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ANNEX I: Commodity-based VSIs

1.1 The Common Code for the Coffee Community (4C Association)

Overview: The 4C Association was set up in 2003 with support from the German Ministry for Economic Cooperation and Development (BMZ), the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), and the German Coffee Association (DKV).¹ Shortly after, the Swiss State Secretariat for Economic Affairs (SECO), the British Development Cooperation and the European Coffee Federation (ECF) joined the project. Sales of 4C Compliance Coffee began in 2007, and to date the 4C Association has over 310 members including coffee farmers, traders, industry players (roasters, retailers), civil society (NGOs) and individuals. 4C has attracted commitments from large corporations such as Nestlé and Kraft.

Objective: The 4C Association works to achieve 100% coffee sector compliance with at least baseline sustainability standards. 4C provides producer groups (4C Units) with licenses to sell 4C Compliant Coffee in an effort to improve the economic, social and environmental conditions of coffee production by holding those units accountable to baseline sustainability standards.

Commodity: Coffee

Registry: <http://www.4c-coffeeassociation.org/members/verified-producer-groups.html#2>

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity	4C Units can be established at any level of a chain in a producing country: producer, transporter, collector/warehouse, mill/processor, trader/exporter, roaster or retailer. ²
Environmental Targets	<p>4C's Code of Conduct contains a list of 10 unacceptable practices. Unacceptable practice 8 prohibits the cutting of primary forest or destruction of other forms of natural resources that are designated by national and/or international legislation, primary forest cutting and the destruction of other natural resources within protected areas.³ It applies to primary forest and protected areas within 4C Units.</p> <p>An Optional Climate Module was piloted in Kenya and is planned for future integration as an optional add-on Module of the Climate Code.⁴ This Module would have four main components (enabling environment, natural resource management, soil and crop management, and energy, GHG and carbon stocks), and provide sensitization and training for producers and verifiers, verification instruments and a climate database. The Climate Module would add principles on degraded agricultural land, sustainable forest management practices, carbon sequestration and GHG emissions.</p> <p>To help meet environmental targets, 4C provides the following guidance documents:</p>

¹ 4C Association Website: Who we are, History. Available at <http://www.4c-coffeeassociation.org/about-us/history.html#2>.

² 4C Association Guidance for 4C Units. 2013.

³ 4C Code of Conduct

⁴ Linne, K. 4C Climate Code: additional, verifiable and voluntary. GIZ, 2011.

- The 4C Code of Conduct outlines the indicators of unacceptable practices as well as the specific criteria for a 4C Unit to receive a green, yellow or red classification of each principle.⁵ (e.g., land use maps of farms and entire unit (green), no land use maps but plans for development (yellow), or no awareness of biodiversity (red)).
- 4C provides a Code of Conduct Illustrated Guide, which states the “problem” and “how to solve it” for each principle.⁶ For the conservation of biodiversity, this guide lists the problem of clearing native species and forest coffee disrupting the ecological balance of farms and gives guidance on solving this problem by maintaining forest cover and native species on key areas of the farm.

Level of ambition: To be verified for 4C status, a company must have an equal or greater number of green marks compared to red marks and considered “average-yellow.”⁷

Definitions	<p>Primary forest: “Cutting of primary forest or destruction of other forms of natural resources that are designated by national and/or international legislation.”⁸</p> <p>Protected areas: “Designated by national and/or international legislation.”</p>
Timelines	<p>Cut-off date: 5 years prior to joining 4C Unit⁹</p> <p>Implementation period: 3 years¹⁰</p>
Geographic Area	<p>Farm maps are required for self-assessments and verification.</p>
Baselines	<p>Farm maps and biodiversity conservation plans are required to achieve green or yellow classifications in the Conservation of Biodiversity principle for both self-assessment and verification.¹¹ However, if a 4C Unit has enough green marks to counter-balance a lack of land use maps or conservation plans, it may still be verified.</p> <p>Self-assessments and verifications require documentation of soil analysis, farm maps and biodiversity conservation plans to approve 4C status; however, there is no guidance on how the soil analysis should be completed or what the farm maps and conservation plans should include.</p>
MMRV	<p>Monitoring</p> <p>Self-assessments require:</p> <ul style="list-style-type: none"> • Soil analysis • Farm Maps • Compliance or non-compliance with list of unacceptable practices • Business partner mapping • Organization chart <p>Monitoring and verification of a 4C unit includes an initial self-assessment (aggregate self-assessment, business partner mapping, and organizational chart) and verification by a 4C-approved independent third-party verifier.¹² Once a 4C Unit is given a license to sell 4C Compliant Coffee, it must send an improvement plan to the verifier within 6 weeks. 4C Units then complete annual self-assessments and updates of all documents for the three-year license period. Self-assessments consist of checking a box either illustrating compliance with the list of unacceptable practices or non-compliance.¹³</p> <p>Guidance documents:</p> <ul style="list-style-type: none"> • 4C offers a Training Manual on Climate Change and Coffee for coffee organizations and extension services,¹⁴ as well as an on-farm Carbon Monitoring Training manual (Spanish only).¹⁵ <p>Measurement</p> <p>Guidance Documents:</p> <ul style="list-style-type: none"> • The Cool Farm Tool (CFT) is a GHG calculating tool to be created with the future Climate Module for quantifying on-farm emissions. It is fully developed for use by 4C Units outside of the Kenyan pilot area. <p>Reporting</p> <p>The 4C Secretariat reports the status of the program by circulating a list of licensed 4C Units to the membership on a regular basis. Members are also provided with timely updates of any cases of suspended licenses and/or withdrawals.</p>

⁵ Id.

⁶ 4C Code of Conduct Illustrated Guide

⁷ 4C Code of Implementation Process

⁸ 4C Code of Conduct

⁹ 4C Code of Conduct

¹⁰ 4C Code of Implementation Process

¹¹ 4C Code of Implementation Process

¹² Id.

¹³ 4C Verification Regulations Self-Assessment.

¹⁴ Linne, K. Climate Change and Coffee: Training for coffee organizations and extension services. GIZ,2010.

¹⁵ Vallejo, A. Monitoreo de gases de efecto invernadero en sistemas agroforestales.

