

SEARCHING FOR SUSTAINABILITY

Comparative Analysis of Certification Schemes for Biomass used for the Production of Biofuels

Final Project Report

Topic: Comparative Analysis of Certification Schemes for Biomass used for the Production of Biofuels

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The results presented here should not be interpreted as an endorsement or support of any of the standards or certification schemes. Additional factors and further analyses of on-site implementation have to be conducted before a statement can be issued with regard to the suitability or support of a standard. Moreover, it is important to note that both the standards and the CAT tool are being further developed on a continuous basis, and that the results reflect the status in June 2013. This study is based on desk research prepared by the PricewaterhouseCoopers AG (PwC) auditing and consultancy organization in cooperation with WWF-Germany. All of the standards and certification schemes evaluated in this report were consulted.

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Abbreviation

ASI Accreditation Services International

BLE Bundesanstalt für Landwirtschaft und Ernährung

(German Federal Office for Agriculture and Food)

CAT Certification Assessment Tool

CBs Certification Bodies
EC EU Commission

EIA Environmental Impact Assessment
EMS Environmental Management System

EU European Union

EU RED EU Renewable Energy Directive
GAP Good Agricultural Practices

GHG Greenhouse Gas

GMO Genetically Modified Organisms HCV High Conservation Value

IAF International Accreditation Forum

ICS Internal Control System

ILO International Labour Organization
IPM Integrated Pest Management

ISEAL ISEAL Alliance – the global membership association for sustainability standards

ISO International Organization for Standardization

MRA Mutual Recognition Agreement

UKAS United Kingdom Accreditation Services

WHO World Health Organization

Definitions

Hazardous Agrochemicals: The term "hazardous agrochemicals" includes agrochemicals in the WHO Classes 1A, 1B and 2 and those listed in the Stockholm and Rotterdam Conventions (IFC PS 3.15).

Scheme: Standard scheme – refers to the entire standard setting and certification system, i.e. includes the standard's documents concerned with various aspects of the scheme.¹

Standard: Document that contains rules, guidelines or characteristics for products or related production methods and processes. NOTE: It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method.²

Multi-stakeholder Scheme: All relevant and interested stakeholders have equal influence, i.e. representatives from companies, producers, civil society, governments, research institutes, and non-governmental organizations have equal representation and are equally engaged. This applies to the original development of the scheme and standard as well as to implementation and further development.³

Minimum requirements of EU RED: The mandatory minimum requirements of the EU RED are as follows:

- » Mandatory reduction of GHG emissions by 35 per cent, then by 50 per cent starting in 2017 and 60 per cent as of 2018
- » Protection of areas with high biodiversity value
- » Protection of high carbon stock areas
- » Compliance with the rules for mass balance and traceability
- » For member states: compliance with rules for Cross Compliance and Good Agriculture Practice.

Executive Summary

This study analyses and compares all standards and certification schemes for biofuels production that were approved to comply with the EU RED requirements. The study

compared all of the EU-recognized schemes for certifying the sustainability of biofuels which had been established as of June, 2013. Measuring these 13 standards and certification schemes against WWF's sustainability criteria revealed each standard's overall added sustainability value and identified areas for improvement. The results of this study are an overview and comparison of strengths and weaknesses for each standard from which the authors extracted recommendations for the scheme owners for improvement of their environmental and social performance. The study follows on with recommendations for EU RED legislation.

Aim of the study

- 1. Identify strength and weaknesses of the analyses standards.
- 2. Give recommendations to standard owners for improvments.
- 3. Provide guidance to economic operators and regulators regarding the quality of RED requirements.
- 4. Offer recommendations for the revision of EU RED and the approval process of schemes under EU RED.

Intoduction

The European Union (EU) promotes the use of biofuels as an alternative renewable energy source to replace fossil fuels and mitigate climate change. The European Parliament's 2009 Renewable Energy Directive (RED) and the Fuel Quality Directive (FQD), mention biofuels as the most effective way to achieve a low-carbon transport sector.

By 2020, 20 per cent of the energy used in the EU and 10 per cent of the energy used by each member state in the transport sector must come from renewable sources. The available arable land in the EU is insufficient to grow the raw materials and feedstock needed to produce biofuels in the medium and long term. Therefore a part of the biomass production has to be cultivated outside of the EU.

Biofuels and bioliquids used in the EU must meet EU RED sustainability criteria in order to be eligible for funding or to count them towards national targets. These criteria apply regardless of the origin of the biofuels and bioliquids. The applicable mandatory sustainability criteria are specified in Directives 2009/28/EC and 2009/30/EC.

The Directive lists the following options for implementation: National regulations of the member states, private-sector certification schemes, and bilateral agreements. The EC initially decided that the sustainability certification has to be undertaken via private-sector certification schemes. The certification scheme can be recognized and approved by the EU (for globally applicable schemes) or at member state level (for national schemes). As of June 2013, the European Commission (EC) had recognized 13 certification schemes for biofuels.⁴

Methodology

This desk study examines the written documents of 13 certification schemes for biofuels, which have been recognized by the EC. It was conducted by using the "Certification Assessment Tool" (CAT Version 2.1) developed by WWF. The CAT is a structured way to evaluate and compare voluntary standards and certification schemes. The tool asks questions and has a scoring methodology to assess the strategic, governance, structural, social, and environmental strengths and weaknesses of standards and certification schemes.

Information sources used were current standard documents as well as publicly available information provided by the EC, or accessible via standard organizations' homepages and other relevant external organizations' websites. Interviews with representatives of each standard organization were conducted to verify data. In a last step, comments received from the scheme representatives were integrated and assessments were finalised.

The CAT is a desk-based exercise that is based on criteria and processes defined in a scheme's documentation. As such the CAT assessments contained in this study do not evaluate how a given scheme's requirements are implemented in practice.

Key findings

All of the analysed standards implement the mandatory minimum requirements specified in EU RED.

Yet many of the analysed standards performed on a middle or low level against WWF criteria for a credible sustainable environmental and social standard. While the approved standards have very diverse performance with respect to environmental and social criteria, the study shows that multi-stakeholder schemes cover more comprehensively ecological and social requirements.

While most of the current biofuel production debates in Brussels focus on indirect effects, it is important to note that direct effects are not yet adequately addressed in EU RED criteria and/or require further definitions. For example, EU RED does not include mandatory requirements on maintaining and improving soil, water and air quality or consider social issues such as dealing with the affected communities, compliance with the ILO Conventions, and food security.

Based on the analysis, the study produced the following results:

- » The requirements of EU RED were implemented to a similar level by all of the recognized standards; however, this does not mean that the standards are sustainable according to WWF.
- » The current mandatory minimum sustainability requirements prescribed in EU RED cannot ensure that biofuels used in the EU, whether they are produced nationally or are imported, are sustainable according to the key sustainability criteria that WWF advocates.

- » Multi-stakeholder schemes i.e. those with the active involvement of different stakeholder groups on all levels of the scheme (standard setting, audits and management of the scheme) generally provide a higher level of environmental and social performance. This means that the multi-stakeholder schemes will most likely result in better field-level implementation, as a solid governance structure, transparency and strong audit and accreditation requirements together increase the likelihood of field-level implementation.
- » Some EU RED standards already go beyond the criteria specified by the EU and address social and deeper environmental issues, including water, soil and air.
- » The analysis shows that some important issues are poorly represented in the approved standards, including the implementation of social and environmental management systems on the corporate level, handling of invasive species, limitations on the use of hazardous chemicals, waste and water management, restoration of riparian areas and segregation of supply chains in order to offer a non-GMO option. Many standards do not adequately address transparency in public reporting, internal system governance, and audit scope and intensity.

The results of the analysis and its findings concerning implementation procedures lead to the following policy recommendations.

- » As part of the revision of EU RED, **requirements that are currently voluntary or are only reporting obligations should now be made mandatory:** social aspects, limitations on the use of hazardous chemicals, impact assessment⁵ and monitoring, mitigation of negative effects for environmental habitats, benefits for surrounding communities, analysis of the impact on food production.
- » A significant weak point with respect to implementing the legislation through voluntary standards is inadequate **monitoring of the effectiveness of the certification and implementation on site.** There is very little documentation on the effectiveness of the standards. From WWF's viewpoint, the standards employed by the EU for implementing the legislation should provide evidence with regard to the implementation of binding sustainability criteria. Some of the multi-stakeholder standards have various mechanisms in place that should ensure sound implementation, but most of the standards developed specifically for EU RED lack such checks and procedures.
- » While all standards have some form of grievance procedure in place for dealing with complaints regarding certification results, the internationally applicable multi-stakeholder schemes with comprehensive criteria have much stronger grievances processes in place, including for affected communities and other stakeholders.
- » There is a gap between requirements and procedures used for sampling and farm inspections, between field audits and desk audits, between regulations for group certification and for the prevalent practices in non-EU countries. Desk audits on the farm level are conducted without consideration of the risk classification, and group certification is granted to completely independent operated farms without strong internal control system (ICS). This jeopardises the intention of EU RED to support environmental and social sustainability through voluntary schemes and should be addressed accordingly during the review of the effectiveness of the standard.

In summary, based on the results of this study, WWF strongly advocates that the EC should include the following points during the **review and revision of EU RED:**

- » The EC should require a multi-stakeholder approach for all approved standards.
- » Requirements that are currently defined as voluntary or are only included as reporting obligations should be made mandatory.
- » Standards which are recognized within the scope EU RED must be required to use an internationally recognized accreditation body for approving certification bodies⁶
- » Farm audits should generally only comprise on-site audits; remote audits should be not accepted .
- » Group certification should be only permitted in a very strictly defined framework (smallholders, cooperatives) together with a required robust internal control system (ICS).

The policy recommendations that go beyond the results of the study address the EC's recognition and approval process for voluntary standards.

- » The recognition and approval process should be more transparent, allow for stakeholder participation and include a grievance mechanism⁷.
- » A monitoring system should be implemented in order to better monitor the effectiveness of the certifications, regardless of the scheme.
- » The EC should review, on a regular basis, whether the implementation practice of the standard complies with the legislation. The results of the review should be incorporated into the approval process.

Introduction 1.1 Objective of this study

In recent years, the bioenergy market has become increasingly important, and there has been a rise in the international trading of biomass feedstock and biofuels. At the same time. there is a growing awareness of the importance of producing biomass feedstock and biofuels sustainably. Biofuels have been strongly debated due to their sometimes doubtful potential for reducing GHG emissions and the increasing threat to biologically valuable areas. On the social side, this debate also includes the potential, and possibly severe, negative effects on labour conditions, land rights and food prices. This is especially the case for countries with inconsistent law enforcement and weak governance.

To ensure that bioenergy is developed in an environmentally, socially and economically sustainable manner, a range of policy instruments can be used to incentivize good practices along the entire supply chain.

WWF supports the use of voluntary schemes as a compliance mechanism under Directives 2009/28/EC and 2009/30/EC (EU RED).8

Voluntary sustainability standards are market-based tools, designed to address the most pressing social and environmental challenges of our time. The premise is that sustainability standards which are credible and effective can bring about globally significant social, environmental and economic impacts. Their continued growth in size and scope is an indication of the influential role that such schemes can play in achieving positive change on a global scale. However, it also highlights the imperative need for a broadly shared understanding of good operating practices for the movement as a whole.

EU RED-approved certification schemes vary greatly both in their general system requirements, for example on standard setting and governance procedures, and in their environmental and social criteria. The aim of this project is to clarify the overall theoretical contribution to sustainability that biofuel production makes within the scope of the voluntary schemes approved by the EC.

The study assessed all 13 certification schemes for biofuels that were recognized by the EC at the time this report was prepared. Through a desk study, it analyses their strengths and weaknesses at the scheme level, which includes governance and other procedural and structural arrangements likely to influence implementation. In addition, the report evaluates the content of the standards with regard to social and environmental criteria, and identifies areas where the schemes can improve.

1.2 EU RED

The use of biomass as a substitute for fossil fuels has increased over the last decade, and concerns about the sustainability of the production and use of biomass have grown with it. In many regions of the world, different governance mechanisms have emerged which aim to ensure biomass and bioenergy sustainability. These mechanisms may take the form of legislation, international agreements, jurisdictional guidelines, company policies or market-based certification schemes.

One important example is the EU, which resolved in 2009 to implement legislative sustainability criteria for liquid biofuels (contained in EU RED – Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources). For bioenergy production to count toward member states' renewable energy targets, it must comply with the sustainability criteria in EU RED.

EU RED introduced mandatory and non-mandatory sustainability requirements for biofuels. Mandatory requirements are conditions that biofuels have to fulfil in order to be counted toward national renewable energy targets and be eligible for financial support. They include minimizing GHG emissions, not cultivating biofuels on land with high biodiversity value or high carbon stocks and, in the case of member states, adopting agro-environmental practices. Other rules for mass balance and traceability requirements, including socioeconomic sustainability (such as labour conditions, the availability of feedstock/raw materials at affordable prices, and respecting land use rights) are non-mandatory under EU RED. The EC may decide in the future to make non-mandatory requirements compulsory. Further requirements related to indirect effects of land-use changes were under discussion in 2012 and 2013.

The EC was a pioneer in the implementation of co-regulation (such as the voluntary certification schemes provided for by the EU RED) in the field of biofuel sustainability. This is the first time the EC has used certification schemes as a co-regulation element. Therefore, it will be important to measure the impact of certification on the ground and compare the results with the legal objectives.¹⁰

1.3 Methodology

For the analysis and comparison of the standards and schemes, this study used the Certification Assessment Tool (CAT) developed by WWF. The CAT is a formal tool for analysing and comparing voluntary standards and certification schemes. Using a detailed set of questions and criteria, the tool uses a point system to assess the strategic, structural, social and ecological strengths and weaknesses of standards and certification schemes against WWF's requirements for a sustainable environmental and social standard. The CAT also identifies areas where the standards and certification schemes can improve. The set of questions and underlying analysis can be found in Appendix B.

The CAT is a desk-based exercise, based on criteria and processes defined in a scheme's documentation. Thus, CAT assessments cannot evaluate how a given scheme's requirements are implemented.

Table 1.3 Schemes approved by the EC

ISCC EU	International Sustainability and Carbon Certification
Bonsucro EU	Bonsucro – Standard for Sustainable Sugarcane Production
RTRS EU RED	Round Table on Responsible Soy EU RED
RSB EU RED	Roundtable of Sustainable Biomaterials EU RED (ehemals Roundtable of Sustainable Biofuel)
2BSvs	Biomass Biofuels Voluntary System
RSPO RED	Round Table on Sustainable Palm Oil RED
NTA 8080	NTA8080
Redcert	REDcert
sqc	Scottish Quality Farm Assured Combinable Crops System
Red Tractor	Red Tractor Farm Assurance Combinable Crops & Sugar Beet System
RBSA	Abengoa RED Bioenergy Sustainability Assurance
Greenergy	Greenergy Brazilian Bioethanol verification programme
Ensus	Ensus voluntary System under RED for Ensus bioethanol production

Information sources used for the study include current versions of the standards as well as publicly available information published by the EC, on the websites of standard-setting organizations, and on the websites of relevant external organizations. Representatives of each standard organization were given a written copy of the analysis pertaining to their respective scheme, then interviewed to verify, cross-check and supplement the data. Comments received from the standard-setting organizations were integrated before the assessments and report were finalized.

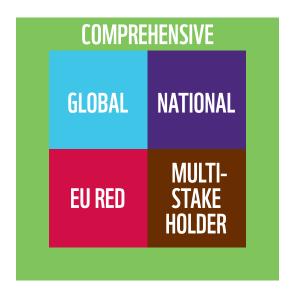
1.3.1 Categorization of the analysed schemes

The 13 schemes recognized under EU RED vary greatly in their scope, organizational structure and intention. To ensure better comparison of the analysed results, the schemes were categorized and grouped into six clusters.

By using this approach, the strengths and weaknesses of the individual standards can be pinpointed and the specific characteristics of each group can be identified.

Geographically, some schemes apply globally while others focus on specific regions. Another important differentiator, which is partly linked to geographic scope, is the coverage of the criteria. Some schemes, especially those that focus on production in EU countries, cover primarily EU RED requirements while others, notably those with a global scope, go further and formulate a more comprehensive criteria set. Not all standards were developed with the participation of all relevant stakeholders. In a balanced multi-stakeholder process, representatives from businesses, civil society, governments, research institutions and non-governmental organizations are involved on an equal basis and are equally represented. This applies to the original establishment of the certification scheme and the standard as well as to implementation and further development.

Table 1.3.1 Categorization of standards



	Global	National
Comprehensive Criteria	RSPO RSB RTRS Bonsucro ISCC NTA8080	Greenergy
EU RED Criteria	2BSvs RedCert ¹¹ RBSA Ensus	Red Tractor SQC
Multi-Stakeholder Involvement	RSPO RSB RTRS Bonsucro ISCC ¹² NTA8080	Greenergy ¹³

Legend: Geographical scope

National: Standard applies to a specific country/region Global: Standard applies globally (with potential limitations)

Coverage of criteria

EU RED: Standard covers primarily EU RED mandatory requirements

Comprehensive: Standard goes beyond EU RED and formulates a more comprehensive

set of social and environmental requirements

Multi-stakeholder involvement

Standard is developed and maintained with multi-stakeholder participation

2 Results of the analysis

2.1 Compliance with ISEAL Alliance Code of Good Practice

One of the main reference documents of the CAT is the "ISEAL Code of Good Practice for Setting Social and Environmental Standards". ISEAL is an NGO whose mission is to strengthen standards systems for the benefit of people and the environment. Membership is open to all multi-stakeholder sustainability standards and accreditation bodies that demonstrate their ability to meet the ISEAL Code of Good Practice and accompanying requirements, and commit to learning and improving. WWF supports the use of existing international norms formulated in the ISEAL Code of Good Practice from 2004 (see Appendix B) as the basis for developing standards. The code is a widely accepted reference for legitimate, effective and inclusive standard development processes as well as for the structure and content of standards.

The credibility of ISEAL requirements has also been recognized by the German Federal Ministry for Economic Cooperation and Development (BMZ). In a recent report, compliance with the code is mentioned as an indicator for sound verification criteria and requirements.

To provide an overview of which standards refer to the ISEAL Code, this study differentiates between four categories: Full member = F, Associate member = A, Refers to ISEAL Code (affiliate member) = R, No information available = N.

2.2 Assessment results

2.2.1 Overview of assessment results

Table 2.2.1 provides an overview of the assessment results. It shows all scores

in relation to EU RED criteria, internal governance requirements, and environmental and social criteria. The rating is indicated by colour:

- Green indicates that the scheme/standard completely fulfils the CAT criterion.
- Yellow indicates that some parts of the CAT criterion is fulfilled, but there is need for improvement.
- Red indicates that the CAT criterion is not fulfilled, or there is no relevant information available.
- Grey indicates that the CAT criterion is not applicable.



