowed to use hazardous chemicals class WHO 2.
75	Producers are not allowed to use hazardous chemicals according to the PAN International list of Highly Hazardous Pesticides.
76	Producers adopt agro-ecologic practices, including the non-use of pesticides, biological control of pests, etc.
77	Large scale producers are not allowed to expand cultivation in ways that impact negatively on local food security.
78	Producers are required to implement applicable and effective actions to ensure efficient irrigation.
79	Producers of annual crops are required to practise crop rotation. Producers of perennial crops are required to practise intercropping or promote mixtures of crops and native species.
80	Producers are required to adapt fertilisation to soil conditions and crop needs.
I. OTHER GOOD PRACTICES FOR PALM OIL MILLS	
81	Palm oil mills are required to implement methane reduction from POME through methane capture or removal of organic matter from the effluent (skimming or belt filter).
82	Palm oil mills are required to distributed treated POME back to palm production land.
83	Palm oil mills are required to compost EFB with other residues (e.g. POME solids and fibre).
84	Palm oil mills are required to distribute EFBs or EFB compost back to fields where EFB were harvested, including outgrower land.
85	Palm oil mills are required Implement measures to improve energy efficiency and reduce overall energy consumption.
86	Palm oil mills are required to substitute the use of fossil energy with renewable sources of energy as much as possible, e.g. from EFB and other biomass, methane from POME.
87	Palm oil mills are required to actively and publicly promote sustainable palm oil within their sphere of influence.
88	Palm oil mills are required to collaborate with other actors in the sector and their supply chain to jointly achieve a more sustainable palm oil industry.
89	Palm oil mills are required to model the typical costs and revenues of their smallholder suppliers, to ensure that they operate an economically viable business and advise them on optimising their income from oil palm cultivation.
90	Palm oil mills are required to ensure that current best agricultural and labour practices are disseminated to their FFB suppliers and outgrowers, e.g. via training programmes and extension services.

Legal Disclaimer

While we have made every attempt to ensure that the information contained in this document has been obtained from reliable sources, Christof Walter Associates is not responsible for any errors or omissions, or for the results obtained from the use of this information. All information in this document is provided "as is", with no guarantee of completeness, accuracy, timeliness or of the results obtained from the use of this information, and without warranty of any kind, express or implied, including, but not limited to warranties of performance, merchantability and fitness for a particular purpose. Nothing herein shall to any extent substitute for the independent investigations and the sound technical and business judgment of the reader. In no event will Christof Walter Associates, or its partners, employees or agents, be liable to you or anyone else for any decision made or action taken in reliance on the information in this file or for any consequential, special or similar damages, even if advised of the possibility of such damages.

Certain references and links within this file point to third party sources, such as websites, publications and data services, over whom Christof Walter Associates has no control. Christof Walter Associates makes no representations as to the accuracy or any other aspect of information contained in third party sources.

Christof Walter Associates is (1) registered in Germany, Menkestr. 7, 49076 Osnabrück, Germany, VAT Number DE 29 666 00 90; (2) the trading name of Christof Walter Consulting Ltd, registered in England and Wales, Company Number: 08037886. Office Address: The Stable Yard, Vicarage Road, Stony Stratford, MK11 1BN, UK. VAT Number: GB 136 2819 11.