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Managing Entities report the volumes of coffee sold at the end of each coffee year to the 4C Secretariat. Buyers along the 4C coffee chain as well as final buyers report annually the volumes of 4C coffee purchased from each 4C Unit. The 4C Secretariat compiles this data and shares it with all members and posts it to the 4C website.

Each year, Managing Entities send annual update packages to the 4C Secretariat on their status, including: an annual update, updated self-assessment, updated business partner mapping, updated improvement plan, updated organizational chart.

4C verifiers must send their final verification reports to the 4C Unit's Managing Entity within 15 working days of the date of the closing meeting. The verification report must be kept by the Managing Entity, the 4C verifiers and the 4C Secretariat for a minimum of 6 years.¹⁶

Verification

Within one verification cycle (3 years), verification must take place at least once in the harvest season (e.g. if initial verification took place in off-season, Managing Entity must schedule re-verification or addendum verification in the harvest period).

The 4C sampling formula for verification visits is 50% of the square root of the total number of Business Partners plus the Managing Entity. The sample is rounded up if the square root results in a decimal. (e.g., 50% $\sqrt{1,325}$ total Business Partners = 18.2 and rounded up to 19, plus the managing entity is 20 field visits for the verification sample). 4C verifiers conduct unannounced random verification visits in different regions to ensure credibility of the overall 4C system.

Verifications also consist of checking either "conforming" or "non-conforming" boxes for each of the 4C requirements, and a space for a brief description of the non-conforming situation if needed. For compliance with each dimension, the verifier grades the 4C Unit with green, yellow or red using a single cell for each criterion for the managing entity and each business partner.

Re-verification is done every three years to maintain a 4C license.

Chain of Custody	No information
Subsidiary relationships	All Business Partners are mapped at the beginning of the licensing process and are included in annual self-assessments and verifications (managing entity, coffee producer, farmer, processing, milling, warehouse, collector, transporter, exporter, labor service-provider, chemical sprayer, and marketing function). ¹⁷
Noncompliance	<p>Non-conformities occur when a 4C Unit does not fulfil one of the 4C verification requirements and are either a critical non-conformity or non-conformity.¹⁸ Non-conformities include the failure to fulfil the exclusion of unacceptable practices (e.g., clearing of primary forests) requirement. Criteria for identifying a critical non-conformity include:</p> <ul style="list-style-type: none">• Sufficient evidence that an unacceptable practice exists within the 4C Unit; and• There is no evidence demonstrating that actions have been taken by the Managing Entity to address this non-conformity <p>A critical non-conformity can also result from:</p> <ul style="list-style-type: none">• One or more red practices still exist after 3 years; and• No new business partners have been included in 4C Unit at the time of re-verification or the number of new business partners joining the 4C Unit represents less than a 30% increase of total business partners; and• No evidence exists to demonstrate that actions have been taken to eliminate the red practices. <p>If a critical non-conformity is confirmed during initial verification or 6-month follow up, no license is issued and a follow-up is carried out within 180 days and a license is only issued upon confirmation of clearance of the critical non-conformity. A critical non-conformity during an addendum verification results in immediate suspension and a follow-up in 180 days. Members are informed of the non-conformity and the suspension is only lifted upon confirmation of clearance of the non-conformity during the follow-up. A critical non-conformity during re-verification means the license is not renewed and a follow-up is conducted in 180 days, members are informed and the license is only renewed upon confirmation of clearance.</p> <p>Non-conformities can result if an improvement plan is not submitted on an annual basis to the verifiers and 4C Secretariat the 4C license, if annual reporting is not done after two reminders, or if access to relatively required information is not granted to verifiers the license is suspended. Suspension is only lifted upon submission of the updated improvement plan and accompanying evidence of progress, annual update documents/record, or granting access to information to verifiers.</p> <p>If verifiers are in conflict of interest or non-transparent selection of verifiers has occurred the license is immediately suspended and a visit by a verifier appointed by the Secretariat and paid for by the 4C Unit is done over a maximum of 4 days (depending on the size of the unit). Suspension is only lifted upon confirmation by the appointed verifier of overall conformance of the 4C Unit.</p> <p>Sanctions for noncompliance are blacklisting on the 4C web page and ultimate expulsion from membership.¹⁹</p>

1.2 Aquaculture Stewardship Council (ASC)

Overview: Aquaculture Stewardship Council is an independent non-profit organization that aims to be the world's leading certification and labelling program for responsibly farmed seafood.²⁰ Co-founded by the Dutch Sustainable Trade Initiative (IDH) and WWF in 2010, the ASC is associated most closely with European market demand and its strengths on social and environmental issues.

¹⁶ 4C Verification Regulations.

¹⁷ 4C Code of Implementation Process

¹⁸ 4C Verification Regulations.

¹⁹ 4C Essentials

²⁰ EXISTING TABLES, www.asc-aqua.org

Objective: The ASC’s ambition is to “transform the world’s seafood markets and promote the best environmental and social aquaculture performance.”

Commodity: Tilapia, pangasius, abalone, bivalved shellfish and salmon.

Registry: <http://www.asc-aqua.org/index.cfm?act=tekst.item&iid=4&lng=1>

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity Fish farms and fish product suppliers

Environmental Targets There must be evidence proving no significant adverse effects on threatened/endangered species or the habitat on which they depend.²¹

Freshwater trout, salmon and shrimp farms may not be located in National Protected Areas, unless the protected area is classified as Category V or VI by the International Union for Conservation of Nature (IUCN).²² An exception is also made for farms that were already established before classification as a protected area. For shrimp farms to meet the exception, the farm must be no more than 25% of the total protected area.²³

Freshwater trout farms may also not have resulted in the conversion of wetlands after 1999, unless the conversion is for access to water (canals for inlets and outlets).²⁴ In this case, the converted area must be offset by restoration of 100% of the equivalent area of functional wetlands with the same habitat characteristics.