Table 2.2. Overview of assessment results
: Completely fulfilled CAT criteria
: Limited fulfilled CAT criteria
: not full filled or no information available
: Non-applicable
F: Full membership
A: Associate membership
R: refers to ISEAL Code
N: no information

Comprehensive	e criteria set	EUF	RED crit	teria			
Global		Global					
RSPO RTRS RSB	Bonsucro ISCC NTA 8080	Greenergy Red Tractor	SQC	2BSvs REDcert	RBSA	Ensus	
Multi-Stakehold	der Involvement						

EU RED criteria							
EU RED ecological criteria							
Minimum GHG reduction threshold							
Protection of high carbon stock areas							
Land-use change							
Traceability & mass balance							
SCHEME REQUIREMENTS							

R

R

Ν

Ν

Ν

Ν

Ν

Ν

Ν

Ν

Development and operation of scheme/standard

Compliance with ISEAL's Code of Good Practice

Written commitment to reduce negative impacts

Compliance with regional, national and international laws

Multi-stakeholder involvement in the standard development process

Multi-stakeholder participation in the standard system

Scientific input (inclusion of scientific expertise in the standard development process)

Results-oriented structure

Transparency in public reporting

Transparency in communication of the standard's documents and processes

National/regional adaptations of the criteria for global schemes available

Complaint and appeal process (grievance mechanism) for certification bodies and stakeholders

Regular reviews and revisions of the standard

Business model available

No partial certification

Conformance requirements

Accreditation

Stakeholder consultation in certification and auditing process

Training of auditors

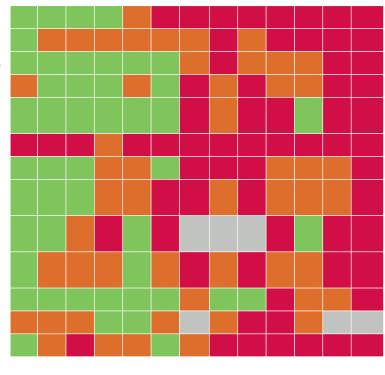
Training opportunities for users of the standard

Audit frequency

Audit sample size

Sanction mechanisms

Approval sanctions for certification bodies





Overview of assessment results : Completely fulfilled CAT criteria : Limited fulfilled CAT criteria : not full filled or no information available : Non-applicable Comprehensive criteria set Implement. of EU RED criteria

Global National Global

RSPO
RTRS
RTRS
RTRS
RTRS
ROSB
ROSB
ROSB
REd Tractor
SQC
2BSvs
Red Cert
RBSA
Ensus

	Multi-Stakeholder Involvement											
ENVIRONMENTAL AND SOCIAL REQUIREMENTS												
Environmental and social criteria												
Social and environmental management system (EMS)												
Biodiversity and conservation												
Biodiversity assessment												
Protection of HCV and priority conservation areas												
Set asides, buffer zones, wildlife corridors												
Endangered / protected species												
Invasive species												
Use of genetically modified organisms & option for segregated supply chains (chains of custody)												
Water												
Riparian vegetation defined and restored												
Water availability												
Improvement of water quality												
Water use and efficiency												
Protection of surface water and groundwater												
Soil												
Erosion prevention												
Soil quality												
Crop rotation/intercropping												
Soil structure												
Topography												
Agrochemicals and fertilizers												
Integrated pest management												
Restriction of the use of the most hazardous/highly toxic agrochemicals												
Application of agrochemicals and fertilizers												
Documentation												
Storage												
Disposal												
Greenhouse gases												
Reduction of greenhouse gas emissions (exceeding the EU RED requirement)												
Waste management												

Waste management



Overview of assessment results : Completely fulfilled CAT criteria : Limited fulfilled CAT criteria : not full filled or no information available : Non-applicable

Comprehensive criteria set							Implement. of EU RED criteria						
Global					Nati	onal		Glo	bal				
RSPO	RTRS	RSB	Bonsucro	ISCC	NTA 8080	Greenergy	Red Tractor	SQC	2BSvs	REDcert	RBSA	Ensus	
Multi-Stakeholder Involvement													

ENVIRONMENTAL AND SOCIAL REQUIREMENTS

Forced labour

Child labour

Safe and healthy work conditions

Spraying of pesticides and health protection

Complaint and appeal process (grievance mechanism) for workers

Freedom of association

Working hours

Remuneration

Disciplinary practices

Discrimination

Social: Surrounding communities

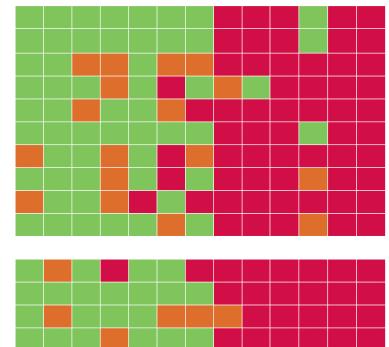
Social context and welfare

Land availability and rights

Grievance mechanisms for local communities

Preservation of cultural heritage

Food security



2.2.2 Key findings

This section summarizes the key findings from the analysis of the various schemes. It includes overall observations on the categorization of the schemes and aggregated findings on system-specific requirements as well as environmental and social criteria.

Implementation of the EU RED requirements

Since all standards assessed in this study have been recognized by the EC, each of them implements all of the mandatory criteria specified by the EU RED (i.e. no conversion of areas with high biodiversity value, reduction of GHG emissions by a minimum of 35 per cent, no conversion of high carbon stock areas as of the cut-off date of 01 January 2008, and traceability). The implementation of the mandatory EU RED requirements is one of the positive results of the RED. Through this legal framework ambitious new criteria for production was introduced for an industry – cut off date, GHG emission calculation, mass balance and traceability rules. Nevertheless there are quality differences in the implementation by different standards viewable, e. g. different mass balance periods, very different level of accreditation procedures and so on.

Internal governance and organization

The internal governance and organizational structure of a scheme has a significant influence on the robustness of its requirements and implementation in practice. A transparent and broad governance and organizational structure increases the likelihood of field-level implementation.

As the overview table shows, there is a significant difference in the organizational and governance structure between globally applicable multi-stakeholder schemes with a comprehensive criteria set, and the schemes which are focused on the implementation of EU RED on a global or national level.

- » Stakeholder participation: Most multi-stakeholder schemes have a comprehensive set of criteria and provide documents and information about stakeholder participation in the (further) development and implementation of the standard. There are opportunities for improving transparency and documentation of the participation, processes and decision-making procedures. The aim is to ensure equal representation of all of the stakeholders (as in the case of RSPO, RSB, RTRS and Bonsucro).
- » Transparency in public reporting: Virtually all the schemes can improve their documentation and public reporting. In particular, schemes that concentrate on fulfilling EU RED criteria often lack publicly accessible audit summary reports, information on accreditation status (such as availability of accreditation reports) and approval sanctions for certification bodies. There is also a lack of documentation of meetings and minutes of meetings held by supervisory committees (e.g. in the case of REDcert, ISCC (in some areas), 2BSvs and others).

- » Audit frequency: On a positive note, audit frequency by certification bodies and sampling procedures are precisely defined by most of the standards (both multi-stakeholder and EU RED standards).
- » Accreditation: The standards use a very wide range of accreditation approaches, including by national accreditation bodies (ISCC and REDcert are accredited trough the BLE in Germany), via full or affiliate members of ISEAL (e.g. ASI), or merely by committing to comply with ISO standards. Only a few schemes require an independent accreditation process based on ISO standards with additional requirements for the respective standard (e.g. RSPO, RSB).
- » Complaint procedures and grievance mechanisms: On a basic level, all standards have requirements for dealing with complaints regarding the certification results. In comparison with the schemes focused on EU RED, the international multi-stakeholder schemes with comprehensive criteria have much stronger grievance processes for affected communities and other stakeholders.
- » Business model and financial independence: Nearly half of the schemes provide general information about their business models and their strategy for achieving their vision and/or mission. Financial information and key performance indicators (KPIs) are generally not disclosed (e.g. 2BSvs & SQC do not disclose any information in this regard).
- » Impact assessment and monitoring the long-term effects of certification: With the exception of Bonsucro, nearly all schemes either have no monitoring and evaluation system or have only a poorly developed one. A monitoring and evaluation system should include steps for identifying the impact the standard intends to achieve, for defining strategies for achieving that impact, and for selecting appropriate indicators. The schemes should collect data in the field, conduct regular progress analysis and report relevant data; they should perform additional impact assessments and set up feedback loops to improve the content of their standard. They should also be capable of examining both the short-term and long-term effects of the standard.

Environmental and social requirements

Sustainability schemes are market-based tools, designed to address the most pressing social and environmental issues of our time. The premise is that sustainability standards that are credible and effective can bring about globally significant social, environmental and economic impacts. This is only possible if ambitious requirements are established in all areas, but particularly with regard to social and environmental criteria.

The study shows that the standards which focus solely on the mandatory EU RED criteria do not make a contribution to ongoing environmental and social improvements.

» Compliance with EU RED criteria: Since all standards subject to this assessment have been approved by the EC, all of them fulfilled the EU RED criteria (e.g. no conversion of land with high biodiversity value, reduction of GHG emissions by at least 35 per cent, no conversion of high carbon stock areas as of the cut-off date of 1 January 2008).

- » Biodiversity and social criteria: With regard to meeting social and environmental requirements, the assessment results show clear differences between standards designed to comply solely with mandatory EU RED criteria and the more comprehensive global standards established as part of a multi-stakeholder scheme, which include all the end uses of the raw materials/feedstock (food and feed industry, etc.).
- » Separate value chains (chain of custody) for non-GMO materials: Only the RTRS certification scheme provides the option of using a separate chain of custody for non-genetically modified material.
- » Restriction on the use of hazardous chemicals: Most standards do not include clear requirements prohibiting or restricting the use of hazardous agrochemicals. Almost all standards have a general requirement for reducing the most hazardous agrochemicals (World Health Organization (WHO) Classes 1A and 1B) as well as substances banned by the Stockholm and Rotterdam Conventions. Only a few also include restrictions on WHO Class 2 chemicals. In most cases, the standard requires reducing the use of such chemicals and replacing them with alternative substances. However, the majority of standards do not completely prohibit their use, and do not require a time-bound reduction or phase-out plan. In this context, standards focused on EU members, such as REDcert and Red Tractor, refer to good agricultural practice or European pesticide regulations and do not define their own requirements. Some globally applicable standards such as 2BSvs, ISCC and NTA 8080 do not define any requirements on this crucial point, or only contain very cursory ones.

Conclusion

The aim of this project was to compare the various voluntary schemes approved by the EC under its biofuel legislation and to analyse their strengths and weaknesses.

Using voluntary schemes as a form of co-regulation is a new tool for the EC. The basic idea is that minimum requirements can be implemented on an international level through voluntary schemes. But debate within the EU and worldwide continues surrounding the social and environmental criteria, implementation practices and overall impact of biofuel certification. Therefore, it is extremely important to verify the real effects of voluntary biofuel certification schemes and examine the impact that such standards have on practices outside the EU.

The most important conclusion is that **environmental and social performance varies greatly among the approved standards**. Based on the results of the analysis, the general findings are as follows:

- » All standards have implemented the minimum EU criteria on a similar level.
- » Multi-stakeholder schemes with active participation from different stakeholder groups at all levels of the scheme (from audits to governance) perform better in terms of ecological and social aspects. This means that the multi-stakeholder schemes will most likely result in better field-level implementation, as a solid governance structure, transparency and strong audit and accreditation requirements together increase the likelihood of field-level implementation.
- » A significant number of standards do not address adequately important environmental and social aspects of biofuel production.
- » A significant number of standards scored very low on transparency, internal governance, sample size and audit rigour.

In high-risk countries (countries where risk factors such as land grabbing, converting land after the effective cut-off date, weak governmental performance, etc. are found), we see rapid growth in the use of certain standards that scored low in our assessment. This trend should be a cause of concern for the EU.

The analysis showed that some important areas of sustainability are underrepresented, even in the standards that go beyond EU RED. Some of these areas, such as social, environmental and water management systems, handling of invasive species, handling of hazardous chemicals, maintenance and restoration of riparian vegetation, waste management, segregation of supply chains in order to offer a non-GMO option, etc., are critical from WWF's point of view.

In WWF's opinion, the current mandatory sustainability criteria in the EU RED cannot adequately ensure that domestic or imported biofuels used in the EU are sustainable, since certification often fails to address crucial environmental and social issues.

While most of current biofuel debates in Brussels focus on indirect impacts, WWF would like to point out that various direct impacts are also inadequately addressed. For example, issues related to biodiversity conservation (grasslands with high biodiversity value, crop rotation) and the preservation and improvement of soil, water and air quality are not adequately considered. Key

social issues which are missing include dealing with affected communities and safeguarding food security.

While some of these broader environmental and social criteria are included in the reporting requirements established by EU RED, in WWF's view there is no legal barrier to including social and broader sustainability aspects in the recognition process. In addition to providing more stringent safeguards, the inclusion of further sustainability criteria would enable authorities to more effectively collect information on the impacts of certification and use it for reporting requirements.

3.1 Potential areas of improvement for the analysed standards and schemes

This analysis has shown that all standards and schemes can, and must, be further improved. However, some require significantly less work than others. The globally applicable multi-stakeholder schemes are, generally speaking, more ambitious in their requirements and implemented more robustly, and thus make a greater contribution to safeguarding sustainability.

- » Multi-stakeholder participation with clear rules and a balanced representation of interests is key to improving the standards. The active involvement of stakeholders in the (further) development and maintenance of the standards and a proactive approach to address affected parties during the audit practice should be required.
- » Transparency in public reporting should be improved and audit report summaries, guidelines for auditors and board meeting minutes should be made available to the public. This is an essential prerequisite to facilitate the active involvement of stakeholders.
- » Standards need to go beyond the mandatory EU RED requirements in order to ensure that biofuels used in the EU reach an acceptable degree of sustainability. The requirements presented in the CAT offer a potential starting point for determining which criteria should be included in a sustainability standard for agricultural raw materials and soft commodities (see Appendix A). This particularly applies to water, soil and air quality, and the restoration of native vegetation in riparian and other important areas, as well as to social criteria.
- » Audit practice in the agricultural and farming sector should take a risk-based approach. Mere desk audits for farms outside the EU should not be allowed. Group certification needs to be clearly regulated and should be limited to smallholders and cooperatives that have a robust internal control system in place.
- » All standards should strive to ban highly hazardous chemicals that are listed in WHO Classes 1A and 1B, and those listed in the Stockholm and Rotterdam Conventions. They should also require producers to reduce and actively seek alternatives to WHO class 2 chemicals (e.g. Paraquat) by establishing a timebound plan for phasing out their use.
- » The implementation of the sustainability criteria should be supported by transparent indicators and best practice examples.

- » Monitoring of impacts (results-based monitoring and efficiency monitoring systems) should be a main task in the future, preferably including independent monitoring of on-site field activities.
- » Standards must implement grievance mechanisms at all levels, so that stakeholders have the option to contest certificates and product labels.

3.2 Mutual recognition between schemes

Mutual recognition of the standards approved by EU RED is often put forward as a potentially desirable development. While WWF agrees with some of the arguments, considering the very different levels of environmental and social assurance delivered by different standards, we would not support such a move at this stage. Some of the standards have already developed mechanisms that enable them to accept material certified under a different standard in their supply chain. WWF will support better cooperation between robust, credible standards, but not blanket recognition that fails to consider the coverage of the sustainability criteria.

Our analysis shows, however, that most of the standards have a solid chain of custody system in place. To reduce costs, WWF would support a joint traceability system, provided that the farm-level certification requirements are retained across the chain of custody. For example, if a biofuel feedstock is certified under RSB, but goes through the chain of custody of another scheme, the RSB certification could still be retained.

The EU should support the more ambitious standards, since they raise the bar with criteria that extend beyond current legislation. In WWF's view, all biofuels used in the EU should comply with the same basic framework of minimum sustainability requirements. These requirements should be tailored to the respective environmental and social risks to reduce the burden on the producer.

3.3. Recognition and revision process of the EC

Policy recommendations for the revision of EU RED based on the results of the analysis:

- » The EC needs to specify clearer and more ambitious requirements that all approved schemes have to implement. This would incentivize market uptake of the more ambitious and credible sustainability standards, which more fully cover the sustainability challenges associated with biofuel production. Based on the results of this analysis and the requirements of the ISEAL Code of Good Practice, the EC should prescribe a multi-stakeholder approach for recognized and approved standards.
- » Within the revision of EU RED, requirements that are currently voluntary or are only included as reporting obligations should be made mandatory: social aspects, limitations on the use of hazardous agrochemicals, impact assessment¹⁵ and monitoring, mitigation of negative effects on environmental habitats, strengthening the benefits for surrounding communities, analysis of the impact on food production.

- » Standards that are recognized within the EU RED framework should be required to use an internationally approved accreditation body. This could help harmonize the implementation of EU RED regulations in practice and substantially improve the efficacy of the standards.
- » To strengthen the sustainability value of biofuel certification, the EU RED should include mandatory audits of farms in risk areas and limit the group certification process to smallholders and cooperatives.

3.4 Additional recommendations for the EU RED revision and recognition process (not limited to the analysis results)

The recognition of voluntary standards for implementing EU RED has led to very different levels of quality in implementation. In order to harmonize the interpretation and implementation of mandatory and voluntary EU RED requirements, the recognition process should be more transparent and open to stakeholder involvement. At present, the EC approves voluntary standards and schemes that do not include the input and participation of stakeholders. In WWF's opinion, this represents a major obstacle to ensuring solid implementation of the sustainability requirements of EU RED. Since implementation of the legislation relies on the use of voluntary standards, it is essential that the recognition process is open to the input and involvement of stakeholders.

The current requirements and procedures for recognizing standards do not have any mechanisms in place that give stakeholders the option to appeal or contest decisions. At present, there is no clear procedure to follow if a stakeholder has evidence that certain standards or systems are not in compliance with EU legislation. In addition, there should be clear procedures regarding the implications of inadequate implementation of the standard and potential withdrawal of the recognition.

Implementation of the voluntary schemes could be significantly improved if all standards were required to establish a grievance mechanism for stakeholders on the certification level. If evidence exists that certain certificate holders are not in compliance with the requirements of the standard, processes should be in place to challenge them.

Little information is available on how effectively standards achieve the goals of the EU legislation. An EC monitoring framework could help assess the efficacy of standards overall and determine the comparative effectiveness of different standard schemes. While the recognition process includes some requirements for implementing the criteria, certain elements such as the definitions of audits or sample sizes need to be revised. For example, EU guidelines require certificate holders to undergo an audit, but the exact nature of the audit is not defined. Some standards require both desk audits and field visits while others would certify the same production based only on desk audits and satellite images. While remote sensing can be a useful tool for verifying land use in some cases, WWF believes this must be combined with field audits, especially if broader sustainability aspects such as social issues, water and air quality are included in the requirements. At present, certification steps, scope and frequencies are handled very differently. During the next review, the EC should take standard performance in the field into account, since the actual on-site implementation of some standards differs from the written procedure.