For Pangasius ponds established after 2012, there must be evidence from government organizations that the land has been allocated to agriculture or aquaculture for 10 years prior to new development or farm expansion.²⁵

Salmon farms must undergo an assessment of the farm’s potential impacts on biodiversity and nearby ecosystems.²⁶ The assessments just contain at a minimum: identification of proximity to critical, sensitive or protected habitats and species (HCVAs, areas important for conservation/biodiversity or the equivalent); identification and description of potential impacts the farm might have on biodiversity, with a focus on those habitats or species; and a description of strategies and programs underway on the farm to eliminate or minimize identified impacts, and for monitoring the outcomes of those programs and strategies).²⁷

Salmon farms cannot be placed in a protected area or High Conservation Value Area (HCVA).²⁸ There are exceptions for protected areas classified as Category V or VI by IUCN or farms established on land before it was classified as a protected area. There are also exceptions for farms on HCVAs that demonstrate environmental impacts are compatible with the conservation objectives of the HCVA.²⁹ The burden of proof is on the farm to prove that its existence is not negatively impacting the HCVA.

Salmon farms must keep records of GHG emissions and annual GHG assessments of the farm, and, starting in 2015, GHG emissions of the feed used during production cycles.³⁰

Shrimp farms must undergo Biological Environmental Impact Assessments (B-EIAs) and make the results publicly available.³¹ Shrimp farms established after May 1999 cannot be located in mangrove ecosystems and other natural wetlands or areas of ecological importance as determined by the B-EIA or government authority.³² An exception can be made if the farm is built for pumping stations and inlet/outlet canals if they were permitted by authorities and have rehabilitated an equivalent area as compensation. Farms before May 1999 located on such ecosystems are required to offset impacts with rehabilitation as determined by the B-EIA, state/local/national legislation, or 50% of the affected ecosystem (whichever is greater).

Guidance documents:

- There are separate standards with Principles, Indicators and Rationales for each farm type. The standards include appendixes with detailed information on how to comply with the requirements.

Level of ambition: ASC requires 100% compliance with all requirements.

²¹ ASC Abalone Standard. 2012.

²² ASC Freshwater Trout Standard, Indicator 2.2.1 and 7.3. 2013; ASC Salmon Standard. 2012; ASC Shrimp Standard, Indicator 2.2.1. 2014.

²³ ASC Shrimp Standard, Indicator 2.2.1. 2014.

²⁴ ASC Freshwater Trout Standard, Indicator 2.1.2.

²⁵ ASC Pangasius Standard, Indicator 2.2.1. 2012.

²⁶ ASC Salmon Standard, Indicator 2.4.1. 2012.

²⁷ Id., Appendix I-3.

²⁸ Id., Indicator 2.4.2.

²⁹ Id.

³⁰ Id., Indicators 4.6.2-4.6.3.

³¹ ASC Shrimp Standard, Indicator 2.1.1. 2014.

³² Id., Indicator 2.2.2.

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Definitions	<p>Protected Areas: a clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.³³</p> <p>Mangrove Ecosystems: mangroves (“tidal forests,” “coastal woodlands,” or “oceanic rainforests”) are woody plants that grow in tropical and subtropical latitudes along the land-sea interface, bays, estuaries, lagoons, backwaters, and in the rivers, reaching upstream up to the point where the water still remains saline.³⁴</p> <p>Mangrove Restoration: re-introduction and re-establishment of assemblages of native mangrove species to sites that can support them to be developed into mangrove ecosystems which perform similar functions as those that were there originally.</p> <p>Natural Wetland: non-artificial areas of marsh, fen, peatland or water, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres.</p> <p>High Conservation Value Areas: natural habitats where conservation values are considered to be of outstanding significance or critical importance (HCV Network).³⁵</p>
Timelines	<p>Cut-off date: May 1999 (shrimp)³⁶</p> <p>Certification period: 3 years maximum</p>
Geographic Area	Tilapia farms must provide information on site location, size in hectares, GPS coordinates, satellite imagery, schematic with locations of all water inlets and outfalls, environmental impact assessment for initial farm and any expansion, and stewardship activities. ³⁷
Baselines	<p>B-EIA assessments must be carried for shrimp farms out by nationally accredited body, or where no accredited body exists, a team of scientists, biologists and ecologists with at least a Master of science degree.³⁸</p> <p>The B-EIA starts with a screening process that requires farms to include information on screening “triggers” including: potential/actual impacts on protected areas or other areas important for biodiversity such as extractive reserves, indigenous people’s territories, wetlands, soil prone to erosion, relatively undisturbed or characteristic habitat (<i>i.e.</i>, HCVAs). ASC encourages development of a biodiversity screening map indicating important biodiversity values and ecosystem services.</p> <p>The B-EIA scoping process for shrimp farms requires farmers to address expected or already experienced biophysical changes in soil, water, air, flora and fauna resulting from activities.</p> <p>For shrimp farms established after 1999, the B-EIA impact study requires proof through aerial photography, satellite imagery, GIS, historical data or records, and community and non-owning farmer testimonials that the farm did not cause mangrove deforestation or natural wetland alteration.</p> <p>Shrimp farms must maintain riparian buffers and corridors, as defined in national legislation or determined by the B-EIA.³⁹ Riparian buffers include a minimum width of permanent native and natural vegetation between farms and natural aquatic/brackish environments.⁴⁰ Corridors include a minimum width of permanent native and natural vegetation through farms to provide human or wildlife movement across agricultural landscapes.⁴¹</p> <p>Tilapia farms must provide information on site location, size in hectares, GPS coordinates, satellite imagery, schematic with locations of all water inlets and outfalls, environmental impact assessment for initial farm and any expansion, and stewardship activities.⁴² Wetland conversion of any type following the year 1999 is not allowed by any tilapia farms seeking certification.⁴³ There are no exceptions listed.</p> <p>Shrimp farmers must include any available information on baseline conditions prior to an existing farm and any baseline conditions for proposed farms in their B-EIAs.⁴⁴</p> <p>Guidance documents:</p> <ul style="list-style-type: none">• The ASC Shrimp Standard gives guidance on how to conduct a B-EIA, as well as guidance on restoring mangroves with explanations and checklists for farmers and auditors.⁴⁵
MMRV	<p>Monitoring</p> <p>Applicants owning multiple sites will be subject to compliance at the particular site(s) they chose to undergo certification.⁴⁶ The B-EIA should be conducted by a person or organisation that has expertise in the subject matter. Guidance for the B-EIA suggests that farms monitor neighbouring mangrove areas ensure that there are no negative impacts.</p> <p>Annual GHG assessments require:</p>

³³ Id., Indicator 2.2.1.

³⁴ Id., Indicator 2.2.2.

³⁵ Id., Indicator 2.4.2. 2012.