A critical example of this is the way group certification is handled. Group certification and the option for desk audits were originally created for smallholders and/or cooperatives. However, they are also being used today for large and completely independent farms in high-risk regions, such as South America, Central America and Asia. This undermines the intention of EU RED and should be addressed when the performance and effectiveness of the standard are reviewed.

The EU legislation enables member states to recognize other standards in addition to the ones recognized at the EU level. National recognition can be a useful strategy for considering specific national aspects, but it can also lead to unnecessary confusion. Some of the standards have various versions with slightly or completely different requirements recognized by national authorities. The implementation of EU RED should either rely on a single EU process or ensure that all rules regarding implementation pathways follow the same basic guidelines.

Some of the legally binding elements of the legislation lack official guidelines. As a result, there is a danger that standards will adopt different approaches or either not implement or not completely implement the EC's requirements. The issue of highly biodiverse grassland or mass balance reporting periods is a good examples of the need to harmonize the defined EU requirements.

In WWF's view, the ISEAL Code of Good Practice for Setting Social and Environmental Standards should be used as a basis for developing standards. The implementation of the legislation already refers to certain ISEAL guidelines for group certifications. In WWF's opinion, there is no reason why implementation of additional elements of the ISEAL guidelines cannot be made mandatory.

4

Key findings by certification scheme



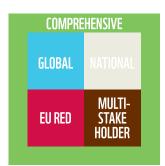
5 4 %

Share of completely fulfilled CAT criteria

Share of partially fulfilled criteria

Share of criteria not fulfilled/ no information available

Share of non-applicable criteria



Following section provides a summary of results by schemes. It provides key findings from system requirements and environmental social requirements with specific examples. While it focuses on distinctive strengths compared to other schemes, it includes all the weaknesses from the CAT criteria.

The summary also provides the share of scores (green, yellow and red and grew).

4.1 Roundtable on Sustainable Palm Oil (RSPO)

RSPO is a multi-stakeholder initiative that was founded in 2004. The Secretariat is based in Kuala Lumpur with a RSPO Liaison office in Jakarta. The standard focuses on palm oil certification. It is globally applicable and can be adapted on a national level. The RSPO EU RED standard is a part of the overall scheme and has to be implemented together with the principles and criteria of the basic standard – the principles and criteria from 2007 were used for the analysis. <code>www.rspo.org</code>

Overall result

- » RSPO is an associate member of the ISEAL alliance
- » One of the few standards with balanced coverage of the criteria in both CAT sections on internal governance and environmental/social requirements.
- » Substantial information on governance and organisational structure, implementation of the standard, and certification procedures is provided on the scheme's website.
- » Environmental and social requirements are covered comprehensively.
- » Some of the points that are criticised in the study are more clearly addressed in the new principles & criteria, which were revised in April 2003.

Governance and organisational structure

Strengths

- » National/regional adaptations available. The standard has a clear procedure for adapting and developing the basic principles & criteria as a national standard and also publishes approved national interpretations of the principles and criteria on the RSPO website.
- » There is a detailed complaints and appeal procedure (grievance mechanism) established in the standard.
- » The standard contains detailed principles and criteria dealing with legal compliance at various levels, including a list of all relevant laws and international treaties. It also includes a system for tracking any changes in the legislation.
- » Accreditation is carried out as **standard-specific accreditation** through an ISEAL member. Accreditation Services International (ASI) is in charge of RSPO accreditations worldwide, thereby harmonising the implementation practice in the field.

» Partial certification is not allowed. Companies are required to draw up and implement a time-bound plan in order to be fully certified. Only a few schemes have a clear criterion about partial certification and RSPO is one of the only two that require a time-bound plan.

Weaknesses

- » Weak points with regard to multi-stakeholder participation in decision making processes in the system for maintaining the standard. The composition of the General Assembly, which is the key decision-making body, is contained in the standard's by-laws and in the information about membership; the decision making processes are defined in the statutes. However, there is a risk that decision-making processes are biased towards certain major stakeholder groups.
- » The standard is process-oriented but lacks a monitoring and evaluation system. There is no M&E system currently in place.
- » The **business model** is unclear. The standard publishes vision and mission statements as well as the value proposition and market data on the RSPO website. In addition, the scheme publishes a business plan. However, it is still unclear how the current and future financial sustainability of the organisation is ensured and how it relates to the activities.
- » There is a lack of detailed information about the training provided. Although the scheme offers training courses for both auditors and standard users, there is no public information on the quality of the training (required duration, contents, execution). Moreover, the training is offered by third parties and not from the certification scheme itself.

Environmental and social criteria

Strengths

- » A social and environmental management system is required. The standard requires the management system to incorporate a social and environmental impact assessment.
- » There are clear requirements with detailed information about procedures expected with regard to a **biodiversity assessment**, priority habitat conservation, and land set-asides. The standard requires a sound biodiversity assessment using internationally recognized tools/protocols as listed in the criterion. Furthermore, guidelines on assessing high conservation value (HCV) areas is also provided.
- » Although some criteria is still lacking in detail, there is comprehensive criteria on water and soil management.
- » There are clear requirements on the implementation of integrated pest management (IPM). The standard also contains criteria about documentation, storage, and disposal of agrochemicals, including detailed requirements and good practices.

- » There are comprehensive requirements concerning labour practices, e.g. forced labour, child labour, safe and healthy work conditions, spraying of pesticides and health protection, grievance procedures for workers, freedom of association, remuneration, and discrimination.
- » Comprehensive requirements regarding the surrounding communities are included. Contribution to local sustainable development is required – companies have to be aware of the impact their operations have on the community and identify local issues in dialogue with local communities. Furthermore, the standard specifically states that if the land is not legitimately owned by the local communities, a grievance procedure for the local communities must be established and an impact assessment on cultural heritage must be conducted.

Weaknesses

- » There are some weak spots concerning the criteria related to **endangered and invasive species** with respect to the biodiversity and conservation requirements. There is no restriction on the introduction of non-native, alien species.
- » There is a lack of details about the water-related requirements, especially in the criteria concerning restoration of riparian vegetation and water availability. The standard specifies that riparian buffer zones and corridors have to be maintained and restored. However, the standard has no specific requirements with regard to a time-bound plan for restoring riparian areas. The standard requires the implementation of a water management plan that prescribes the efficient use and renewability of resources, and ensures that water use does not have adverse effects on others who rely on the same resource. However, there is no differentiation between irrigated and rain-fed systems.
- » **Hazardous chemicals** ¹⁶ are not explicitly prohibited. Furthermore, the details about the use of agrochemicals and fertilisers are not clear. Although the standard requires that the use of agrochemicals and fertilisers must be based on technical criteria aligned with the plant and soil requirements, it does not specifically state that pesticide use should generally be restricted and/or avoided.
- » The standard requires tracking of **GHG emissions**, but the companies are not obliged to publish results or action plans before 2017, which significantly weakens the GHG criteria.
- » There are weaknesses in the details concerning the criteria for working hours and disciplinary practices. The standard includes clear requirements regarding working hours, but nowhere does it specify the exact number of hours that an employee is allowed to work, (e.g. max. 48 hours per week). Furthermore, although several elements related to the responsible treatment of workers and communities are indirectly addressed through the various criteria in principle 6, the standard could cover disciplinary practices more clearly.
- » Food security is not covered. The (2007) standard does not contain a requirement about local food security; however, this is included in the new P&C revised in April 2007.



30 % 64

Share of completely fulfilled CAT criteria

- Share of partially fulfilled criteria
- Share of criteria not fulfilled/ no information available
 - Share of non-applicable criteria



4.2 Round Table on Responsible Soy Association (RTRS)

RTRS is a multi-stakeholder roundtable initiative in which a large number of stakeholders are involved. The standard focuses on soy and is globally applicable. The association was founded in Switzerland in 2006, while the Executive Secretariat is based in Buenos Aires, Argentina. The RTRS EU RED standard is included in the overall scheme.

www.responsiblesoy.org

Overall result

- » One of the few standards with balanced coverage of the criteria in both CAT sections on governance and organisational structure and environmental/social requirements.
- » Substantial information on internal governance, implementation of the standard, and certification procedure is provided on the RTRS website.
- » Environmental and social requirements are covered comprehensively.
- » RTRS is the only standard with a group certification process which requires that all farms in the group have to be visited within five years.
- » RTRS is the only standard which offers a separate supply chain certification for non-GMO materials.

Governance and organisational structure

Strengths

- » Comprehensive information on multi-stakeholder participation in setting and operating the standard is provided. Key decision-making bodies are composed of different stakeholder groups, so that decision making is balanced.
- » National/regional adaptations are available and already approved and in use in three countries: Brazil, Argentina, and Uruguay. Procedures to endorse national/regional interpretations are available, and mechanisms and processes are in place to facilitate the harmonisation/equivalence of national schemes within the international system.
- » Details about **training** are provided. On its website, the RTRS states that it facilitates lead auditor training courses several times per year and in different places, based on demand. According to RTRS, in addition to the lead auditors, these courses are also available for those people who want to deepen their knowledge about the standard. The content of the training course is also outlined on the website.

Weaknesses

» There are weak points as regards compliance with regional, national, and international laws. Although the standard includes a criterion on legal compliance, there is neither a list of relevant laws or international treaties, nor a system to track relevant changes in the legislation.

- » The standard is process-oriented but lacks a **monitoring and evaluation system**. Qualitative information on the impacts of the RTRS is provided in the form of case studies. However, there is no M&E system in place.
- » Details about the grievance mechanism are unclear. A documented grievance mechanism exists, however, the grievance procedures do not include the option to forward the complaint to an independent body. In addition, deadlines for handling complaints are not clear.
- » The **business model** is unclear. Although the standard organisation has a clear vision and mission, it does not provide a specific explanation of the value proposition for the operators.
- » Partial certification is possible. Although the by-laws oblige members to design their soy supply chain in a responsible manner, the standard does not explicitly require time-bound commitments towards certifying entire holdings.
- » There are still weaknesses in the accreditation area. The accreditation is not always undertaken by international accreditation bodies that are full ISEAL members.

Environmental and social criteria

Strengths

- » A segregated supply chain is available for **non-GMO** materials.
- » The standard includes comprehensive criteria on riparian vegetation and buffer zones. The standard specifies that the size of riparian vegetation areas has to be defined and that areas in which the vegetation is removed must be restored based on a time-bound plan.
- » The standard has a many requirements for soil management processes. Details and measurement procedures are provided in the standard's annexes and in national interpretations.
- » The standard specifies and requires the implementation of an IPM system. Furthermore, it contains clear criteria about documentation, storage and disposal of agrochemicals. For example, it has precise requirements about internationally accepted practices for storing agrochemicals and fertilisers.
- » All labour-related criteria are fully covered, e.g. concerning forced labour, child labour, and safe and healthy work conditions, spraying of pesticides and health protection, grievance mechanisms for workers, freedom of association, working hours, remuneration, disciplinary practices and discrimination.

Weaknesses

» A **social and environmental management system** is not explicitly required. The standard requires a social and environmental impact assessment. It also implies that there is a management programme and monitoring with regard to social, environmental, and agricultural issues. However, it is unclear to what extent training, community engagement, and reporting are required.

- » The requirement related to biodiversity and conservation is not covered comprehensively. For example, while the standard refers to buffer zones and biodiversity reserves in the annex, it is not very specific. Similarly, although it has specific requirements on the establishment of conservation zones or protection areas based on national level macro-scale maps, it does not explicitly outline that endangered species must not be exploited for commercial purposes. The standard does not prohibit the introduction of non-native, alien species.
- » Parts of the section on water are not explicitly addressed. There are no requirements about water use and efficiency. In addition, although the standard requires implementing good water management practices, it does not provide detailed information about water availability and run-off and leaching. For example, there is no differentiation between irrigated and rain-fed systems and no mention of leaching.
- » There is a lack of details in terms of requirements for improving soil structure and topography, crop rotation is one option, along with others.
- » The most **hazardous chemicals** are not explicitly banned.
- » The requirement on agrochemicals is not sufficiently detailed. According to the standard, the use agrochemicals and fertilisers must be based on professional recommendations. However, the requirements are not very specific and the standard does not expressly state that pesticide use should generally be restricted and/or avoided.
- » Lack of details as regards the criterion specifying that producers must monitor and reduce GHG emissions at the farm/facility level beyond the scope of the EU RED requirements.
- » Weak spots regarding the requirements concerning social groups and surrounding communities. There is a lack of details about the requirement specifying that companies must be aware of social issues in the region and promote social welfare programmes. Furthermore, there is no clear grievance mechanism for local communities in place.
- » There is no requirement about **food security**.



4.3 Roundtable on Sustainable Biomaterials (RSB)

RSB is a multi-stakeholder roundtable initiative which is applicable without geographical or commodity limitations. The RSB was initiated as "The Roundtable on Sustainable Biofuels" in 2007 by the Ecole Polytechnique Fédérale de Lausanne (EPFL) and was based there until the end of 2012. On January 1, 2013, the RSB formally became an autonomous non-profit organisation based in Geneva, Switzerland, and changed its name to "Roundtable on Sustainable Biomaterials" on 18 March. The RSB EU RED standard is part of the overall scheme. http://rsb.org/

Overall result

- » RSB is a full ISEAL member
- » One of few standards with balanced coverage of the criteria in both CAT sections on governance/organisational structure and environmental and social requirements. RSB is the standard with the highest fulfilment rate of the CAT requirements.
- » RSB is the only standard which requires 100% farm certification based on the EU RED standard.
- » RSB requires reductions in GHG emissions that exceed the current EU RED threshold.
- » Some elements of the standard related to environmental performance need to be improved. For example, while detailed procedures are defined for biodiversity and conservation as well as for water, requirements for agrochemicals are less comprehensive.

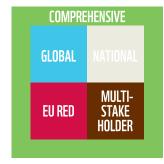
Governance and organisational structure

2 6 % 76

- Share of completely fulfilled CAT criteria
 - Share of partially fulfilled criteria
- Share of criteria not fulfilled/ no information available
 - Share of non-applicable criteria

Strengths

- » Comprehensive information on **multi-stakeholder participation in setting and operating standards** is provided. Key decision-making bodies are composed of different stakeholder groups and the decision making process is balanced.
- » Total compliance with the requirements regarding accreditation, audit frequency and sampling as well as sanction mechanisms.
- » The standard clearly requires conducting proactive stakeholder consultations during audits.
- » Furthermore, the standard organisation provides training for auditors on a regular basis, which also target consultants and biofuel industry representatives. Details about the training courses are published on its website, for example, the training course in April 2013 lasted 2.5 days and included practical exercises.



Weaknesses

- » There are weak spots with respect to compliance with regional, national and international laws. The standard does not include a list of all relevant laws and international treaties, nor a system for tracking changes in the legislation.
- » The standard is process-oriented, but lacks a monitoring and evaluation system. There is no M&E system currently in place.
- » National/regional adaptations for global schemes are not available. Through the RSB standard for adaptation to geographical conditions, mechanisms and processes are in place to facilitate the harmonisation/equivalence of national schemes within the international system. However, there are currently no national interpretations available yet.
- » Weaknesses in complaint and appeal procedures exist. RSB accredited certification bodies are required to establish a publicly available grievance mechanism in line with this standard. However, there no defined deadlines for handling complaints.
- » The **business model** is unclear. The work plan provides information about the activities planned for one year, but does not present precise strategies and resources for implementing them.
- » Partial certification is possible. The standard does not require a time-bound commitment for certifying entire holdings nor does it contain requirements to stop all "poor practices" across the entirety of their holdings, including non-certified areas and including those without any significant conversions in the last five years, or a commitment to comply with the core International Labour Organization (ILO) conventions.

Environmental and social criteria

Strengths

- » Advanced targets are defined for the minimum threshold for reducing GHG. The standard has its own target for reducing GHG emissions that go beyond the legal minimum, which is currently 35% as defined by the EU RED for bioenergy. RSB is one of the two standards which contain these advanced targets.
- » A social and environmental management system is required. The standard requires that the management system incorporate a social and environmental impact assessment.
- » Detailed procedures are required with regard to biodiversity and conservation, water, and soil. Biodiversity assessments and protection of ecological corridors and endangered species are mandatory.
- » The requirement pertaining to **soil management** is comprehensively covered. This applies, e.g., to the topics of soil structure and fertility. The standard does not completely fulfil the CAT criterion, as it does not contain a detailed requirement on topography.

» Social groups and surrounding communities are covered by comprehensive requirements, e.g. concerning social context and welfare, land availability and rights, grievance procedures for local communities, cultural heritage, and food safety. For example, special programs must be designed for the target groups, which are based on a baseline social survey. In addition, the standard requires assessing not only the formal, but also informal land rights and land use rights. It also includes a clear requirement on grievance procedures by providing detailed guidelines on how to conduct consultations with local communities.

Weaknesses

- » There are weak spots with respect to the criteria for handling non-GMO materials. While the standard requires following relevant national or international guidelines on the use of GMOs, there is not a separate supply chain (chain of custody) for non-GMO materials.
- » Lack of details as regards the criteria about identifying and restoring riparian vegetation. The standard requires that buffer zones must be established between the operating site and surface or ground water sources. It also includes a water impact assessment. However, the standard and the water impact assessment do not explicitly require a binding plan or timetable for restoring riparian areas.
- » The most hazardous chemicals are not explicitly banned. WHO Class 2 chemicals are not expressly banned. Requirements for agrochemicals are not comprehensively addressed.
- » There are no explicit requirements on IPM. Furthermore, although the standard mentions both the storage and disposal of chemicals, it does not provide detailed requirements or internationally accepted practices.
- » There is a lack of details with respect to the criterion for safe and healthy work conditions. The standard only prohibits the exposure of workers to any occupational health or safety hazards without adequate protection and training as defined in national law and in international standards, but it does not explicitly specify which measures to take, especially if internationally recognized standards are not in place.
- » There are weak spots regarding the criterion about **grievance mechanisms for workers**. Principle 4 of the standard indirectly addresses a key element of a grievance procedure for workers. However, it does not provide for an agreed-upon procedure for handling grievances between workers and owners.



45 % 48

- Share of completely fulfilled CAT criteria
 - Share of partially fulfilled criteria
- Share of criteria not fulfilled/ no information available
 - Share of non-applicable criteria



4.4 Bonsucro

Bonsucro is a multi-stakeholder roundtable initiative whose standard is designed specifically for sugarcane production. The first meeting of the scheme took place in 2005 and the certification system is applicable without geographical limitations. The executive office is based in London. The EU RED standard is part of the overall scheme.

http://www.bonsucro.com/

Overall result

- » Bonsucro is full ISEAL member.
- » One of a few standards with balanced coverage of the criteria in both CAT sections on governance/organisational structure and environmental/social requirements.
- » While the standard includes comprehensive requirements for environmental and social performance, there is only limited information provided about the details concerning procedures, indicators for monitoring, and good practices.
- » Bonsucro is the only scheme which is a metric-based standard and has developed parts of an M&E system.
- » One of the three standards which includes its own GHG emission target for all application areas.

Governance and organisational structure

Strengths

- » Comprehensive information on **multi-stakeholder participation in setting and operating standards** is provided. Key decision-making bodies are composed of different stakeholder groups and the decision making process is balanced.
- » Bonsucro is the only standard which contains a **procedure for monitoring and evaluating impacts** in connection with certification activities. The environmental management plan includes measures/practices, targets, and progress achieved for various indicators such as, e.g. biodiversity, ecosystem services, soil, water, air, etc. Environmental management plans are a first step towards establishing an M&E system.
- » Details about training courses are provided. The standard provides training for producers and auditors. The duration of the training is listed on the Bonsucro website and the Bonsucro calendar of events shows that trainings are offered on a regular basis.
- » Bonsucro is one of three standards which requires additional ambitious targets for reducing GHG emissions, which exceed the EU RED requirements.

Weaknesses

- » There is a lack of details with regard to compliance with regional, national and international laws. The standard essentially requires compliance with all applicable regional and national laws and it also generally refers to relevant conventions and international treaties in the guidelines on the relevant criteria. However, there is no system in place to systematically track changes in the legislation.
- » There are weak spots in the area of transparency in public reporting and communication of the standard's documents and processes. For example, summaries of certification reports with corrective action requests are not made available to the public, and the same applies to guidelines for auditors, minutes of board meetings, and accreditation reports.
- » There are no clear processes or procedures for **national/regional adaptation**.
- » There is a lack of detailed information as regards grievance mechanisms. There is a complaint resolution process, but it is not clear whether the complaints process is open to any interested party. Furthermore, there are neither defined deadlines nor an option to forward the complaint to an independent body.
- » Partial certification is possible to a certain degree. The mill is the certifying unit and can decide which part of the production should be certified. The code of conduct calls for companies to strive for 100% certification. However, the process is not stringent enough.
- » There are weaknesses with respect to accreditation. Accreditation is not undertaken by an independent body, but by Bonsucro (Better Sugar Cane Initiative Ltd) itself.
- » The scheme does not provide sufficient details concerning stakeholder consultation during the certification process. Although the standard, the certification protocol, and the grievance procedure require a dispute resolution process to be in place and that complaints by stakeholders must be addressed, it remains unclear to what extent stakeholder consultation has to be integrated into the certification process.
- » Sanction mechanisms for both certification and accreditation are not clearly defined. There are no defined timeframes for handling issues related to sanctions.

Environmental and social criteria

Strengths

- » All elements of a social and environmental management system are covered in the standard. Biodiversity assessments and priority habitat conservation are addressed. In the case of greenfield development or new sugarcane projects, the standard prescribes compliance with a recognized ESIA (environmental and social impact assessment).
- » The standard contains a detailed requirement for improving water quality as well as water use and efficiency.

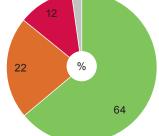
- » Although some criteria are lacking in detail, social and labour performance is comprehensively covered.
- » The standard includes references to preserving **cultural heritage**.

- » Not all of the criteria for **biodiversity and conservation** are detailed. For example, in-depth information on the criteria regarding endangered species is not provided. In addition, the standard does not explicitly prohibit the introduction of non-native, alien species.
- » Concerning the topic of water management, there is a lack of detail as regards the criteria on **protecting riparian vegetation and on water availability**, and there is no mention of leaching. For example, the standard does not include explicit criteria for producers in terms of defining the size of riparian vegetation areas according to the region, type of terrain, wildlife, and agricultural practices used.
- » Requirements for soil management are not covered comprehensively, e.g. erosion prevention, soil structure, and topography. Regarding the soil structure, the standard mentions it, but the criteria for maintaining soil structure are not detailed enough and do not include any accepted practices.
- » The standard does not explicitly ban the use of the most hazardous agrochemicals.
- » Requirements for agrochemical use are not detailed enough. There is a lack of details on the criteria regarding the storage and disposal of agrochemicals. The standard does not include an internationally accepted practice for the use of agrochemicals.
- » Requirements related to social groups and surrounding communities are only partially addressed. For example, there is neither a criterion about social context and welfare nor a specific requirement on food security.



4.5 International Sustainability & Carbon Certification (ISCC EU)

ISCC is a global initiative developed in Germany in 2008 with multi-stakeholder involvement. The certification scheme covers all types of biomass and is globally applicable. Important decisions on the definition and further development of the system are made by the ISCC Association. ISCC System GmbH, based in Cologne, Germany, is the operator of the ISCC scheme; the ISCC EU RED Standard was approved by the EU in 2011. On the international market, ISCC EU is the most widely used scheme for EU RED certification. www.iscc-system.org/



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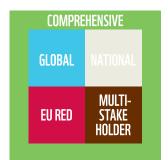
- Share of completely fulfilled CAT criteria
 - Share of partially fulfilled criteria
- Share of criteria not fulfilled/ no information available
 - Share of non-applicable criteria

Overall result

- » One of a few standards with balanced coverage of the criteria in both CAT sections on governance/organisational structure and environmental/social requirements.
- » ISCC is a multi-stakeholder initiative, but balanced decision making structures and active participation by NGOs are not adequately incorporated into the decision making procedures or with respect to inclusion of stakeholders in the certification process.
- » ISCC has clear written requirements on audit sample sizes, the option for desk audits depending on the risk class, and group certification. However the practical implementation of these requirements in third-world countries needs further investigation.
- » The complete audit reports are published on the ISCC website on a voluntary basis (after consent from the company).
- » ISCC is the only standard with an established integrity control system.

Governance and organisational structure

Strengths



- » National/regional adaptations are available. Mechanisms are in place to facilitate harmonisation and the scheme includes a system for tracking changes in the legislation.
- » There is a complaints and appeal procedure (grievance mechanism) in place. The procedure is published on the ISCC website. The certification bodies are also required to have a published grievance procedure.
- » The ISCC has a strong, market-oriented **business model**. Furthermore, operational objectives and ISCC's value proposition are outlined on the website.
- » ISCC System GmbH offers regular training for auditors and users of the standard. Auditors are required to attend a 3-day training session. The content of the training is not publicly available. ISCC has created and implemented its own integrity programme which monitors the performance of the involved certification bodies independently from the **accreditation process**.

Weaknesses

- » There are weak points with regard to the **written commitment to reduce the impacts** for standard organisations and members. The ISCC statutes outline the purpose and tasks of ISCC. Although there is a written commitment, it is not publicly available.
- » There is a lack of details concerning compliance with regional, national and international laws. Although the standard prescribes compliance with relevant laws and there are guidelines for each country ISCC is active in, there is no system in place to systematically track changes in the legislation.
- » Weaknesses in terms of multi-stakeholder participation in the certification system. There is no mechanism for the GA (General Assembly) to ensure that decision-making processes are not biased towards particular major stakeholder groups.
- » The standard is process-oriented, but only has a very limited **monitoring** and evaluation system. There is no fully established M&E system in place.
- » Lack of transparency in public reporting and communication of the standard's documents and processes. For example, mandatory summaries of certification reports with corrective action requests, guidelines for auditors, minutes of board meetings, and accreditation reports are not made publicly available. Upon consent from the company, complete audit reports can be published on a voluntary basis on the ISCC website; as of July 2013, 3.5 % of the certified companies had opted to do this.
- » Partial certification is possible to a certain degree. According to the standard, all departments and areas that are not subject to certification have to be compliant with the ISCC Principle 1. However, it does not explicitly require that departments and areas which are not directly subject to certification also have to comply with all the other principles and there is no mandatory time-frame as regards the complete certification of all company areas (for the agricultural and farming sector).
- » There are weaknesses with respect to accreditation. While ISCC EU accreditation can be done via recognition by a national accreditation body or public authority (in Germany, the BLE), different certification bodies can be approved by different accreditation bodies, which makes it difficult to globally harmonise implementation of the standard.
- » There is a lack of details about stakeholder consultation in the certification process. The standard requires documented procedures on how certification bodies should handle comments and opinions from stakeholders. However, it does not clearly state whether certification bodies are required to engage in proactive and culturally appropriate external consultation with stakeholders as part of the initial assessment and monitoring of certificate holders.

Environmental and social criteria

Strengths

» The standard includes comprehensive requirements on riparian vegetation and buffer zones. The standard specifies that the size of riparian vegetation

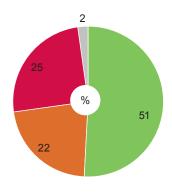
- areas has to be defined and a time-bound plan for restoring riparian areas where vegetation has been removed must be implemented.
- » Requirements on water management are comprehensively covered.
- » There is a detailed requirement about IPM. The standard specifies and requires implementation of an IPM. It also contains detailed requirements for the safe disposal of agrochemical and fertiliser containers.
- » The standard has a precise requirement for **soil management**, which specifies that a soil management plan must be in place.
- » Detailed requirements regarding social and labour conditions, e.g. concerning forced labour, child labour, safe and healthy work conditions, spraying of pesticides and health protection, grievance mechanisms for workers, freedom of association, working hours, remuneration, and discrimination.
- » Key requirements with respect to surrounding communities are covered. Awareness of the social issues in the operating region and active commitment and involvement in promoting social welfare programmes are required.
- » ISCC is one of the few standards which address food security. The standard explicitly prohibits impairing **food security**, but does not specify measures that have to be implemented to mitigate expected impact.

- » A **social and environmental management system** is not explicitly required. While the standard requires an assessment of social and environmental aspects related to the production processes, reporting requirements are not specifically addressed by the standard.
- » There are only limited criteria concerning biodiversity and conservation. There is neither criteria on preventing the violation of habitats, e.g. through land set-asides and corridors for wild flora and fauna, nor on the restriction of invasive species. Furthermore, the criterion on endangered species is not sufficiently detailed.
- » Certain criteria, such as biodiversity assessments and the prohibition of very hazardous agrochemicals are offered as voluntary add-ons in the ISCC Plus, however, the ISCC should also incorporate these into the standard as mandatory requirements.
- » For **GMO materials**, the standard is currently technology neutral, i.e. there is currently no separate chain of custody for non-GMOs.
- » The standard does not contain any criteria on crop rotation/intercropping or detailed requirements regarding topography.
- » The standard does not ban the use of the most hazardous agrochemicals.
- » A criterion on **disciplinary practices** is not included.



4.6 NTA 8080

The NTA certification scheme was developed with multi-stakeholder participation in the Netherlands and is applicable for all types of biomass (solid, liquid, and gaseous), without geographical limitation. It was developed based on Cramer criteria published in 2007. NEN (the Netherlands Standardization Institute) is the independent owner of the certification scheme. The EU RED standard is part of the overall NTA scheme. NTA is the only scheme that does not only cover food, feed, and biomass, but solid biomass as well. <code>www.sustainable-biomass.org</code>



Share of completely fulfilled CAT criteria

- Share of partially fulfilled criteria
- Share of criteria not fulfilled/ no information available
 - Share of non-applicable criteria

COMPREHENSIVE GLOBAL NATIONAL EU RED MULTISTAKE HOLDER

Overall result

- » Although the specified criteria are not always entirely detailed, the standard covers both CAT sections on governance/organisational structure and environmental/social requirements.
- » NTA 8080 is one of the three schemes that have ambitious GHG emissions that go beyond the EU RED threshold.
- » The standard organisation provides substantial informational material on the scheme. However, the documentation on the standard is not publicly available and has to be purchased.

Governance and organisational structure

Strengths

- » Comprehensive information on multi-stakeholder participation in setting and operating standards is provided. Key decision-making bodies are composed of different stakeholder groups and the decision making process is balanced.
- » Partial certification is not possible. When an "NTA 8080 approved" certificate is issued to a company, it comprises all processes within the organisation, e.g. the entire production unit is assessed and not only one particular area.
- » Comprehensive coverage of conformance requirements related to training, audit frequency and sampling is covered.

- » There is no criterion about the written commitment to reduce impacts for standard organisations and members. There is no reference to a written commitment to reduce key environmental and social impacts in the standard's by-laws or any other official documentation.
- » There are weak areas with regard to compliance with regional, national and international laws.
- » The standard is process-oriented, but lacks a monitoring and evaluation system. There is no M&E system in place.

- » There is only limited transparency in the communication of the standard's documents and processes. The text of the standard is not publicly available.
- » National/regional adaptations for global schemes are not available. Regional interpretation documents are not yet available, but are expected to be forthcoming once more experience is gained in the regions concerned.
- » There is a lack of details in the criterion for a grievance mechanism. It is unclear what the deadlines for handling complaints are and if it is possible to forward the complaint to an independent body.
- » There are weaknesses in the **business model**. Financing sources for the NTA 8080 certification system include revenues from licence fees, membership fees and revenues from certificate holders. However, it is difficult to determine how the scheme is going to expand its business activities.
- » There are weak points in terms of accreditation. NEN solely enters into agreements with certification bodies that have an applicable accreditation declaration from an International Accreditation Forum (IAF) or a Mutual Recognition Agreement (MRA) partner.
- » Approved sanctions for certification bodies are not clearly defined. NTA 8080 does not include approval sanctions for certification bodies, but rather relies on accreditation bodies to undertake related tasks.

Environmental and social criteria

Strengths

- » Advanced targets are defined for the minimum threshold for reducing GHG. The standard has its own target for reducing GHG emissions that go beyond the legal minimum defined by the EU RED for bioenergy. NTA 8080 is one of the three standards which contain these advanced targets.
- » Biodiversity assessment and priority habitat conservation are covered. The standard has clear criteria for HCV areas to be identified in dialogue with stakeholders and in specified areas.
- » Key requirements about social groups and surrounding communities are covered. For example, the standard contains a clear requirement to identify local social issues that are not just limited to the production site, and to implement improvement measures. Furthermore, it prescribes the existence of official land use rights as well as consideration of customary law.

- » A social and environmental management system is not explicitly required.
- » There are weaknesses in some of the criteria regarding biodiversity and conservation. There are criteria on endangered species and invasive species, but they are not adequately detailed. For example, with respect to invasive species, although the standard requires taking measures and documenting them,

it does not specify the conditions under which the prohibition or approval or the introduction of non-native, alien species are assessed.

- » For **GMO** materials, the standard is currently technology neutral, i.e. there is currently no separate chain of custody for non-GMOs.
- » The requirement for water management is not covered comprehensively.
 Water availability is not addressed. Criteria on riparian vegetation and run off and leaching is not described in detail. For example, while the standard contains criteria related to risks for ground water and surface water as a consequence of using agrochemicals and other operating processes, it does not explicitly use the terms "run off" or "leaching".
- » Detailed criteria for soil management are limited to soil quality. Crop rotation/intercropping and topography are not covered. Furthermore, criteria about erosion prevention and soil structure are not described in detail.
- » The standard does not explicitly ban the use of the most hazardous agrochemicals. The standard includes a criterion which refers to the Stockholm Convention, but chemicals listed as WHO Class 1A, 1B or 2 or in the Rotterdam Convention are currently not expressly prohibited.
- » Regarding agrochemicals, only documentation and storage are covered. Criteria about IPM and the use and disposal of agrochemicals are not covered. For the use of agrochemicals, the standard specifies that risks to ground water and surface water arising from the use of agrochemicals must be prevented based on experience, but not on the basis of technical requirements. However, the technical requirements are not included in the standard. Furthermore, it does not call for restricting or avoiding the use of chemicals.
- » Not all **labour-related aspects** are covered. No requirements are specified in connection with the spraying of pesticides or health protection, working hours, and remuneration. Furthermore, the standard lacks details with regard to the criteria for safe and healthy work conditions, grievance mechanisms for workers, and discrimination.
- » A grievance mechanism for local communities is not described in detail. The standard includes a criterion on consulting stakeholders, which provides for a grievance procedure that is also reviewed by the certification body during the assessment and stakeholder consultation process. However, it is not entirely clear how the grievance mechanism exactly works.
- » There are weak areas in the criterion for **food security**. According to the standard, effects on and competition with food production have to be prevented and it requires obtaining information about food prices and reporting changes in food prices. However, it does not explicitly require producers to implement countermeasures if food production is affected.

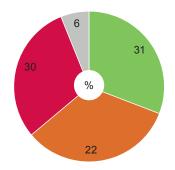
4.7 Greenergy Brazilian Bioethanol verification programme (Greenergy)

Greenergy

The scheme was developed as a management system for the Greenergy company. The standard focuses on sugarcane and the geographical scope of the standard is limited to Brazil. Since the beginning of the verification programme in 2007, Greenergy has been supported by ProForest and an independent consultancy firm. The standard is only open to members of the Greenergy supply chain. www.greenergy.com

Overall result

- » Although the specified criteria are not always entirely detailed, the standard covers both CAT sections on governance/organisational structure and environmental/social requirements.
- » The standard has a focus on biodiversity and conservation, which are important subjects in Brazil, where the standard is applied.
- » The standard includes detailed references to Brazilian laws, regulations and practices.
- » The owner of the Greenergy Standards was very proactive during the preparation of this analysis and has stated it will use the results as a basis for improving the standard.



Share of completely fulfilled CAT criteria

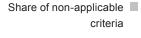
Share of partially fulfilled

criteria

Governance and organisational structure

Strengths

- Share of criteria not fulfilled/ » The standard was ambitiously developed with **involvement** of relevant no information available stakeholders.
 - » Audit frequency and sample size are clearly explained. Audits by certifi-
 - cation bodies are conducted annually.



» There are clear **sanctions** for **certification**. A sanctions mechanism exists for the certification process, including specific timeframes to correct nonconformities.



- » There is no criterion regarding a written commitment to reduce key **environmental and social impacts** for standard organisations and members.
- » There are weak points concerning multi-stakeholder participation in the development process for the standard and the standard system. Limited information is provided about the decision making process and about balanced stakeholder involvement. Stakeholder consultation during the certification and accreditation process is not covered by the standard. There is a lack of details in the criterion on **scientific input**. The description of the scheme states that the RTFO Meta-Standard was utilised as a basis for developing the Greenergy standard, but it does not provide more specific information on the procedure used to develop the Greenergy standard.

- » The standard is process-oriented, but lacks a monitoring and evaluation system. There is no M&E system in place.
- » There is no transparency in public reporting and communication of the standard's documents and processes. None of the key documents are available, e.g. public summary of certification reports, accreditation report, or the by-laws.
- » There is no criterion regarding a grievance mechanism. There is no established complaint procedure for either the certification or standard-setting process.
- » Partial certification is possible.
- » There are weak areas with respect to **training** for auditors and standard users. There are no training courses organised for auditors and users of the standard.
- » Approval sanctions for certification bodies are not covered in the standard. There is no evidence of a sanctions mechanism for certification bodies.