³⁶ ASC Shrimp Standard, Indicator 2.2.2. 2014.

³⁷ ASC Tilapia Standard, Appendix I. 2012.

³⁸ Id., Appendix I. 2014.

³⁹ Id., Indicators 2.4.2-2.4.3.

⁴⁰ Id., Indicator 2.4.2.

⁴¹ Id., Indicator 2.4.3.

⁴² ASC Tilapia Standard, Appendix I. 2012.

⁴³ Id., Indicator 2.6.1.

⁴⁴ ASC Shrimp Standard, Appendix I. 2014.

⁴⁵ ASC Shrimp Standard, Appendix I and Indicator 2.2.2. 2014.

⁴⁶ ASC Farm Certification and Accreditation Requirements, Requirement 17.1.3. 2012.

- Should follow requirements of the chosen standard for:
 - Accounting principles of relevance, completeness, transparency, consistency and accuracy
 - Setting operational boundaries (including scope 1 and scope 2 emissions)
 - Tracking emissions over time
 - Reporting GHG emissions
 - Documentation of emissions factors used (recommends IPCC)

Biological Environmental Impact Assessments require:

- Identification of HCV areas
- Proof that farm is not negatively impacting HCV areas (satellite imagery, GIS, historical data or records, community testaments, land use maps)
- Potential impacts on biodiversity
- Strategies and programs in place to eliminate or minimize impacts
- Plan to monitor outcomes of those strategies and programs
- Biodiversity screening map
- Site location, size in hectares, GPS coordinates, satellite imagery, schematic with locations of all water inlets and outfalls
- Monitor neighboring mangrove areas
- Evidence of rehabilitation, where necessary

Measurement

GHG assessments should follow either the GHG Protocol Corporate Standard or ISO 14064-1.⁴⁷ It is optional for certified companies to calculate the emissions of their entire company, but only required to assess those of the certified farms. Assessments should follow the requirements of the chosen standard pertaining to:

- Accounting principles of relevance, completeness, transparency, consistency and accuracy
- Setting operational boundaries
- Tracking emissions over time
- Reporting GHG emissions.

The operational boundaries of farm sites shall include both scope 1 emissions (directly from source owned or controlled by the farm/facility) and scope 2 emissions (resulting from the generation of purchased electricity, heating or cooling). Salmon farms must document the emission factors they use and the source of the emission factors (ASC recommends IPCC or factors provided by national government agencies).

Guidance documents :

- The ASC Salmon Standard provides an appendix with detailed information on how to calculate GHG emissions for certified farms.⁴⁸

Reporting

Certification bodies are responsible for keeping their data entries on the ASC database up to date.⁴⁹ Certification bodies shall post all certification decisions, including changes in scope, suspension and withdrawals on the ASC database.⁵⁰

Verification

Auditors gauge compliance with the B-EIA by seeing if a B-EIA report is available and complied to B-EIA Appendix I processes.⁵¹ The auditor goes through the Appendix A checklist point by point to ensure the farm is following B-EIA recommendations and monitoring protocol. Auditors should also verify that stakeholders were consulted in the B-EIA research by the ecologist through records of the meeting with stakeholders. During surveillance audits, auditors verify the implementation of the B-EIA action/monitoring plan.

To verify whether a farm is preserving or destroying critical habitats the certification bodies verify that the geographic coordinates are available for the farm and are accurate, and whether the farm is established not on a protected area. Certification bodies also verify that the designation is accurate if a farm is established within a protected area and that the area was not designated as a Category I-IV protected area at the time of construction or relevant permissions were obtained at the time of construction. Auditors verify that farm location and activities are compatible with protected area zoning and management plan.

To verify that a declaration identifying the year of farm construction is accurate during local community interviews (if farm was constructed on a mangrove or other critical ecosystem after 1999). The auditor should use land use maps of the area before and after 1999 and should refer to the B-EIA which should include the baseline ecological conditions prior to farm establishment. Satellite images before and after 1999 are also admissible when available.

Auditors verify that rehabilitated areas conform to the requirements and have a surface area as indicated in the B-EIA. Auditors should be provided evidence of the conditions of the affected area that demonstrate rehabilitation, whether it is man-made or natural, or a combination of both. Auditors should refer to the B-EIA report and the interactive map on the AZE website to confirm that the farm is not located in an area considered a critical habitat for endangered species. Auditors verify that the width and status (by direct observation) of required buffers and corridors are adequate.

Chain of Custody

The use of the ASC label can be applied only to products that are sold through a consecutive, certified chain of custody that ensures

⁴⁷ ASC Salmon Standard, Appendix V. 2012.

⁴⁸ ASC Salmon Standard, Appendix V. 2012.

⁴⁹ ASC Farm Certification and Accreditation Requirements, Requirement 7.4.1. 2012.

⁵⁰ Id., Requirement 17.9.3.

⁵¹ Shrimp Audit Manual.

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traceability of certified products from production to final point of sale. For the ASC, chain of custody is certified through application of the MSC chain of custody system, to which the ASC CoC requirements have been added as an annex, to ASC certified aquaculture products. Only products that originate in ASC certified farms and are sold through MSC certified chain of custody are eligible to carry the ASC label.⁵²

The MSC chain of custody standard requires:⁵³

- Organization shall maintain records that allow products or batches of products to be traced from sales invoice to certified source
- There shall be no substitution of certified products with non-certified products (non-certified products may be used as an ingredient in accordance with Annex BD of MSC Certification Requirement)

There shall be a system to ensure all certified products are identified

Subsidiary relationships	Applicants owning multiple sites will be subject to compliance at the particular site(s) they chose to undergo certification. ⁵⁴
Noncompliance	<p>Minor nonconformity must include an agreed upon action plan to address the non-conformity, including the root cause, corrective actions to be taken and timeframe for implementation of corrective action.⁵⁵ Minor nonconformities may be extended once for a maximum period of 1 year if full implementation of corrective action was not possible due to circumstances beyond the control of the client. The CAB should raise a major non-conformity where minor non-conformities are repeatedly raised against a particular requirement. The CAB shall require that minor non-conformities raised during surveillance audits are satisfactorily assessed in 1 year.</p> <p>In the case of a major non-conformity raised during the period of validity of a certificate, the CAB shall require: the certification holder satisfactorily address the non-conformity within a maximum of 3 months; major non-conformities may be extended once for a maximum period of another three months if full implementation of corrective action was not possible due to circumstances beyond the control of the client; that the root of the cause of the non-conformity is identified. Major non-conformities shall not be downgraded to minor non-conformities. The CAB shall assess the effectiveness of the corrective and/or preventive actions taken before closing out a major or minor non-conformity.</p>

1.3 Bonsucro

Overview: Formerly known as the Sugar Cane Initiative, Bonsucro is a global multi-stakeholder non-profit organization dedicated to reducing the environmental and social impacts of sugarcane production while recognizing the need for economic viability.⁵⁶ Founded in 2007 and providing certification since 2011, Bonsucro has 64 members from over 20 countries.⁵⁷ As of 2012, over 1.5% of global sugar cane production (sugar and ethanol) and 16 mills are Bonsucro certified.⁵⁸

Objective: Bonsucro fosters the sustainability of the sugarcane sector through a metric-based certification scheme and by supporting continuous improvement for members.⁵⁹

Commodity: Sugarcane and ethanol

Registry: <http://bonsucro.com/site/certification-process/certified-members/>

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS	
Certified Entity	Mill and farm
Environmental Targets	Mills must be in compliance with national laws, including laws on pollution and environmental protection, nature conservation and HCV area protection, energy and GHG emissions, soil protection, and agricultural and processing practices. ⁶⁰ The stricter regulation prevails unless otherwise specified.

⁵² http://www.asc-aqua.org/upload/ASC%20Farm%20Certification%20and%20Accreditation%20Requirements_v1.0.pdf; see also <http://www.msc.org/documents/scheme-documents/msc-standards/msc-coc-standard-v3>

⁵³ <http://www.msc.org/documents/scheme-documents/msc-standards/msc-coc-standard-v3>

⁵⁴ ASC Farm Certification and Accreditation Requirements, Requirement 17.1.3. 2012.

⁵⁵ Id., Requirement 17.8.

⁵⁶ Bonsucro Website. Available at <http://bonsucro.com/site/monitoring-evaluation/#>.

⁵⁷ Id.

⁵⁸ Id.

⁵⁹ Id.

⁶⁰ Bonsucro Production Standard, Indicator 1.1.1. 2013.

Mills must monitor emissions and minimize climate change impacts by measuring net GHG emissions per tonne of cane, net GHG emissions per tonne of sugar, and Net GHG emissions per MJ of ethanol.⁶¹ Net GHG emissions per tonne of cane must be less than 40 kg CO₂ eq/t cane; net GHG emissions from sugar must be less than 0.4 t CO₂ eq/t sugar; and net GHG emissions from ethanol must be less than 24 g CO₂ eq/MJ fuel.

Mills must prevent the cultivation of sugarcane on areas of critical conservation value, including HCV categories 1-6, or legally protected areas.⁶² International definitions of HCVs prevail over national. In the absence of HCV maps or databases, credible documentary evidence must demonstrate that no HCV is converted after 1 January 2008.

Mills must implement an environmental impact and management plan (EIMP), which addresses biodiversity, ecosystem services, soil, water, air, climate change, use of crop protection chemicals, fertilisers, can burning and noise.⁶³ A summary of the EIMP must be made available to the relevant stakeholders.

Bonsucro also provides additional mandatory requirements for compliance with the EU Renewable Energy Directive (EU RED).⁶⁴

Guidance documents:

- A Priority Indicators spreadsheet is available with the core indicators that farms and mills must comply with to be certified.⁶⁵

Level of ambition: Bonsucro requires compliance with 4 core environmental indicators as well as 80% compliance with all indicators.⁶⁶ If an indicator applies to both a farm and a mill, it must be met by both entities to be considered satisfied. For a mill to be certified it must apply for certification under both the production standard and the chain of custody standard.

Definitions	High Conservation Value: biological, ecological, social or cultural values which are considered outstandingly significant or critically important, at the national, regional or global level. (HCV Network 6 categories). ⁶⁷
Timelines	Cut-off date: 1 January 2008 ⁶⁸ Certification period: 3 years ⁶⁹
Geographic Area	No information
Baselines	Default land use change values are taken from PAS 2050: 2008. ⁷⁰ Baselines for GHG Calculation according to EU RED are taken from EU RED. ⁷¹ Guidance documents: <ul style="list-style-type: none"> • Within the Bonsucro Production Standard, an annex with detailed parameters on calculating GHG emissions under the EU RED and revised Fuel Quality Directive are given for mills.⁷² • The Bonsucro Calculator gives detailed guidance on compliance with the Bonsucro Standard and what is involved in the calculation of GHG emission.⁷³ It is a software program that is only available to members.
MMRV	<p>Monitoring</p> <p>Annual GHG Assessments require:</p> <ul style="list-style-type: none"> • Net GHG emissions per ton of cane, per ton of sugar, and per MJ of ethanol • Land-use change must be taken into account if farm was established after 1 January 2008 • Default land-use change values from IPCC <p>Guidance documents:</p> <ul style="list-style-type: none"> • Bonsucro checklists for the Production Standard and the Chain of Custody Standard are available for both the certification body and the farm/mill. <p>Measurement</p> <p>For GHG calculation, emissions from direct land use change must be taken into account if the sugarcane is produced on a farm established</p>

⁶¹ Id., Criterion 3.2.

⁶² Id., Indicator 4.1.2.

⁶³ Id., Indicator 4.1.3.

⁶⁴ Id., Principle 6.

⁶⁵ Bonsucro Priority Indicators for M&E.

⁶⁶ Bonsucro Production Standard, Principle 4.

⁶⁷ Bonsucro Production Standard, Annex 1. 2013.

⁶⁸ Bonsucro Production Standard, Indicator 4.1.2. 2013.

⁶⁹ Bonsucro Certification Protocol, 3.1.4. 2013.

⁷⁰ Guidance for the Bonsucro Production Standard, Annex 4. 2013.

⁷¹ Id., Annex 6.

⁷² Bonsucro Production Standard, Annex 3. 2013.

⁷³ Bonsucro Guidance for Production Standard, Criterion 3.2. 2013.

after 1 January 2008.⁷⁴ The method used for estimating changes in carbon stock in the PAS 2050, using default land use change values from the IPCC.