Environmental and social criteria

Strengths

- » The standard contains specific guidelines and references about national laws and regulations on protecting biodiversity and priority habitat conservation. References to national laws and examples of existing systems are provided to facilitate the identification of HCV areas.
- » There are clear criteria on **soil quality and structure**. The standard has detailed criteria for implementing various practices to maintain and improve both soil structure and quality as well as to regularly measure them.
- » **IPM** is explicitly recommended.
- » In contrast to the other schemes in the comparison group (i.e. standards with a national focus and/or company standards), the standard covers a larger number of **social criteria**.

- » A social and environmental management system is not explicitly required. The standard requires environmental impact assessments as well as community engagement with regard to several criteria; however, monitoring and reporting are not specifically required.
- » There is a lack of details as regards the requirements for efficient water use. All the criteria related to water, e.g. riparian vegetation, water availability, water quality, water use as well as run-off and leaching are addressed, but are not described in depth. For example, the standard includes criteria with respect to good water management practices, efficient water use, and improving water quality, however, they are not entirely specific in terms of water draw-off, differentiation between irrigated and rain-fed systems, etc.

- » Use of the most **hazardous agrochemicals** is not banned.
- » Limited criteria are defined for agrochemicals. The use, documentation, storage, and disposal of agrochemicals are not described in detail. For example, the standard specifies that agrochemicals have to be stored in compliance with legal requirements. However, it does not include further requirements in relation to internationally accepted practices for storing agrochemicals and fertilisers.
- **Waste management** is not covered. The standard does not contain criteria on the use of by-products and waste products.
- » Requirements concerning labour-related aspects are not covered comprehensively. The criteria on safe and healthy work conditions and working hours are not adequately detailed. Furthermore, grievance mechanisms for workers and disciplinary practices are not addressed.
- » The requirements regarding surrounding communities are not fully addressed. There are no criteria on social context or welfare and food security. The standard does not have a clear provision requiring a grievance procedure.



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4.8 Red Tractor Farm Assurance Combinable Crops & Sugar Beet System (Red Tractor)

The Red Tractor scheme was set up in 1998 as a food quality scheme and is applicable to farmers in the UK. Crops covered by the scheme include wheat, barley, rye, pulses (legumes), and sugar beet. Red Tractor Assurance, an organisation owned by the entire food industry in the UK, runs the scheme. Red Tractor EU RED is part of the overall scheme. Red Tractor EU RED is only approved for farms in the UK, there is no further supply chain certification and a minimum GHG threshold is also not a component of the approval process. assurance.redtractor.org.uk/rtassurance/global

Overall result

- » Only limited areas of the conformance criteria are covered with regard to the governance/organisational structure requirements.
- » Environmental and social requirements are not comprehensively covered.
- » The standard refers to UK legislation for social and labour requirements.

Governance and organisational structure

Strengths

- » The standard is developed and maintained with scientific and stakeholder
- » Audit frequency and sample size for the certification are clearly explained. Audits by certification bodies are conducted annually.
- » There is a **complaint and grievance** mechanism in place.
- » There is a formal **review of the standard** every 3 years. This is specified in publicly available business plans.

CAT criteria

Share of completely fulfilled

- Share of partially fulfilled
- Share of criteria not fulfilled/ no information available
 - Share of non-applicable criteria

- » There is no criterion regarding a written commitment to reduce key environmental and social impacts for standard organisations and members.
- » There is no criterion with respect to compliance with regional, national and international laws. The standard does not make any reference to compliance with relevant regional, national and international laws.
- » There are weaknesses in terms of **multi-stakeholder participation** in the standard development process and standard system. While the standard publishes the names of the board members, it is unclear to what extent the decision making process is balanced and not biased towards particular major stakeholder groups.
- » The standard is process-oriented, but lacks a monitoring and evaluation system. There is no M&E system in place.
- » There are weak areas as regards transparency in public reporting and

communication of the standard's documents and processes. None of the certification reports, minutes of the board meetings, or guidelines for auditors are publicly available.

- » There are weaknesses in the **business model**. The standard organisation outlines the value proposition of the organisation and the potential benefits for members, but the scheme's vision and mission are not precise enough and it is unclear to what extent activities and necessary resources are defined.
- » Partial certification is possible. The standard does not contain an explicit restriction on partial certification.
- » There are weak points concerning accreditation. Accreditation is undertaken by national accreditation bodies; the accreditation process is not implemented by an accreditation body that is an ISEAL member.
- » **Training courses** for auditors and users of the standard are not offered.
- » Approval sanctions for certification bodies are not covered in the standard.

Environmental and social criteria

Strengths

- » One of the few standards which provide guidelines on **crop rotation** as a measure of soil management.
- » There are clear criteria on documentation, storage and disposal of agrochemicals.
- » Clear criteria about **run offs and leaching** are implemented in the standard.
- » The standard includes criteria regarding the spraying of pesticides and health protection.
- » The only social criterion that is addressed by the standard is the grievance mechanism for local communities.

- » A **social and environmental management system** is not explicitly required. An environmental impact assessment (EIA) is mentioned, but it lacks details, e.g. social and environmental assessment, management programme, community engagement, and monitoring.
- » The standard has references to relevant UK laws related to land set-asides, corridors for wild flora and fauna, and endangered species, but does not specify a requirement in this regard. Invasive species are not addressed in the standard.
- » For **GMO materials**, the standard is currently technology neutral, i.e. there is currently no separate chain of custody for non-GMOs.

- » Limited requirements concerning efficient water use. Riparian vegetation, water availability, water quality, water use and efficiency are not covered by the standard.
- » Soil management is not comprehensively covered. Criteria on soil quality, soil structure and topography are not detailed. For example, although the standard requires a written strategy for conserving organic soil matter and includes references to good practices, it does not call for improvement and/ or does not specify the need for regular measurements. Similarly, while the standard contains requirements for soil structure, it does not provide precise indicators to consider, e.g. size, shape, or soil particles.
- » The requirement for agrochemicals is not comprehensively covered. Use of hazardous agrochemicals is not banned. Furthermore, IPM and documentation of agrochemicals are not addressed in detail. Regarding the documentation, while the standard has a criterion on the documentation of fertilisers and pesticides, it is not clear what kind of information should be documented other than invoices and delivery notes.
- » Most of the labour-related aspects are not covered. No criteria are set with respect to forced labour, child labour, safe and healthy work conditions, grievance procedures for workers, freedom of association, working hours, remuneration, disciplinary practices, and discrimination. Some of the criteria are expected to be covered by the UK legislation.
- » Limited requirements as regards **surrounding communities**. There are no criteria on social context and welfare, land availability and land rights, or cultural heritage. These criteria depend on the coverage in the UK legislation.
- » **Food security** is not addressed by the standard.

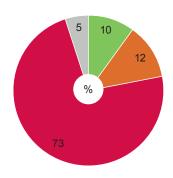


4.9 Scottish Quality Farm Assured Combinable Crops Limited (SQC)

SQC was formed in 1994 and expanded in 2007 to include all producers of combinable crops in Northern Great Britain, with independently audited standards in the area of food quality and security. SQC is a company limited by guarantee and is controlled by a board of directors which represent the Scottish agricultural industry. SQC is approved by the EC for farmers in Northern Great Britain; there is no further supply chain certification and a minimum GHG threshold is also not a component of the approval. www.sqcrops.co.uk

Overall result

- » SQC is audited exclusively via the SFQC.
- » Only limited requirements for governance/organisational structure are covered.
- » Only specific environmental requirements are addressed.
- » There are no detailed requirements regarding social performance such as labour conditions and surrounding communities.



Governance and organisational structure

Strengths

- » The **review process** for the standard (reviewed annually) is clearly defined.
- » The standard includes a requirement about compliance with EU legislation as a prerequisite.
- » Specific **training** is provided by the scheme, especially for users of the standard.

Share of completely fulfilled CAT criteria

- Share of partially fulfilled criteria
- Share of criteria not fulfilled/ no information available
 - Share of non-applicable criteria

- » There is no criterion regarding a **written commitment to reduce key environmental and social impacts** for standard organisations and members.
- » There are weaknesses with respect to multi-stakeholder participation in the standard development process and standard system. Although the standard provides information on the standard development process, decision making procedures are not clearly defined. Furthermore, it is unclear who and which industry sectors are included and how it is ensured that decision-making processes are not biased towards particular major stakeholder groups.
- » There is no transparency in public reporting and communication of the standard's documents and processes. Key documents, such as a public summary of certification reports and the by-laws, are not provided.
- » The standard is process-oriented, but lacks a **monitoring and evaluation system**. There is no M&E system in place.
- » There is no criterion concerning a grievance mechanism. Although the SFQC scheme specifies requirements regarding a complaint procedure, the SQC standard does not contain a grievance mechanism.
- » Partial certification is possible.



- » There are weak points concerning accreditation. SQC is exclusively audited and certified by one certification body, the SFQC. SFQC is accredited under EN/ISOEN45011.
- » There is a lack of details with respect to the **audit process**. Detailed information about the sampling procedure for certification and audit frequency is not provided.
- » Neither sanctions for certifications nor approval sanctions for certification bodies are addressed in the standard.

Environmental and social criteria

Strengths

- » The standard includes requirements related to the documentation, storage and disposal of agrochemicals and fertilisers.
- » The standard specifies requirements regarding the spraying of pesticides and health protection. Sprayers are required to hold external certificates.
- » There is a criterion about run-off in the form of a guideline which states that fertilisers containing organic manure may not be stored within 10m of any surface water or wetland, in order to avoid run-off.

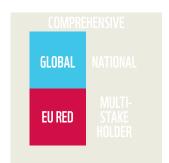
- » A social and environmental management system is not explicitly required.
- » Requirements for **biodiversity** are not comprehensively covered. While there is a criterion concerning endangered species, it is not precisely detailed. Furthermore, biodiversity assessments, priority habitat conservation, land set-asides, and invasive species are not addressed by the standard.
- » For **GMO materials**, the standard is currently technology neutral, i.e. there is currently no separate chain of custody for non-GMOs.
- » Limited requirements for **efficient water use**. The standard does not address leaching. Furthermore, riparian vegetation, water availability, water quality, and water use and efficiency are not covered by the standard.
- » There is no requirement about soil management. The criteria regarding erosion prevention, soil quality, crop rotation/intercropping, soil structure and topography are not covered by the standard.
- » Use of the most hazardous agrochemicals is not banned. While the standard refers to the UK Pesticide Guide and the Chem. Regulation Directorate for approved crop protection products/pesticides, it does not prohibit hazardous agrochemicals.
- » Requirement for agrochemicals are not comprehensively covered. IPM in connection with the use of agrochemicals is not addressed.
- » Waste management is not covered. The standard does not include criteria on the use of by-products and waste products.
- » Labour and social requirements are not addressed in the SQC at all.



9 21 %

Share of completely fulfilled CAT criteria

- Share of partially fulfilled criteria
- Share of criteria not fulfilled/ no information available
 - Share of non-applicable criteria



4.10 Biomass Biofuel, Sustainability Voluntary Scheme (2BSvs)

2BSvs is a French agribusiness initiative which was developed by a consortium of various companies representing different stakeholder groups from the area of biofuel production and the biofuel supply chain. The 2BS Consortium commissions the technical advisor, Bureau Veritas, with the technical management of the scheme. The scheme covers the entire supply chain of the biofuel industry and is globally applicable to any type of biomass and biofuel. <code>swww.2bsvs.org</code>

Overall result

- » The standard was developed with a focus on compliance with the mandatory EU RED requirements. Besides the obligatory EU RED criteria, other requirements are not mandatory and are thus formulated as "should haves" in the standard.
- » Only limited specific environmental requirements are covered in the standard. However, compliance with them is not mandatory.
- » The standard allows desk audits on an individual farm level with a very broadbased risk approach. In practice, farm audits are conducted in risk areas on the basis of desk audits.
- » The technical advisor that runs the standard's day-to-day operations also acts as one of the certification bodies.
- » There are no detailed requirements for social performance, e.g. with regard to labour conditions and surrounding communities.

Governance and organisational structure

Strengths

- » The audit frequency is clearly defined. Audits by certification bodies are conducted annually.
- » The standard has robust procedures and documentation requirements with regard to **traceability**. The system includes clearly described, effective rules to ensure the integrity of the certified material part based on a mass-balance approach.
- » The standard organisation has a **complaint procedure**, which is published on the website. The certification bodies are also required to offer a grievance mechanism.

- » There is no evidence of a written commitment to reduce key environmental and social impacts in the standard's by-laws or any other official documentation.
- » The standard does not include any references to relevant regional, national and international laws.

- » There is only limited information provided about stakeholder participation in the standard development and elaboration process. The documentation provided indicates that not all important groups are represented. There is no information on the robustness and quality of the stakeholder consultation process. Details on decision making and voting procedures are not provided. The possibility for participation does therefore exist, but there is a risk that decision-making processes are biased towards particular interest groups.
- » The standard is process-oriented, but lacks a monitoring and evaluation system. There is no M&E system in place.
- » There are weaknesses as regards transparency in public reporting. Although the website includes a database which lists certified companies, summaries of certification reports with corrective action requests are not provided. Internal governance procedures, the text of the standard, and guidelines for auditors are publicly available. Minutes of board meetings are not accessible to the public.
- » The standard does not have **national/regional interpretations**.
- » Regular **reviews of the standard** are not specified.
- » Partial certification is possible.
- » There are weak points concerning **accreditation**. Accreditation by ISEAL-recognized accreditation bodies is not required.
- » Stakeholder consultation during the certification process is not required by the standard. Training courses for auditors are offered, but they are conducted by the technical advisor, which also acts as the certification body.
- » There are weak areas as regards the **sample size**. According to the minimum required sampling level, 3% of the sample collecting sites have to be verified through on-site audits, which can also be desk audits. The sampling intensity is always lower than the square root of y.
- » Lack of details on sanctions and requirements for certificates and certification bodies. For example, although the standard includes clear processes with regard to handling non-conformities, it does not outline specific timeframes for correcting them.

Environmental and social criteria

Strengths

» The standard covers all **EU RED criteria**. Accordingly, the standard clearly specifies that it does not allow land with high biodiversity value to be converted into land used for the production of biofuels. The standard includes a clearly defined cut-off date after which such conversions are not allowed and therefore cannot be eligible for certification. It prohibits the conversion of high carbon stock areas. To reduce GHG emissions, the standard adopts the threshold of 35% as defined by the EU RED.

- » The standard does not include any criteria related to a social and environmental management system.
- » Regarding biodiversity and conservation, the standard only requires operators to prove that a system has been implemented which informs biomass producers who claim sustainability that the raw materials used for the production of sustainable biofuels do not originate from land that had/had high biodiversity status.
- » The standard does not have any comprehensive requirements about the identification and protection of HCV areas, nor does it mention criteria on biodiversity assessments, buffer zones, corridors for wild flora and fauna, or invasive species. Furthermore, it not include specific requirements for safeguarding endangered species. The standard does not contain clear criteria with respect to prohibiting the introduction of non-native, alien species. It does also not have requirements regarding GMOs.
- » There is only limited coverage of requirements for water. The standard does not include criteria for the definition of riparian vegetation and its restoration, water use and efficiency, or run-off and leaching. Although it considers water scarcity when using water, it does not specifically require water management or provide detailed guidelines. The standard has a requirement about water quality, but it is too general.
- » In terms of **soil conservation**, requirements to prevent erosion are not detailed enough (e.g. there is no mention of accepted practices) and do not specify the need to measure soil loss on a regular basis. For example, the standard includes general requirements on soil protection, but they are vague and do not explicitly address soil quality and soil structure maintenance.
- » There is no mention of crop rotation/intercropping, soil quality, or soil structure in the standard.
- » The standard does not contain any requirement on the use of agrochemicals. Criteria on the use, documentation, storage, and disposal of agrochemicals are not covered. IPM is not required in the standard.
- » It does not include requirements on waste management or use of by-products or waste products.
- » None of the labour-related aspects are covered, e.g. forced labour, child labour, safe and healthy work conditions, spraying of pesticides and health protection, grievance mechanisms for workers, freedom of association, working hours, remuneration, disciplinary practices, and discrimination.
- » There are no requirements on **surrounding communities**, e.g. social context and welfare, land availability and land rights, a grievance mechanism for local communities, cultural heritage, and food security.

4.11 REDcert

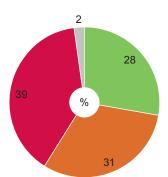


REDcert was founded in 2010 by various associations and organisations in the German agricultural and biofuel sector. It is run by REDcert GmbH, based in Bonn, Germany. The certification system can be applied to all of the steps involved in the process, starting with production and collection of input materials through to processing in oil mills and the production of biofuels and liquid biofuels. The REDcert standard is approved for the European Member States, Ukraine and Belarus.

www.redcert.org

Overall result

- » The standard was developed with a focus on compliance with EU RED requirements.
- » The standard concentrates on Germany and the EU countries and many of its criteria and implementation processes are based on the legal framework of the EU. To expand the standard to non-EU countries (as has already occurred to some extent), it has to improve its performance with regard to internal governance/organisational structure and social/environmental criteria.
- » The standard relies on national and EU legislation for issues related to social and labour performance.



Share of completely fulfilled CAT criteria

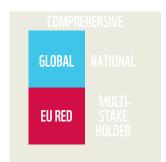
Share of partially fulfilled

criteria

Governance and organisational structure

Strengths

- Share of criteria not fulfilled/ no information available
- - Share of non-applicable criteria
- » REDcert is developed and operated with the aid of scientific input and participation from a limited stakeholder group.
- » There are **national interpretations** for Ukraine and Belarus, which are the only non-EU countries to which the standard applies; the interpretations are available on the Internet.
- » Audit frequency and sample size for certifications are clearly explained, and desk audits can be conducted without visiting the farm itself.
- » The standard has a clear **sanction mechanism for the certification**, including specific timeframes.
- » The standard has robust procedures and documentation requirements with regard to traceability, based on a mass-balance approach.



- » Although the economic operators are expected to accept responsibility and actively encourage and support certified sustainability of biofuels, a written **commitment** is not required.
- » The standard does not refer to compliance with relevant regional, national and international laws.
- » There are weaknesses with respect to multi-stakeholder participation

in the standard development process and system. Various associations and organisations in the German agricultural and biofuel sector are involved in REDcert, however, NGOs are not included in the list of participating stakeholders. There is no information available on how the process for developing the scheme was structured. Although the standard has committees with a list of members, the internal governance of the scheme remains unclear.

- » The standard is process-oriented, but lacks a monitoring and evaluation system. There is no M&E system in place.
- » Transparency in public reporting: No public summary reports or further information on corrective action requests are provided. Minutes of board meetings are not publicly available.
- » The grievance mechanism is unclear. Complaints concerning certificates or actions by certification bodies are immediately forwarded to the relevant certification body, which must have a complaint procedure due to its accreditation. However, this complaint procedure is not made public.
- » Lack of details with regard to regular reviews and revisions of the standard. According to the standard organisation, a committee is in charge of reviewing and revising the REDcert scheme on an annual basis, but no further information is available.
- » The standard does not include any requirements are concerning partial certification, neither with respect to individual agricultural/farm units or groups of companies.
- » Lack of details about **training** for auditors and users of the standard. Since the training system for auditors is based on a "train the trainer" system, there is no mandatory training for all of the auditors involved.
- » REDcert states that the approval of a certification body becomes invalid if it is withdrawn, revoked, or invalidated by the competent authority, or if it expires or ends in some other way. However, procedures and deadlines for correcting non-conformities are not further specified.

Environmental and social criteria

Strengths

- » The standard covers all **EU RED criteria**. The standard clearly specifies that it does not allow land with high biodiversity value to be converted into land used for the production of biofuels. The standard includes a clearly defined cut-off date after which such conversions are not allowed and therefore cannot be eligible for certification. It prohibits the conversion of high carbon stock areas. To reduce GHG emissions, the standard adopts the threshold of 35% as defined by the EU RED.
- » Water management is partly covered. The standard has explicit requirements regarding **run-off and leaching**.
- » Comprehensive requirements are defined for **soil management**. The standard has detailed requirements for implementing various soil erosion preven-

tion methods and for regularly measuring soil loss. It specifies that the organic soil matter levels must be maintained by means of appropriate measures, especially in the case of soil tillage practices.

- » Clear requirements on IPM exist. The standard contains specific requirements to incorporate IPM as part of GAP (good agricultural practices). The standard has detailed requirements on the storage of fertilisers, with inclusion of the regional practices to be observed.
- » Forced labour, child labour and freedom of association are fully covered.

- » The standard does not include criteria related to a social and environmental management system.
- » Weak points were identified in the requirements on specific measures for the protection of biodiversity and conservation. For example, the standard does not explicitly require a biodiversity assessment. There is a lack of detailed information with regard to priority habitat conservation and land set-asides. In addition, the focus is only on "nature conservation" and is not detailed enough. Although the standard has clear criteria on protecting endangered species, it does not explicitly require regulation of inappropriate hunting, fishing, trapping, and collecting, and does not prohibit the exploitation of endangered species for commercial purposes. The standard does not contain criteria on invasive species and GMOs.
- » The standard only partially covers water requirements. For example, it does not explicitly require the establishment of a time-bound plan for restoring riparian areas. Although the standard has requirements about water availability and water quality, they are too vague. Regarding water protection, it does not refer to water use and efficiency.
- » In terms of soil, the standard mentions but does not explicitly require crop rotation as a first go-to option. The standard lacks details with respect to topography.
- » The standard does not ban the use of the most **hazardous agrochemicals**. According to the standard organisation, this criterion is covered by legal requirements. However, the standard is applicable in the EU, Ukraine and Belarus. In Ukraine and Belarus, GAP and cross-compliance requirements do not automatically apply. Therefore, in those countries, the use of hazardous agrochemicals is not restricted by a regulatory framework which also takes international conventions into account. Documentation is required, but it is unclear whether it covers all three aspects (use, handling, and storage) of agrochemicals and fertilisers, and where it can be found.
- » It does not include requirements on waste management or the use of by-products and waste products.
- » Aside from the three mentioned criteria, the standard only covers other social aspects indirectly. Conventions laid down by the ILO are referred to as minimum, but the standard does not provide interpretations and there is a lack of

- clear indicators to take into account. The standard relies on national legal requirements to regulate several social issues.
- » The standard does not cover any criteria in the CAT section on surrounding communities, e.g. social context and welfare, land availability and land rights, grievance mechanisms for local communities, cultural heritage, and food security.

4.12 Abengoa RED Bioenergy Sustainability Assurance (RBSA)

RBSA was developed as a management scheme for the Abengoa company. It is based on other schemes for certifying production sustainability. It focuses on raw materials or production processes in the Abengoa supply chain, under consideration of the requirements in the EU RED. The standard is applicable without geographical restriction and limited to raw materials that Abengoa uses as feedstock for ethanol production. www.abengoabioenergy.com

Overall result

- » The standard was developed with a focus on compliance with EU RED requirements.
- » The standard was developed without stakeholder participation.
- » Only limited criteria are covered with regard to the governance/organisational structure requirements.
- » Only certain environmental requirements are addressed by the standard.
- » There are no detailed requirements for social performance, e.g. with regard to labour conditions and surrounding communities.

Share of completely fulfilled CAT criteria

Share of partially fulfilled

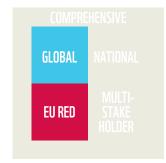
criteria

Governance and organisational structure

Strengths

- » Audit frequency and sample size for certifications are clearly explained.
- Audits by certification bodies are conducted annually.
- Share of criteria not fulfilled/ no information available
- » For a company scheme, the criteria regarding transparency in public **reporting** is comprehensively covered.
- Share of non-applicable criteria

- » There is no evidence of a written commitment to reduce key environmental and social impacts in the standard's by-laws or any other official documentation.
- » The standard does not include any reference to relevant regional, national and international laws.
- » The standard is process-oriented, but lacks a monitoring and evaluation system. There is no M&E system in place.
- » There are no **national/regional interpretations** of the standard.
- » There are weak points with respect to the **grievance mechanism**. The standard prescribes a complaint procedure for certification bodies, but a complaints and appeal process has not been established by the standard organisation.
- » Regular reviews of the standard are not clearly specified. The documentation of the standard does not specifically define the process and frequency for reviewing the standard.



- » Partial certification is possible.
- » There are weak points concerning **accreditation**. The certification bodies are not accredited by an accreditation body that is an ISEAL member.
- » Stakeholder consultation during the certification process is not required by the standard.

Environmental and social criteria

Strengths

» The standard covers all **EU RED criteria**. Accordingly, the standard clearly specifies that it does not allow land with high biodiversity value to be converted into land used for the production of biofuels. The standard includes a clearly defined cut-off date after which such conversions are not allowed and therefore cannot be eligible for certification. It prohibits the conversion of high carbon stock areas. To reduce GHG emissions, the standard adopts the threshold of 35% as defined by the EU RED.

- » A social and environmental management system is not explicitly required.
- » Not all of the criteria on **biodiversity and conservation** are covered in detail. The standard requires the development of a map for determining compliance with biodiversity. However, the RBSA criterion on such a map does not refer to the use of internationally accepted tools. The issue of endangered species is only mentioned as part of the ban on decreasing nature conservation areas. Furthermore, while inappropriate hunting, fishing, trapping, and collecting have to be regulated, the exploitation of endangered species for commercial purposes is not addressed by the standard. The standard does not include criteria on **land set-asides**, **corridors for wild flora and fauna**, **and invasive species**.
- » There are weaknesses in the criteria for handling **GMO materials**. According to the standard organisation, there is no written criterion in the standard. In practice, EU regulations are followed.
- » Requirements on water are not covered. Criteria on riparian vegetation, water availability, water quality, water use and efficiency, and run-off and leaching are not addressed.
- » A requirement on **soil** is not included in the standard. Criteria regarding erosion prevention, soil quality, crop rotation/intercropping, soil structure, and topography are also not covered.
- » The standard does not explicitly ban the use of the most hazardous agrochemicals.
- » Requirements on **agrochemicals** are not covered. Criteria concerning the use, documentation, storage, and disposal of agrochemicals are not covered. Furthermore, **IPM** is not required by the standard.

- » None of labour-related aspects are addressed, e.g. forced labour, child labour, safe and healthy work conditions, spraying of pesticides and health protection, grievance mechanisms for workers, freedom of association, working hours, remuneration, disciplinary practices, and discrimination.
- » The standard does not contain any criteria with respect to social context and welfare, land availability and land rights, grievance mechanisms for local communities, cultural heritage, and food security.



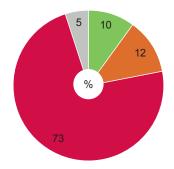
4.13 Ensus Voluntary Scheme under RED for Ensus Bioethanol Production (Ensus)

Ensus was developed as a management scheme for the Ensus company. It is based on other schemes for certifying production sustainability. The scheme applies to feed wheat for the production of ethanol. The geographical scope is primarily UK feedstock, but can also be applicable to feedstock from other EU member states if they can supply wheat under an appropriate voluntary scheme approved by the EC.

http://www.ensusgroup.com/about_us.php

Overall result

- » The standard was developed with a focus on compliance with EU RED requirements.
- » Only limited criteria are covered with regard to the governance/ organisational structure requirements.
- » The standard was developed by Ensus and independent consultants without the participation of stakeholders.
- » The standard does not specify any criteria for environmental aspects.
- » Criteria for social performance, e.g. related to labour conditions and surrounding communities, are not included in the standard.



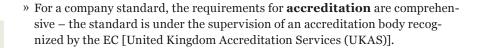
- Share of completely fulfilled CAT criteria
 - Share of partially fulfilled criteria

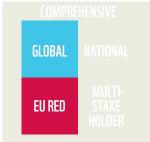
Governance and organisational structure

Share of criteria not fulfilled/ no information available

Strengths

- » Audit frequency is clearly defined by the standard.
- Share of non-applicable criteria
- » A clear sanction mechanism exists for the certification process. A sanction mechanism is required for certifications, including specific time-frames to correct identified non-conformities.





- » There is no evidence of a written commitment to reduce key environmental and social impacts in the standard's by-laws or any other official documentation
- » The standard does not include any reference to relevant regional, national and international laws.
- » The standard is process-oriented, but lacks a monitoring and evaluation system. There is no M&E system in place.
- » There is a lack of transparency with regard to the communication of the standard's documents and processes. The text of the standard is not

publicly available. No documents or information are available, e.g. summary certification reports with corrective action requests, minutes of board meetings, or internal governance information.

- » There are no **national/regional interpretations** of the standard.
- » There are weak points with respect to the **grievance procedure**. The standard does not require a complaint procedure for certifications or for the standard setting process.
- » Regular **reviews of the standard** are not clearly specified.
- » Partial certification is possible.
- » The standard does not require **stakeholder consultation** during the certification process.
- » Training for auditors and users of the standard is not provided for in the scheme.
- » There is a lack of details concerning the **audit sample size**. Although the audit is conducted annually, there is no clear procedure specified for the sampling. A "sampling method" is mentioned, but not described in more detail.

Environmental and social criteria

Strengths

» The standard covers all EU RED criteria. Accordingly, the standard clearly specifies that it does not allow land with high biodiversity value to be converted into land used for the production of biofuels. The standard includes a clearly defined cut-off date after which such conversions are not allowed and therefore cannot be eligible for certification. It prohibits the conversion of high carbon stock areas. To reduce GHG emissions, the standard adopts the threshold of 35% as defined by the EU RED

Weaknesses

» Only the mandatory EU RED requirements are addressed in this standard – it does not include any additional **environmental or social criteria**.

Appendix A: Assessment methodology

Assessment tool

The analysis is based on the evaluation of schemes with a tool developed by WWF, the CAT. It covers two main areas:

- » Development and maintenance of the standard scheme, including governance, standard setting, certification and accreditation; management planning and transparency;
- » Content of the standard with regard to environmental and social sustainability criteria, including legality, tenure and use rights; community relations; workers' rights; water and soil; biodiversity; pollution, waste and greenhouse gasses;

The evaluation of the selected certification schemes is based on 67 questions embedded in the CAT. Comprehensive criteria descriptions of the tool are included in Appendix B.

Consultation with standard organizations

Following the assessment, interviews with representatives of each standard organization were conducted to cross-check and amend data already gathered. Comments received were integrated.

Table: Details of the communication with the standard organizations

Consultation period with all 13 standard organizations	March 11th, 2013 to April 8th, 2013 and from May 30th, 2013 to June 28th, 2013
Consultation methodology	Draft assessment results in a first and second round were sent to the standard organizations via email in advance of the telephone conference. Consultations were held by phone throughout the period indicated above.
Additional feedback received following the consultation	Additional information received from the standard organizations after the consultation was also integrated into the assessment.

Appendix B: Certification Assessment Tool

Detailed criteria and scoring definitions

As described in the chapter 1.3, the CAT was developed by WWF and it covers two main areas; development and maintenance of the standard (Governance requirements) and content of the standard (environmental and social sustainability requirements). The following table provides the details of the criteria and scoring definitions.

SYSTEM requirements

REQUIREMENTS

Compliance with ISEAL's Code of Good Practice for Setting Social and Environmental Standards Guidance: The development of the standard should comply with existing international norms developed by the 2004 ISEAL Code of Good Practice for Setting Social and Environmental Standards (WWF Principles for standard creation # 3). The code sets the rules for legitimate and effective standard-setting processes (i.e., a development process; adoption and revision; and, structure and content of standards that address social and environmental practices). The code can only be adopted in its entirety.

Provision 4.1.1. of the code states that: 'Compliance with the Standard-Setting Code means that the process by which a standard is developed is transparent and effective. Compliance is voluntary for standard-setting organizations that are not members of the ISEAL Alliance.'

Provision 4.1.2. of the code states that: 'claims of compliance with the standard-setting code shall only be made by standard-setting organizations that have been externally evaluated to be in full compliance with the code. External evaluation refers here to organizations that have been assessed through the independent evaluation mechanisms established by ISEAL.'

Green rating: The standard system complies with the ISEAL Code of Good Practice, and this can be checked with ISEAL (http://www.isealalliance.org/our-work/codes-of-good-practice/standard-setting-code).

Yellow rating: The standard system is in the process of being assessed for compliance.

Red rating: The scheme has not been recognized by ISEAL to comply with the code.

Written Commitment to Reduce Impacts

Guidance: The standards should focus on minimizing or eliminating the most important environmental and social negative impacts of the commodity, product or sector and members of the standard system should have a written commitment to adhere to reducing key economic, environmental and social impacts.

Green rating: Written commitment by members to reduce key environmental and social impacts is found in the system's by-laws which are available on the internet It is backed up by a clearly stated mission, vision and set of objectives, as well as a code of conduct to which members must adhere.

Yellow rating: Written commitment by members only relates to environmental issues and does not consider social issues or the commitment by members is not clearly stated in the standard's by-laws or any other official documentation, or is not publicly available.

Red rating: There is no evidence of a written commitment to reduce key environmental and social impacts in the standard's by-laws or any other official documentation.

STANDARD DEVELOPMENT AND OPERATION

Compliance with Regional, National, International Laws

Guidance: The standard should require compliance with all applicable regional and national laws in the country in which operations occur, as well as conventions and international treaties to which the relevant country has signed.

Green rating:

- » The standard has a specific principle/criteria dealing with legal compliance at various levels
- » It includes a list of all relevant laws and international treaties
- » It includes a required system for tracking any changes in the law.

Yellow rating: The standard lacks some of the above related elements or does not include all relevant laws.

Red rating: The standard does not include any reference to compliance with relevant regional, national and international laws.

Multi-Stakeholder Participation in Standard Development Process

Guidance: The creation of the standard involves meaningful opportunities for equitable stakeholder participation from a balanced, diverse group of stakeholders. Note that this question is in general difficult to evaluate, and requires looking at different aspects of stakeholder consultation.

Green rating: Written documents are available on what efforts have been taken to include relevant stakeholders and seek their input at all stages of the standard's development process. Relevant stakeholder groups are defined. Participation and decision-making processes are clearly explained and reflect a balance of interests among interested parties.

Yellow rating: There is not sufficient publicly available documentation to assess the robustness and quality of the stakeholder consultation process. The decision-making process is not clearly defined, or

The decision-making process is not institutional balanced across stakeholder groups. Red rating:

No indication of a multi-stakeholder process for standard-setting and no documentation is publicly available.

Multi-stakeholder Participation in Standard System

Guidance: The governance of the standard system is based on transparent, meaningful and balanced stakeholder participation. Important documents to consult include (i) the standard's by-laws and statutes; and, (ii) a membership list and composition of board of directors or other key decision-making body (to ensure transparent and balanced decision-making procedures (FCAG 3.f).

Decision-making procedures should strive to take into account the range of interests relevant to the subject matter either through consensus or by achieving balanced decision-making (FCAG 3.e).

These procedures do the following:

Ensure that no particular interest group dominates or is dominated in the decision-making process.

Specify a voting system that prevents major environmental, social, or economic interests from being overruled.

Contain a mechanism that prevents decision making in the absence of any representative of one of the major interest groups.

Green rating: The standard's by-laws and information about membership lay out the composition of key decision-making bodies including clear procedures for balanced decision-making as described above.

Yellow rating: Possibilities for participation exist but there is a risk that decision-making processes are biased against particular interest groups.

Red rating: The process is dominated by one major interest group.

Scientific Input

Guidance: The development of the standard principles, criteria and indicators include sound science. It has been developed with, and incorporates ongoing input from, scientists such as a for example through a technical advisory committee. It is updated and/or reconfirmed over time to reflect the newest scientific findings related to the issues the standards address, especially those related to WWF conservation targets.

Green rating:

Multiple scientific experts/bodies are involved and listed as stakeholders in the development and operation of the standard principles and criteria.

Scientists with different fields of expertise of relevance to the standard are engaged in technical committees/experts groups.

Documents and related guidance on the standard's p&c's refer to scientific evidence used to develop the standard and there are processes in places to be able to adapt to new scientific findings (e.g., partnerships/projects with universities and academics; ad-hoc or standard scientific WGs or committees, etc).

Yellow rating: The standard appears to lack technical advise from scientific bodies or there is no documentation of how or if scientific evidence was used in the development of the principles and criteria.

Red rating: No scientific input was used in the standard development process, or during standard operation.

Results-Oriented Performance

Guidance: To assess their contributions to social and environmental impact and to monitor the impact of the certification activities over time, the standard should follow the following steps: identify the impact the standards are seeking to achieve (set targets), define baselines and strategies, choosing indicators and collecting data, conducting regular analysis and reporting of data as well as additional impact evaluations, and setting up feedback loops to improve their standard's content and systems over time.

Green rating: The standard has a M&E system in place to measure progress and assess the economic, environmental and social impacts of the standard's system on a regular basis. The reference document is ISEAL impacts code (2010) which provides requirements and guidance for impacts measurement. (http://www.isealalliance.org/our-work/codes-of-good-practice/impacts-code).

Yellow rating: There is an M&E system in place but it does not address the core issues from the ISEAL impacts code (WWF Principles for Effective Schemes, #3; WWF Principles for Standard Creation, #2; ISEAL Impacts Code).

Red rating: There is no monitoring in place on the standard level.

Transparency in Public Reporting

Guidance: The standard makes its documents publicly available in a timely, predictable and easily accessible manner. Information regarding certification and regular surveillance audits including corrective action requests are publicly available.

Green rating: Public summary reports from certification decisions and surveillance reports (audit reports) are publicly available, easily accessible and searchable. The public summary reports are posted in a timely manner (no later than 90 days after certification decision or audit completion) and contain the following information:

public summary of certification reports with corrective action requests and all follow-up/surveillance reports.

Yellow rating:

not all audit summery reports are publicly available, or do not fully comply with any of the other requirements.

Red rating:

None of the reporting is not publicly available.