Reporting

The reporting period is one year unless otherwise agreed, and should include a single complete milling season.⁷⁵

Audit summary reports must include at least: address and contact information of economic operator (parent entity); scope and program of the audit (Bonsucro or Bonsucro EU); brief description of activities; brief description of organization or attach organization scheme; results of previous audit; CARs of the current audit; results of survey; results of audit and score in % for noncore criteria; agreement and timeframe for closing out CARs; and audit checklist.⁷⁶

Verification

Certifications must undergo annual surveillance audits.⁷⁷ After the initial audit, 2 surveillance audits must be conducted within the next 2 harvest years. A re-audit is required, which is equal to the initial audit, before the end of the validity period.⁷⁸

Guidance documents;

- Bonsucro Audit Guidance documents are used during the auditing process.⁷⁹

Chain of Custody

The Bonsucro Mass Balance Chain of Custody Standard contains a set of technical and administrative requirements for enabling the tracking of claims on the sustainable production of Bonsucro sugarcane and all sugarcane derived products along the entire supply chain after the mill and its can supply; through production (e.g., conversion, processing, manufacturing, transformation), warehousing, transportation and trade to use of sugarcane and all sugarcane derived products.⁸⁰

Chain of Custody requirements applicable to the mill and its cane supply area are already included within the Production Standard and are identical to those of the Mass Balance Chain of Custody Standard. Therefore, the Chain of Custody Standard starts after the mill.

There are two scopes of CoC certification: Bonsucro and Bonsucro EU (compliant with EU RED). Products must be 90% traceable.

Subsidiary relationships

For multi-site certification, the overarching management system must show that they control, enforce, verify and document implementation of and compliance with the Bonsucro standard.⁸¹ The first stage of the audit system includes a determination of the organizational structure, including any multi-site structures.⁸² The certification body must verify that central management undertakes internal audits of each site at least annually and can show records that they have been executed.⁸³ Annual surveillance audits of multi-site certification include a sample of the subsidiaries scheduled in such a way that by the end of the certification period all subsidiaries have been audited in at least one sample.⁸⁴

Not all sites must be certified for multi-site certification, but if one site within the multi-site certification scope makes false claims of conformity or does not close out Corrective Action Requests, all sites included in the multi-site certification may be subject to suspension of the certification and/or sanctions.⁸⁵

Noncompliance

There are major and minor nonconformities. Major nonconformities are noncompliance with a core indicator, at least 80% of the indicators in principles 1-5, or any chain of custody indicator.⁸⁶ If there is a major nonconformity, no certificate is issued. If there is a minor nonconformity, a Corrective Action Request is issued and signed and must be rectified by the next surveillance audit.⁸⁷

1.4 Fairtrade International

Overview: Fairtrade International was founded in 1997 and divided in 2004 into Fairtrade International, responsible for setting Fairtrade standards and providing producer support and FLO-CERT, responsible for certifying producers.⁸⁸ Historically, Fairtrade's strength has been designed to benefit disadvantaged producers and ensure better terms of trade. However, the standard has been progressive on issues of climate change and now includes direct has partnered with Golden Standard Foundation to develop standards for Climate Smart Agriculture activities.⁸⁹

⁷⁴ Guidance for the Bonsucro Production Standard, Criterion 3.2. 2013.

⁷⁵ Bonsucro Production Standard, Annex 1. 2013.

⁷⁶ Bonsucro Certification Protocol, Appendix 6. 2013.

⁷⁷ Bonsucro Certification Protocol, 3.1.4. 2013.

⁷⁸ Id., 5.1.10.

⁷⁹ Bonsucro Certification Protocol, 5.4.8. 2013.

⁸⁰ http://bonsucro.com/site/wp-content/uploads/2013/02/Bonsucro_MB_Chain_of_Custody_Standard-March-2011.pdf

⁸¹ Id., 5.2.2.5.

⁸² Id., 5.4.6.

⁸³ Id., 5.5.3.2.

⁸⁴ Id. 5.5.4.3.

⁸⁵ Id., 5.5.5 – 5.5.7.

⁸⁶ Bonsucro Certification Protocol, 5.8.4.

⁸⁷ Id.

⁸⁸ Fairtrade International Website. Available at: <http://www.fairtrade.net/361.html>.

⁸⁹ Id.

Objective: To connect disadvantaged producers and consumers, promote fairer trading conditions and empower producers to combat poverty, strengthen their position and take more control over their lives.⁹⁰

Commodity: Cocoa, Coffee, Cane Sugar, Cereals, Fibre Crops, Fresh Fruit, Gold, Herbs, Honey, Nuts, Oilseeds, Tea, Timber, Vegetables

Registry: <http://www.fairtrade.net/meet-the-producers.html>

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity Producers and traders

Environmental Targets

Core requirements

Producers and members must avoid negative impacts on protected areas and in areas with high conservation values within or outside the farm or production areas from the date of application for certification.⁹¹ The areas that are used or converted for production of a Fairtrade crop must comply with national legislation related to agricultural land use. (Audit starts with initial audit).

Producers carrying out wild harvesting of Fairtrade products from uncultivated areas must assure the sustainability and survivability of the collected species in its native habitat.⁹² (Audit after 1 year).

Development requirements (must comply with minimum average threshold)

Producers must report on activities that are carried out to protect and enhance biodiversity (e.g., key biodiversity issues; raising awareness; agroforestry systems; maintaining and restoring natural ecosystems, buffer zones, and areas of high conservation value).⁹³ Restoration of ecosystems can include replanting native vegetation or actively protecting it to allow for regeneration of native vegetation. (Audit after 6 years).

Producers must report on practices carried out to reduce GHG emissions and increase carbon sequestration.⁹⁴ (Audit after 6 years). The Explanatory Document gives options for sequestering carbon and reducing GHGs, such as plant tree crops and other agroforestry methods, preserve forests and grassland that maintain carbon sinks while protecting watersheds, and re-vegetate degraded soils.⁹⁵

Guidance documents:

- The producer standard provides guidance for core and development requirements, and an Explanatory Document for the Fairtrade Standard for Small Producer Organizations that goes into depth about the requirements for each Principle, when the various criteria need to be complied with, whether they are core or developmental requirements, and steps for “what should I do?”⁹⁶ The Explanatory Document also provides links to related websites with information on how to comply with each criteria and principle (e.g., CBD, IUCN, HCVNetwork, and FSC).