Transparency in communication of the standard documents and process

Guidance: The standard makes its documents publicly available, specifying all its requirements related to its governance and operational structure including accreditation process.

Green rating: The following are available in the public domain: principle and criteria and all documents relating the certification and accreditation process by-laws and other documents related to the governance of the system guidance for auditors

Yellow rating: no guidance for auditors

minutes of the board meetings.

no minutes of board meetings

Red rating:

governance and standard not publicly available

National/Regional Adaptations for Global Schemes available

Guidance: In the case of globally operating standards, the system must have effective processes in place to guarantee local relevancy and applicability of the standard. Note this issue is not applicable for national schemes.

Green rating: National/regional interpretations (NIs) are available and in use and they are based on the global p&c's; procedures to endorse national/regional Interpretations are available, and mechanisms and processes are in place to facilitate the harmonization/equivalence of national schemes within the international system.

Yellow rating: National/regional interpretations are partially developed and not yet used, because procedures for development, endorsement and harmonization are incomplete.

Red rating: There is no clear process/procedures for national/regional adaptation.

Complaint and Appeal Mechanisms (Grievance Mechanism)

Guidance: The standard has a mechanism for hearing complaints and resolving conflict at all levels (certification, and standard-setting). That mechanism is accessible to any interested party and publicly available.

Green rating:

The complaints mechanism is published on the website of the standard and also the CBs are required a have a published grievance mechanism It clearly states that the mechanism is available to any interested party.

The procedures provide deadlines for handling complaints.

The procedures include the possibility to forward the complaint to an independent body/person

Yellow rating:

The complaints mechanism exists but is not available on the website, or It is not open to any interested party, or

It does not provide for the possibility to forward the complaint to an independent body No deadlines are fixed for handling complaints.

Red rating:

No complaints mechanism exists either for certification or standard-settings.

Regular Standard Review

Guidance: A standard review process should take place at least every five years. This ensures that the standard is committed to continuous improvement.

Green rating: There are clear provisions for reviewing the standard at least every five years.

Yellow rating: The standard's documentation does not specify clearly the process and frequency of the standard's review.

Red rating: There are no provisions in the standard's documentation for reviewing the standard on a regular basis.

Business Model

Guidance: While there is not a single business model that is right for all standard setting organizations, lessons learning captured by ISEAL shows that business plans should: (i) have a clear vision and mission; (ii) articulate what is the value proposition of the organization; and, (iii) define activities and needed resources. A clear vision for financial growth is crucial to ensure the standard system's independence and ensure it can fully fulfill all the functions required for an effective and credible scheme.

Green rating:

The standards has solid vision and mission statements from which operational objectives can be drawn and tied to the relevant organizational structure

Its value proposition defines the different customer or market segments (including key players, locations, and trends)

The value that is created for the organization's customers or stakeholders has to result in a stable revenue stream

Activities and financial and human resources to create the value are identified, as well as related governance structure and partner networks.

Yellow rating: The standard's business plan is partially developed or not operational because the indicators listed above are only partially met.

Red rating: There is no business plan available.

Partial Certification

Guidance: The certification scheme includes provisions to ensure that a certified company does not sell certified products from a small portion of their holdings, while engaging in unacceptable practices on other, non-certified parts.

Further explanation: Partial certification can be defined on different levels A) company level – all prospective members with economic interests must have demonstrated active commitment to implementing the standard principles and criteria in their operations. It is expected from the standard that producers have a significant part of their production area certified within a reasonable time frame. B) unit level – All fields of a certifying unit have to be comply with the standard principles and criteria, it is not allowed only to certify a certain amount of fields in one unit.

Green rating: The company is required to make a time-bound commitment towards certifying their entire holdings.

Yellow rating: The company is required to commit to stop all 'bad practices' on the entirety of their holdings, including non-certified areas, including no significant conversion in the last five years and a commitment to the core ILO conventions.

Red rating: No requirements made or partial certification on a unit level is allowed.

CONFORMANCE REQUIREMENTS

Accreditation

Guidance: The standard requires independent third-party verification, which includes both third-party CBs to audit the producers as well as third-party accreditation bodies to accredit the CBs (ISO 65 compliance) in accordance with international guidance set by ISEAL (see draft ISEAL Assurance code) or by IAF.

Green rating: CBs are accredited by an accreditation body which is an ISEAL accreditation body member.

Yellow Rating: CBs are accredited by an accreditation body which is member of IAF. Red Rating: There is no accreditation or there is a required accreditation but not mandatory from a AB which is member by ISEAL or IAF.

Stakeholder Consultation in Certification

Guidance: CBs undertake proactive and culturally appropriate external consultation as part of initial assessment and surveillance of certificate holders. Appropriate procedures exist to take stakeholders' comments into account in the decision-making process for certification this means there is a documented procedure how CBs deal with stakeholder comments.

Green rating: these two elements are required and undertaken by the standard organization.

Yellow rating: Only one of the two elements is actually covered by the standard organization.

Red rating: There is no requirement for stakeholder consultation in certification.

Training of Auditors

Guidance: Auditors are regularly trained concerning the standard's requirements, processes, procedures and BMPs that improve the social and environmental performance and ensure the auditors remain up to date on standard and system improvements.

Green rating: The standard has clearly defined requirements for training of auditors (required length, contents and delivery of content) that are regularly offered, either by the standard setting organization or through others, but standard setting organization has ways to control quality of standards.

Yellow rating: Training is offered but no details are provided or trainings are not offered regularly.

Red rating: There is no training sessions organized for auditors.

Training opportunities for standard users

Guidance: The standard offers (either directly or through third parties) regular training opportunities for standard users concerning the standard's requirements, processes, procedures and BMPs that improve social and environmental performance.

Green rating: The standard system offers regular opportunities for training. The quality of the training (required length, specific contents, etc.) is prescribed and controlled by the standard setting organization.

Yellow rating: Training is offered but no details are provided, or trainings are not offered regularly.

Red rating: No training sessions organized for standard users.

Audit Frequency

Guidance: The standard's requirements for frequency of audits are at an acceptable level at a minimum each certificate holder is visited annually. In many systems, group certification is used to accommodate the needs of small producers.

Green rating: Audits by certification bodies are carried out annually.

Yellow rating: The standard system applies frequency for audits of more than 1 year but less than 2 years.

Red rating: Audits are carried out less than every two years.

Audit Sample Size

Guidance: The standard's requirements for farm audit include mandatory farm visits and the sample size for group certification is at an acceptable level. In many systems, group certification is used to accommodate the needs of small producers.

Green rating:

Field audit is mandatory for farm assessments in and outside of group certification Sampling carried out by CBs is only applied under clearly described circumstances (e.g. group management system, robust internal monitoring of group members, eligibility criteria for group membership)

Sampling intensity is at least a sample size of square root of y for initial audit and re-certification and 0.6*square root of y for surveillance audit.

Yellow rating: The standard system applies the possibility for field and desk audits for farm assessment and/ or lower sampling intensity for audits than specified above in the green rating.

Red rating: No procedures exist for sampling or sampling is not restricted to specific situations (e.g. group management system, internal monitoring of group members, and eligibility criteria for group membership).

Sanctions for certifications

Guidance: The scheme sets deadlines for full compliance if certificates are issued under the condition of fulfillment of outstanding non-compliance. The standard includes a sanction mechanism whereby those certified will face more stringent surveillance and potentially suspension/expulsion for failure to comply with the standard's requirements.

Green rating:

Clear sanctions exist for identified non-compliance at the level of audit and certification. Deadlines are set at short time frames (under 3 months) for correction of identified non-conformities.

Yellow rating:

Sanctions exist but do not foresee the suspension or termination of the certification status. Long timeframes (over 3 months) exist for correction of non-conformities.

Red rating:

No sanctions exist, or

No deadlines exist for correction of non-conformities.

Approval sanctions for certification bodies

Guidance: The standard includes a sanction mechanism for CBs whereby those certified will face more stringent surveillance and potentially suspension/expulsion for failure to comply with the standard's requirements.

Green rating:

Clear sanctions exist for identified non-compliance at the level of certification bodies. Deadlines are set at short time frames (under 3 months) for correction of identified non-conformities.

Yellow rating:

Sanctions exist but do not foresee the suspension or termination of the accreditation status. Long timeframes (over 3 months) exist for correction of non-conformities.

Red rating:

No sanctions exist, or

No deadlines exist for correction of non-conformities.

Traceability System

Guidance: The standard has a robust process for 'tracing' the product along the supply chain to ensure truthful claims. For bio-energy the system's requirements and prescribed procedures have to be able to establish and maintain the mass balance between certified and non-certified material.

Green rating: Independent of the applicable supply-chain tracing mechanisms, be it fully segregated, mass balance, book and claim, the system includes clearly described, effective rules to ensure the integrity of the certified material part. It is not sufficient for a standard to refer to these terms without providing specific protocols.

Yellow rating: The documentation on traceability is not detailed and does not specify the protocols to follow and which apply to the various supply chain tracing mechanisms.

Red rating: Documentation and protocols for traceability do not exist.

ENVIRONMENTAL AND SOCIAL REQUIREMENTS

EU RED REQUIREMENTS EU RED ecological Guidance: The standard includes a clear description that it does not allow to convert land criteria with high biodiversity value into land used for production of biofuels. Green rating: The standard clearly states that it is not allowed to convert land with high biodiversity value into land used for production of biofuels in accordance with EU RED requirements. Red rating: No clear description provided. **Cut-off date** Guidance: The standard includes a clearly defined cut-off date after which no conversion is allowed and therefore cannot be eligible for certification. Green rating: Cut-off date in accordance with EU RED requirements. Red rating: No cut-off data provided. **High Carbon Stock** Guidance: The standard prohibits the conversion of high carbon stock areas to establish Areas crops on any part of the production area. High carbon stock areas include forests, grasslands, peat lands, or wetlands. Green rating: The standard explicitly prohibits high carbon stocks area conversion, without exemptions. Yellow rating: The standard prohibits high carbon stocks area conversion but has a provision/mechanism for compensation. Red rating: There is no requirement for prohibiting high carbon stock area conversion. Minimum GHG Guidance: GHG reduction is the most important argument for the increasing use of reduction threshold biofuels. Depending on the commodity, how and where biofuel feedstock are produced the GHG lifecycle of biofuels can differ significantly. In some parts of the world, this is already a legal requirement for the production of bioenergy feedstock, but has not yet been adopted as a requirement for other uses.

by the EU RED for bioenergy).

Red rating: No GHG saving target.

Green rating: The standard adopts the legal minimum threshold (currently 35% as defined

ENVIRONMENTAL AND SOCIAL GOVERNANCE

Social and Environmental Management System (EMS)

Guidance: Certification systems must require the certified operations to go beyond simple compliance to integrate the standard into their management systems and practices.

The standard requires that new projects or infrastructure should establish and maintain a social and environmental management system (EMS) appropriate to the nature, scale and potential risks of the operations and which addresses cumulative and induced effects.

Further explanation: The management system will incorporate the following elements: (i) social and environmental assessment; (ii) management program; (iii) organizational capacity; (iv) training; (v) community engagement; (vi) monitoring; and (vii) reporting. (IFC PS 1). The scope can vary depending on the nature of the project, and its size, location, and stage of development (IFC PS1.8). Where the firm identifies specific environmental and social risks, an action plan should be developed (IFC PS 1.16). The scope of the EMS and related action plan should also include (viii) local economic, environmental, and social impacts on local communities (IFC PS 4) and (ix) an assessment of primary ecosystem functions, with a plan to maintain or ideally enhance over time.

Green rating: At least 6 of the 9 key elements mentioned above are addressed and fulfilled including (i) social and environmental assessment, (ii) management program, (v) community engagement, (vi) monitoring and (vii) reporting.

Yellow rating: The management system includes elements (i) social and environmental assessment, (ii) management program, (v) community engagement, (vi) monitoring addressed and fulfilled.

Red rating: Less than 4 of the 9 key elements or elements (i) social and environmental assessment, (ii) management program, (v) community engagement, (vi) monitoring are not addressed and fulfilled

BIODIVERSITY AND CONSERVATION

Biodiversity Assessment

Guidance: The standard requires a sound biodiversity assessment prior to conversion for all land types (e.g. peat land, primary and secondary forest, grassland, marsh etc.). The assessment has to be undertaken by an internationally recognized assessor.

Green rating: Sound biodiversity assessment required using internationally recognized tools/protocols.

Yellow rating: An assessment is required but it not sufficiently clear and/or does not require the use of internationally recognized tools/protocols for performing the assessment.

Red rating: No biodiversity assessment explicitly required by the standard.

Priority Habitat Conservation

Guidance: The standard does not allow for loss and/or degradation of priority habitat, species, or ecosystems.

Further explanation: While high conservation value (HCV) is the preferred designation, alternate designation systems can currently earn a yellow rating and might include legally protected areas, biodiversity hot spots, UNESCO World Heritage sites, Ramsar sites, IUCN Protected Areas Types 1&2, Alliance for Zero Extinction sites, area with conservation values of local, regional, or global importance, etc.

Green rating: The standard has clear requirements for HCV areas to be identified and protected. For ecosystems for which there is no HCV assessment is available a similarly exhaustive, alternative approach is chosen for the assessment.

Yellow rating: The standard uses different systems for identifying high priority areas/ species (which cannot be converted and/or degraded) with a less exhaustive and credible approach than the HCV approach/assessment.

Red rating: The standard does not explicitly prohibit the conversion and/or degradation of priority areas/species.

Buffer zones, wildlife corridors

Guidance: The standard requires that land set asides and wildlife corridors in accordance with legal requirements and local conditions such as region, type of terrain, wildlife and agricultural practices are maintained or rebuild. These are often referred to as "set asides" and aim to provide continuous habitat for wildlife and to mitigate the impacts of drift. Further explanation: 'Land set asides' can be part of legal compliance. In those places where not legally required, characteristics such as HCV, riparian, slope, poor soils, community, should be criteria for set asides.

Green rating: There is a clear requirement for maintaining or rebuild of land set asides and wildlife corridors for both legal compliance and compliance with other criteria in the absence of legal requirements.

Yellow rating: Set-aside requirements (buffer zones and wildlife corridors) do not mention what needs to be done if not legally required.

Red rating: No reference to set-asides (buffer zones and wildlife corridors).

Endangered Species

Guidance: Safeguards to protect threatened and endangered species and their habitats (e.g. nesting and feeding areas) are in place: (i) conservation zones or protection areas are established (appropriate to the scale and intensity of establishment); (ii) inappropriate hunting, fishing, trapping, and collecting are controlled; and, (iii) endangered species are not exploited for commercial purposes.

Green rating: All 3 indicators listed above are required by the standard to protect threatened and endangered species and their habitats.

Yellow rating: 1-2 indicators mentioned above are listed by the standard.

Red rating: There is no requirement to protect threatened and endangered species and their habitats.

Invasive Species

Guidance: The standard prohibits any deliberate introduction of alien species (not currently established in the country or region of the project) with a high risk of invasive behavior or any known invasive species, and will exercise diligence to prevent accidental or unintended introductions (IFC PS 6.13).

Green rating: the standard prohibits the introduction of alien species and/or the standard allows for introduction in accordance with existing regulatory frameworks for such introduction (if such a framework is present), or subject to a risk assessment to determine the potential for invasive behavior (as part of the Social and Environmental Assessment).

Yellow rating: the standard does not specify the conditions under which the prohibition or approval regarding the introduction of alien species are assessed.

Red rating: no mention of introduction of alien species.

Genetically Modified Organisms & Segregated Supply Chains

Guidance: If a standard's feedstock uses or has the potential to use genetically modified organisms, a segregated supply chain for non-GMO certification must be available. A standard should advise if GMOs are available for the feedstock(s) the standard uses.

Green rating: No GMO available for the feedstock(s) used in the standard or where GMOs exist, the standard offers a segregated non-GMO supply-chain.

Yellow rating: Non-GMO supply-chain exists, but is not implemented.

Red rating: There is no separate chain of custody for non-GMO and the feedstock(s) are known to use GMO.

WATER

Riparian Vegetation Defined and Restored

Guidance: The standard requires that: (i) the size of riparian vegetation sections is defined according to the region, type of terrain, wildlife and agricultural practices used; and, (ii) a plan with a timetable for restoration of riparian area

Green rating: Both indicators are met by the standard.

Yellow rating: One of the indicators mentioned above are addressed by the standard.

Red rating: There is no reference to riparian vegetation.

Water availability

Guidance: At a minimum, the standard requires that surface and groundwater withdrawals do not exceed the natural recharge of the ground freshwater system. In addition, the standard requires that surface and ground water extraction takes into account: (i) basin stress (ii) aquatic eco-systems; (iii) other users (including downstream users) of the water resource; and, (iv) requests the application of water saving irrigation technologies.

Green rating: The standard has provisions about good water management practices for (i) groundwater withdrawals; (ii) surface water extraction covering both irrigated and rain-fed cultivation and (iii) crop cultivation with a high demand of water only in region/basin which does not have water scarcity or stress.

Yellow rating: The standard's provisions for good water management are partial (e.g. no mention of groundwater; no differentiation between irrigated and rain-fed systems, e.g.).

Red rating: There are no requirements on water availability.

Water Quality Improved

Guidance: The standard requires water quality to be maintained or improved for example: a water management plan is implemented, wastewater treatment installations are installed where necessary, and monitoring of effluent biochemical oxygen demand (BOD) is performed regularly. This list of indicators is not comprehensive.

Green rating: The standard has detailed provisions for maintaining and improving water quality (as per indicative list above).

Yellow rating: Provisions to maintain and improve water quality are not detailed enough and do not emphasize the importance of improving the quality of water.

Red rating: There is no mention of water quality and related requirements for maintaining it.

Water Use and Efficiency

Guidance: The standard requires producers to use water efficiently, to reduce the amount of water which is used and/or wasted during production processes.

Green rating: There is an explicit requirement for reducing water use and pollution at production level.

Yellow rating: The requirements focus on reducing water use and lack provisions for decreasing of water pollution.

Red rating: There is no mention of water use and related efficiency requirements.

Run-off and Leaching

Guidance: The standard requires producers to avoid run-off and leaching of chemicals, fertilizers or other hazardous substances into streams and groundwater.

Green rating: The standard has explicit requirements for run-off and leaching.

Yellow rating: The standard addresses one but not both.

Red rating: There is no explicit requirement on run-off or leaching.

SOIL

Erosion Prevention

Guidance: The standard requires the producer (i) to implement erosion prevention practices such as zero or no-tillage, conservation tillage, and minimum tillage systems, use of cover crops, crop rotation, direct planting, terracing, contour planting, tree hedges, etc.; and, (ii) to conduct annual measurements of soil loss.

Green rating: The standard has detailed requirements for implementing various soil erosion prevention practices, and for regularly measuring soil loss.

Yellow rating: Requirements to prevent erosion are not detailed enough (e.g., no mention of recognized practices) or do not specify the need to measure soil loss regularly.

Red rating: There is no reference to soil erosion.