Level of ambition: Fairtrade requires compliance with 13 core environmental criteria in years 1 and 2 and 16 core environmental criteria in years 3-6. In years 1 and 2 there are no development criteria, in years 3-5 there are 14 and in year 6 there are 24.

Compliance with development criteria is not checked during surveillance audits, only at Renewal Audits.⁹⁷

Producers are audited according to a scale of 1-5. If the rank selected is equal or above the value 3, the evaluation result is “yes.” If it is below 3, it will be “no.” If “NA” is selected the criterion is not applicable and will not be taken into consideration.

If the average calculation equals or is above 3.0, no further action is required. If it is below, the whole block of development criteria is considered as nonconformity.

Definitions

Protected Areas: clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values (IUCN).⁹⁸ They can be public or private biological conservation areas.

High Conservation Value Areas: areas that are worth conserving because they are important on a local, regional or global scale and which may include social value such as the benefits that an area provides to a community in terms of its cultural importance or economic resource. Areas can usually be identified through natural vegetation with low disturbance from agriculture, forestry, industry, urbanism or other (refers

⁹⁰ Fairtrade International Website: Our Vision & Mission. Available at: <http://www.fairtrade.net/our-vision.html>.

⁹¹ Id., 3.2.33.

⁹² Id., 3.2.36.

⁹³ Id., 3.2.34.

⁹⁴ Id., 3.2.40.

⁹⁵ Explanatory Document for the Fairtrade Standard for small Producer Organizations. 2014.

⁹⁶ Explanatory Document for the Fairtrade Standard for small Producer Organizations. 2014.

⁹⁷ Id.

⁹⁸ Fairtrade Standard for Small Producer Organizations, 3.2.33. 2011.

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to HCV Network and FSC).

Biological Value: ecosystems or habitats of an endangered species.

Buffer zones: areas created to enhance the conservation of a legally or non-legally protected area or body of water. Agricultural buffer zones are uncultivated areas lying between two or more areas such as fields or forests.

Timelines	<p>Cut-off date: date of application⁹⁹</p> <p>Certification Period: 3 years¹⁰⁰</p>
Geographic Area	Maps of areas at risk of noncompliance, such as those areas close to undisturbed forest and HCV areas where there is a risk of expansion of local farms and illegal logging.
Baselines	<p>Producers are required to identify which requirements they may be at risk of not complying with, and to repeat this identification periodically at least every 3 years.¹⁰¹ Fairtrade provides a sample map of such identification, which includes a basic illustration of areas where there are potential risks for noncompliance.¹⁰² One area identified in the sample map is a field close to undisturbed forest (considered HCV), where there is a risk of expansion of local farms and illegal logging.</p> <p>Planting areas shall not have been forests for at least ten years.¹⁰³ Local Stakeholder Consultation should be conducted prior to the planting start date. If the LSC is conducted after the planting start date, the project owner shall provide further explanation of how comments received during the LSC are taken into account in the project.</p> <p>The baseline is established by calculating the sum of carbon stocks on the eligible planting area prior to planting. Carbon pools include above and below ground tree and non-tree biomass.¹⁰⁴</p>
Monitoring and Verification Tools	<p>Monitoring</p> <p>Management plans require:</p> <ul style="list-style-type: none">• Identify HCV areas• Identify main obstacles and actions to take to preserve HCV• Monitor progress of those actions• If HCV area is converted, there must be evidence of legal use and legal conversion to production <p>GHG Emissions Reports require:</p> <ul style="list-style-type: none">• Report on climate change mitigation measures (year 6)• Ex: preserve forests and grassland that maintain carbon sinks while protecting watersheds <p>The Certifier (FLOCERT) offers a gap analysis before certification, which assesses the producer or trader organization and provides a report of current compliance with the Fairtrade Standards and a list of the areas where there are potential nonconformities.¹⁰⁵</p> <p>Guidance documents:</p> <ul style="list-style-type: none">• Fairtrade provides guidelines for identifying, measuring and monitoring environmental impacts and references specific guidance on identifying HCVs by HCV Resource Network.¹⁰⁶ <p>Measurement</p> <p>No information</p> <p>Reporting</p> <p>No information</p> <p>Verification</p> <p>During the initial audit, only compliance criteria with the timeline 0 are checked.¹⁰⁷ After the initial certification the operator starts the first 3-year Certification Cycle. In case of Small Licensees the Certification Cycle constitutes 6 years. One physical surveillance audit is required per Certification Cycle. The first renewal audit is carried out during year 3. Compliance resulting from the first renewal audit, including fulfilment of Corrective Measures, must be achieved before the certificate is renewed for the next 3-year cycle. The same 3-year cycle continues into year 6.</p> <p>The compliance criteria are turned into a set of verifiable control points that are evaluated during the certification and auditing process.¹⁰⁸ Each criterion is linked to a specific timeline indicating when the criterion needs to be complied with.</p>
Chain of Custody	No Chain of Custody standard but there is a traceability requirement included in the producer standard.

⁹⁹ Fairtrade Standard for Small Producer Organizations, 3.2.33. 2011.

¹⁰⁰ FLOCERT Certification Standard Operating Procedure. 2014.

¹⁰¹ Id., 3.1.2 – 3.1.3.

¹⁰² Fairtrade International Sample map to identify risks in production areas. 2011.

¹⁰³ http://www.goldstandard.org/wp-content/uploads/2014/01/AR-Requirements_v0-9.pdf

¹⁰⁴ <http://theredddesk.org/markets-standards/gold-standard-land-use-and-forestry-framework>

¹⁰⁵ FLOCERT Website: Gap Analysis. Available at: <http://www.flocert.net/fairtrade-services/fairtrade-gap-analysis/>.

¹⁰⁶ Common Guidance for the Identification of High Conservation Values. HCV Resource Network. 2013.

¹⁰⁷ FLOCERT Certification Standard Operating Procedure. 2014.

¹⁰⁸ FLOCERT Public Compliance Criteria List – Small Producers' Organisations. 2014.

All Fairtrade products sold as Fairtrade must be originally produced and sourced from affiliated member organizations part of the Fairtrade certification.¹⁰⁹ There must be no mixing of certified and uncertified products; they must be physically separated in storage and sales.