Soil Quality

Guidance: The standard requires the producer to maintain and ideally enhance soil quality (microorganisms, pH, salinity, nutrient balance, etc.) over time. Nutrients/fertilizers are applied to soil on the basis of crop and soil needs; annual measurements of soil organic matter, N/P/K balance, pH in top soil, soil salts content.

Green rating: The standard has detailed requirements for implementing various measures to maintain and improve soil quality and to regularly measure it.

Yellow rating: Requirements to maintain soil quality are not detailed enough (e.g. no mention of recognized practices) and do not call for improvement and/or do not specify the need for regular measurement.

Red rating: There is no reference to soil quality maintenance.

Crop Rotation/Intercropping

Guidance: Where applicable, the standard requires or facilitates crop rotation/intercropping. Note: For perennial crops, such as palm oil, where crop rotation is not applicable, intercropping should be applied.

Green rating: The standard has explicit reference to crop rotation/intercropping.

Yellow rating: The standard mentions but does not explicitly require crop rotation as a first go option where relevant.

Red rating: There is no mention of crop rotation/intercropping.

Soil Structure

Guidance: The standard requires the producer to maintain and ideally enhance soil structure (e.g. size, shape, and stability of soil particles and pores) over time. There are clear guidelines and measurements to prevent soil compaction in and to measure soil structure.

Green rating: The standard has detailed requirements for implementing various practices to maintain and improve soil structure and to regularly measure it.

Yellow rating: Requirements to maintain soil structure are not detailed enough (e.g. no mention of recognized practices) or do not call for improvement and/or do not specify the need for regular measurement.

Red rating: There is no reference to soil structure.

Topography

Guidance: The standard requires the producer to consider topographical characteristics in order to minimize soil erosion, water runoff, mechanized harvesting limitations, and other issues (World Bank/WWF Biofuels Sustainability Environmental Scorecard). A topographical map of the affected area is required; topographical considerations are included in standard's Principles & Criteria.

Green rating: The standard has detailed requirements about topography.

Yellow rating: Requirements about topography are not detailed enough (e.g., no mention of recognized practices).

Red rating: There is no reference to topography.

AGROCHEMICALS

Integrated Pest Management

Guidance: The standard requires the producer to implement an integrated pest management (IPM) system that encourages natural pest control mechanisms and emphasizes the growth of a healthy crop with the least possible disruption to agro-ecosystems.

Green rating: The standard specifies and requires implementation of an IPM system, which promotes natural pest control mechanisms and which ensures rationale and safe use and handling of synthetic pesticides. By rational, we mean that the decision for use is made by trained and qualified technical people and that the pesticides being used are appropriate for that use.

Yellow rating: The standard specifies implementation of an IPM system but requirements are not detailed enough to ensure a rationale and safe use and handling of pesticides as defined above.

Red rating: There is no requirement for IPM.

Hazardous Agrochemicals Restriction

Guidance: The standard explicitly restricts the use of the most hazardous agrochemicals (WHO Class 1A, 1B und 2; Stockholm and Rotterdam Conventions) (IFC PS 3.15), as well as other very toxic pesticide used for specific crops.

Green rating: Standards include an explicitly ban on WHO Class 1A, 1B and 2 and those listed in the Stockholm and Rotterdam Conventions and require producers to minimize and actively seek alternatives through a time-bound plan for phasing out other hazardous chemicals.

Yellow rating: Standards require producers to minimize and actively seek alternatives through a time-bound plan for phasing out hazardous chemicals but don't explicitly ban the WHO Class 1A, 1B and 2 and those listed in the Stockholm and Rotterdam Conventions.

Red rating: Standards do not restrict hazardous agrochemicals.

Agrochemical and Fertilizer Application

Guidance: The standard requires that the application of agrochemicals and fertilizers is based on technical criteria around plant and soil requirements, and the producer aims to restrict and/or avoid their use.

Green rating: There are technically-based requirements for sound application of agrochemicals and fertilizers and clear requirements for ensuring that they are restricted and/or avoided.

Yellow rating: Requirements are unclear and do not call for restricting and avoiding their use.

Red rating: There is no requirement on the application of agrochemical and fertilizer use.

Agrochemical and Fertilizer Documentation

Guidance: The standard requires producers to document the application, handling, and storage of all agrochemicals and fertilizers.

Green rating: Documentation is required for application, handling and storage.

Yellow rating: Documentation is required but unclear whether it covers all three aspects (application, handling and storage) and where it can be found.

Red rating: There is no requirement to document the use, handling and storage of agrochemicals and fertilizers.

Agrochemical and Fertilizer Storage

Guidance: The standard requires producers to implement good practices with regards to the storage of agrochemicals and fertilizers.

Green rating: The standard has detailed requirements about internationally recognized practices for storage of agrochemicals and fertilizers.

Yellow rating: Requirements are unclear and do not mention recognized international good practices for storage.

Red rating: There is no requirement about storing agrochemicals and fertilizers.

Agrochemical and Fertilizer Disposal

Guidance: The standard requires producers to implement internationally recognized good practices with regards to the disposal of agrochemicals and fertilizers that includes the removal and ideally recycling of empty containers and the education of workers and adjacent communities about the risks of reusing empty containers.

Green rating: The standard has detailed requirements for implementation of good practices for disposal of agrochemicals and fertilizers.

Yellow rating: Requirements are unclear and do not mention recognized good practices.

Red rating: There is no requirement about disposal of agrochemicals and fertilizers.

GREENHOUSE GAS EMISSIONS

Greenhouse Gas Emissions reduction (beyond the RED GHG criteria) Guidance: The standard requires the producer to monitor and reduce emissions (and/ or increase sequestration of GHGs) at the farm/facility level as an overall monitoring goal (apart from legal required minimum threshold of the EU RED).

Green rating: The standard has strong requirements for monitoring and reducing GHG emissions using recognized techniques and practices that are documented and set a minimum target which is higher than the EU RED target.

Yellow rating: Requirements for GHG emissions are not detailed enough and do not ask for related documentation on practices and techniques used don't set an ambitious target.

Red rating: There is no requirement for GHG emissions reductions apart EU RED threshold.

WASTE MANAGEMENT

Waste management

Guidance: The standard requires the producer to evaluate and utilize by-products and waste products on safe and environmentally benign way. This could be electricity generation, organic matter for crops, or other productive uses (World Bank/WWF Biofuels Sustainability Environmental Scorecard) but also waste disposal requirements.

Green rating: The standard has an explicit requirement for evaluating and utilizing by-products and waste products.

Yellow rating: The standard has unclear or partial requirements for by-products and waste products.

Red rating: There is no requirement for use of by-products and waste products.

SOCIAL LABOR Forced Labour

Guidance: The standard prohibits the use of forced or compulsory labour, nor shall any part of personnel's pay, benefits, property, or documents be withheld to force personnel to continue working (SA 8000).

Green rating: Clear requirement in standard.

Yellow rating: Stated and international conventions are referred, but insufficient interpretations or lack of indicators to take into account.

Red rating: No information provided.

Child Labour

Guidance: The standard prohibits the use of child labour (except on family farms under adult supervision, and without interfering with educational programs). Children cannot be exposed to hazardous work conditions (IFC PS 2.14, 2.18; SA 8000).

Green rating: Clear requirement in standard and audit guidelines.

Yellow rating: Stated, but insufficient, and/or unclear in audit guidelines or only indirectly addressed through other references.

Red rating: No information provided.

Safe and Healthy Work Conditions

Guidance: The standard requires the producer to take steps to prevent potential accidents and injury to workers' health by minimizing the causes of hazards inherent in the workplace environment (SA 8000).

Green rating: Clear requirement in standard.

Yellow rating: Stated and international conventions are referred, but insufficient interpretations or lack of indicators to take into account.

Red rating: No information provided.

Spraying of Pesticides and Health Protection

Guidance: The standard requires producers (and their affected employees) to apply safe spraying techniques, to use appropriate equipment as well as sufficient protective clothing for operator safety relative to the applied pesticide and the application of equipment used.

Green rating: Clear requirement in standard.

Yellow rating: Stated and international conventions are referred, but insufficient interpretations or lack of indicators to take into account.

Red rating: No information provided.

Grievance Mechanisms for Workers

Guidance: The standard requires an agreed-upon mechanism for expression of grievances between workers and owners (IFC PS 1 & 2).

Green rating: Clear requirement in standard and audit.

Yellow rating: Stated, but insufficient, and/or unclear in audit guidelines or only indirectly addressed through other references.

Red rating: No information provided.

Freedom of	Guidance: The standard requires that all personnel have the right to form, join, and		
Association	organize trade unions of their choice and to bargain collectively on their behalf with the company (SA 8000, IFC PS 2.9-2.10).		
	Green rating: Clear requirement in standard and audit guidelines.		
	Yellow rating: Stated, but insufficient, and/or unclear in audit guidelines or only indirectly addressed through other references.		
	Red rating: No information provided.		
Working Hours	Guidance: The standard requires the producer to comply with applicable laws and industry standards regarding working hours and public holidays.		
	Green rating: Clear requirement in standard and audit guidelines.		
	Yellow rating: Stated, but insufficient, and/or unclear in audit guidelines or only indirectly addressed through other references.		
	Red rating: No information provided.		
Remuneration	Guidance: The standard requires the producer to provide a living wage (sufficient to meet the basic needs of personnel and to provide some discretionary income) to all personnel and to ensure that wages paid for a normal work week always meet at least legal or industry minimum standards (SA 8000).		
	Green rating: Clear requirement in standard.		
	Yellow rating: Stated and international conventions are referred, but insufficient interpretations or lack of indicators to take into account.		
	Red rating: No information provided.		
Disciplinary Practices	Guidance: The standard requires the producer to treat all personnel with dignity and respect and to avoid use of physical or verbal abuse (SA 8000).		
	Green rating: Clear requirement in standard and audit.		
	Yellow rating: Stated, but insufficient, and/or unclear in audit or indirectly addressed through other references.		
	Red rating: No information provided.		
Discrimination	Guidance: The standard prohibits the producer from making employment decisions on the basis of personal characteristics unrelated to inherent job requirements (SA 8000).		
	Green rating: Clear requirement in standard.		
	Yellow rating: Stated and international conventions are referred, but insufficient interpretations or lack of indicators to take into account.		
	Red rating: No information provided.		

SOCIAL-SURROUNDING COMMUNITIES

Social Context and Welfare

Guidance: The standard requires that certified entities are aware of social issues in their region and are actively engaged in promoting specific welfare programs (SA 8000).

Green rating: The standard requirements are clear and fully comply with the criteria summarized above and listed in SA 8000.

Yellow rating: The standard requirements do not entirely comply with all listed requirements or insufficient interpretations.

Red rating: The standard makes no provisions.

Land Availability and Rights

Guidance: The standard requires that producers may only use land for its production purposes if they have the official right to do so (i.e. they possess a land title) and their operations respect traditional rights including those of local and indigenous communities.

Green rating: The standard clearly requires that producers have the official right to use the land and that this is not in violation of traditional rights of local and indigenous communities and requires 'free and prior and informed consent'.

Yellow rating: The standard is not explicit enough, i.e. it lack reference to respect of local and traditional rights.

Red rating: The standard has no explicit requirement for producers' official right to use the land.

Grievance mechanisms for Local Communities

Guidance: The standard requires producers to have a fair and transparent method for dispute resolution with local communities to ensure that the rights of local communities are protected.

Green rating: The standard requires for new projects or activities that affected local communities must be publically announced PRIOR to their implementation and offer a clear and accessible (considering language, technological and monetary barriers) grievance mechanism available to local communities. Where the project poses risks to or adverse impacts on the health and safety of affected communities, the producer will disclose the Action Plan and any other relevant project-related information to enable the affected communities and relevant government agencies to understand these risks and impacts PRIOR to implementation, and will engage the affected communities and agencies on an ongoing basis.

Yellow rating: The standard includes a grievance mechanism for local communities, but does not include a mechanism to pro-actively prevent grievances or lacking key elements, such as accessibility or processes to ensure ongoing engagement.

Red rating: The standard has no publicly available grievance mechanism.

Cultural Heritage

Guidance: The standard requires the producer to assess potential impacts on and respect cultural heritage (such as tangible property and sites having archaeological, historical, cultural, artistic, and religious values, as well as intangible forms of culture such as cultural knowledge, innovations, and practices embodying traditional lifestyles) (IFC PS 8).

Green rating: The standard requires the producer to pro-actively assess and prevent potential impacts on cultural heritage and includes processes to assess impact on cultural heritage and if required mitigation action.

Yellow rating: The standard includes reference to the maintenance of cultural heritage, but does not include requirements or processes to asses and if necessary mitigate.

Red rating: The standard does not include provisions to maintain, assess or mitigate potential negative impact on cultural heritage.

Food Security

Guidance: The standard requires the producer (or other commissioned group) to review of the issue of food displacement. The review should find no obvious linkages between the establishment of the crop in question and negative impacts on the availability of local or regional food requirements (World Bank/WWF Biofuels Environmental Sustainability Scorecard).

Green rating: Producers need to assess if they operate in food insecure areas (for example by using the Global Hunger Index Map; http://www.ifpri.org/tools/2011-ghi-map). Where impacts are expected producers are required to implement mitigation measures.

Yellow rating: Unclear requirements.

Red rating: No requirement.

Sources

- 1) CAT Tool Glossary
- 2) ISEAL: Setting Social and Environmental Standards v5.o.: http://www.isealalliance.org/our-work/codes-of-good-practice/standard-setting-code; 04.07.2013
- $3/9) \ http://ec.europa.eu/energy/renewables/biofuels/sustainability_schemes_en.htm; 16.06.2013$
- 4) Machbarkeitsstudie: Ein Standard für die Standards; Nachhaltigkeitsstandards für Agrarrohstoffe Juli 2012; WWF Deutschland
- 5/17) Performance Standards on Environmental and Social Sustainability; IFC International Finance Cooperation; World Bank Group; January 1, 2012: http://www.ifc.org/wps/wcm/connect/115482804a0255d-b96fbffd1a5d13d27/PS_English_2012_Full-Document.pdf?MOD=AJPERES
- 6) http://www.isealalliance.org/our-work/codes-of-good-practice/impacts-code.; 04.07.2013
- 7/16) Recognition of private certification Systems for public regulation Lessons learned from the Renewable Energy Directive; veröffentlicht von der Deutschen Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. April 2013
- 8) Richtlinie 2009/28/EG http://europa.eu/legislation_summaries/energy/renewable_energy/enooo9_de.htm (Stand: 8. Mai 2013)
- 10) Strategic Inter-Task Study: Monitoring Sustainability Certification of Bioenergy: A cooperation between IEA Bioenergy Task 40, Task 43 and Task 38. Task 2: Survey on governance and certification of sustainable biomass and bioenergy; A study commissioned by IEA Bioenergy; Nov 2012
- 11) www.redcert.de
- 12) www.iscc-system.org
- 14/15) ISEAL Code of Good Practice for Setting Social and Environmental Standards: http://www.isealalli-ance.org/our-work/codes-of-good-practice/standard-setting-code

Footnotes

- Definition by WWF International Standard & Certification working group
- 2 ISEAL: Code of Good Practice for Setting Social and Environmental Standards v5.0
- ISCC (International Sustainability and Carbon Certification), Bonsucro EU, RTRS EU RED (Roundtable in Responsible Soy EU RED), RSB EU RED (Roundtable of Sustainable Biofuels EU RED), 2BSvs (Biomass Biofuels Voluntary Scheme), RBSA (Abengoa RED Bioenergy Sustainability Assurance), Greenergy (Greenergy Brazilian Bioethanol Verification Programme) and Ensus Voluntary Scheme under RED for Ensus Bioethanol Production, Red Tractor (Red Tractor Farm Assurance Combinable Crops & Sugar Beet Scheme), SQC (Scottish Quality Farm Assured Combinable Crops (SQC) scheme), Red Cert, NTA 8080, RSPO RED (Roundtable on Sustainable Palm Oil RED).
- 4 Machbarkeitsstudie: Ein Standard für die Standards; July 2012; WWF Deutschland.
- 5/17 The social and environmental management system should incorporate the following elements: (i) social and environmental assessment; (ii) management programme; (iii) organisational capacity/personnel resources; (iv) training; (v) community engagement; (vi) monitoring; and (vii) reporting. (IFC PS 1). The scope can vary depending on the nature of the project, and its size, location, and stage of development (IFC
 - can vary depending on the nature of the project, and its size, location, and stage of development (IFC PS1.8). Where the firm identifies specific environmental and social risks, an action plan should be developed (IFC PS 1.16). The scope of the EMS and related action plan should also include (viii) local economic, environmental, and social impacts on local communities (IFC PS 4) and (ix) an assessment of primary ecosystem functions, with a long-term plan to maintain or ideally enhance them over time.
- 6 www.isealalliance.org/our-work/codes-of-good-practice/impacts-code.
- Recognition of private certification systems for public regulation Lessons learned from the Renewable Energy Directive; published by Deutschen Gesellschaft für Internationale Zusammenarbeit (GIZ/German Association for International Cooperation) GmbH. April 2013
- 8 http://europa.eu/legislation_summaries/energy/renewable_energy/enooo9_de.htm (as of 8 May, 2013)
- ISCC (International Sustainability and Carbon Certification), Bonsucro EU, RTRS EU RED (Roundtable in Responsible Soy EU RED), RSB EU RED (Roundtable of Sustainable Biofuels EU RED), 2BSvs (Biomass Biofuels Voluntary Scheme), RBSA (Abengoa RED Bioenergy Sustainability Assurance), Greenergy (Greenergy Brazilian Bioethanol Verification Programme) and Ensus Voluntary Scheme under RED for Ensus Bioethanol Production, Red Tractor (Red Tractor Farm Assurance Combinable Crops & Sugar Beet Scheme), SQC (Scottish Quality Farm Assured Combinable Crops (SQC) scheme), Red Cert, NTA 8080, RSPO RED (Roundtable on Sustainable Palm Oil RED).
- Strategic Inter-Task Study: Monitoring Sustainability Certification of Bioenergy. A cooperation between IEA Bioenergy Task 40, Task 43 and Task 38.
- 11 REDcert is approved for the EU member states and Ukraine and Belarus therefore REDcert is clustered in the global group.
- ISCC is categorised as a multi-stakeholder scheme here but at present, only one NGO is member of ISCC. There are more NGOs working in technical committees without being a member, but in comparison to other multi-stakeholder schemes, there is very little NGO involvement in ISCC.

- 13 Greenergy was developed as company scheme with involvement from ProForest, WWF Brazil and other stakeholders.
- 14 ISEAL Code of Good Practice for Setting Social and Environmental Standards: http://www.isealalliance.org/our-work/codes-of-good-practice/standard-setting-code
- 15 http://www.isealalliance.org/
- Hazardous agrochemicals (WHO Classes 1A, 1B; those listed in the Stockholm and Rotterdam Conventions) (IFC PS 3.15), as well as other highly toxic pesticides used for certain crops.



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