Records of products sources from members must be kept and indicate the name of the individual member, date of purchase, product name, volume and price. Products sold as Fairtrade must be clearly identified as Fairtrade in all sales documents (invoices, delivery notes). Records of sales must indicate volume, name and international ID of the buyer and date of transaction.

If selling food composite products they must contain at least 20% Fairtrade content and declare on the package the minimum percentage of Fairtrade ingredients used.

Subsidiary relationships	Additional sites are owned by the master operator and carry out tasks such as handling/transforming the product in a way that affects either documentary or physical traceability (e.g., processing or storage). ¹¹⁰ Additional sites in producer certification are audited together with the master operator audit and at least once during the certification cycle.
Noncompliance	Nonconformity with a compliance criterion is considered nonconformity with the respective standards requirement. ¹¹¹ Non conformity with a major compliance criterion may result in suspension. Customers who have been decertified can re-apply to become Fairtrade certified if: any previous corrective measures related to major non-conformities are fulfilled at the time of the initial audit, and any unpaid certification fees from the period before decertification are paid before starting the application process. ¹¹²

1.5 Forest Stewardship Council (FSC)

Overview: Founded in 1993 by WWF and other environmental NGOs, timber traders, indigenous peoples groups and forest worker organizations, the FSC seeks to promote sustainable forestry management. It is represented in more than 80 countries and currently certifies 185 million hectares of forests (mostly in boreal and temperate forests in the northern hemisphere).¹¹³

Objective: The FSC is an international organization that provides a system for voluntary and independent third-party certification to promote sustainable forestry management. Its vision is to meet current needs for forest products without compromising the health of the world's forests for future generations.¹¹⁴ The goal of FSC has established a worldwide standard of recognized and respected Principles of Forest Stewardship. There are three types of certificates: Forest Management (forest managers or owners), Chain of Custody (manufacturers, processors and traders), and Controlled Wood (any organization wishing to avoid unacceptable categories of wood).¹¹⁵

Commodity: Timber

Registry: <http://memberportal.fsc.org/>

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS	
Certified Entity	Forest management units (person or entity)
Environmental Targets	<p>Note: FSC is in the process of developing and publishing new International Generic Indicators (IGIs), which will expand upon the below targets and assessment criteria. At the time of this report the IGIs were not publicly available and therefore were not included in the assessment. The IGIs are expected to be available later in 2015.</p> <p>FSC has a set of 10 principles which include forest-specific standards, such as Benefits From the Forest (principle 5), Environmental Impact (principle 6), Maintenance of High Conservation Value (HCV) Forests (principle 9) and Plantations (principle 10).</p> <p>According to the Benefits From the Forest criterion, forest management areas should be protected from illegal harvesting, settlement and</p>

¹⁰⁹ <http://www.flocert.net/wp-content/uploads/2014/02/PC-PublicComplianceCriteriaSPO-ED-7.9-en.pdf>

¹¹⁰ FLOCERT Scope of Certification Explanatory Document. 2014.

¹¹¹ FLOCERT Public Compliance Criteria List – Small Producers' Organisations. 2014.

¹¹² FLOCERT Certification Standard Operating Procedure. 2014.

¹¹³ FSC Website: Facts & Figures. Available at <https://us.fsc.org/facts-figures.219.htm>.

¹¹⁴ FSC Website: Mission and Vision. Available at <https://us.fsc.org/mission-and-vision.187.htm>.

¹¹⁵ FSC Website: Types of FSC Certificates. Available at <https://ic.fsc.org/types-of-certification.35.htm>.

other unauthorized activities.¹¹⁶ The rate of harvest of forest products shall also not exceed levels which can be permanently sustained.¹¹⁷

The Environmental Impact criterion requires assessments of environmental impacts – appropriate to the scale, intensity of forest management and the uniqueness of the affected resources – and adequately integrated into management systems.¹¹⁸ It also requires establishment of conservation zones and protection.¹¹⁹

Ecological functions and values must maintain intact, including forest regeneration and succession, and landscape maps are to be developed to record existing natural habitats and ecosystems.

Written guidelines must be prepared to minimize forest damage and erosion. Furthermore, forest conversion to plantations or non-forest land uses is prohibited, unless conversion (a) entails a very limited portion of the forest management unit; and (b) does not occur on HCV areas; and (c) will enable clear, substantial, additional, secure, long term conservation benefits across the forest management unit.

Under the Maintenance of high conservation value (HCV) Forests criterion, assessments are required to determine the presence of HCV forests.¹²⁰

Lastly, the Plantations criterion requires the design and layout of plantations to promote the protection, restoration and conservation of natural forests, and not increase pressures on natural forests.¹²¹ The scale and layout of plantation blocks must be consistent with the patterns of forest stands found within the natural landscape. And, in order to enhance the conservation of biological diversity, native species are preferred over exotic species in the establishment of plantations and the restoration of degraded ecosystems.¹²²

Guidance documents:

- Principles and criteria are accompanied by a set of country-specific indicators for how FMU can comply with the relevant FSC standards.¹²³
- International Generic Indicators are currently being developed for a set of Revised Principles and Criteria.¹²⁴ Once those indicators are complete, the Revised Principles and Criteria will be enforced. These include explanatory notes which expand on the meaning and desired outcomes, and offer context, background information and sources of further material.

Level of ambition: All requirements must be complied with to obtain certification.

Definitions

HCV forests: HCV forests are those that possess one or more of the following attributes:

- forest areas containing globally, regionally or nationally significant: concentrations of biodiversity values (e.g. endemism, endangered species, refugia); and/or large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance.
- forest areas that are in or contain rare, threatened or endangered ecosystems
- forest areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control)
- forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health) and/or critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

Forest: a tract of land dominated by trees.

Natural forest: forest area with many of the principle characteristics and key elements of native ecosystems, such as complexity, structure and biological diversity, including soil characteristics, flora and fauna, in which all or almost all the trees are native species, not classified as plantations. Natural forest includes the following categories:

- Forest affected by harvesting or other disturbances, in which trees are being or have been regenerated by a combination of natural and artificial regeneration with species typical of natural forests on that site, and where many of the above-ground and below-ground characteristics of the natural forest are still present. In boreal and north temperate forests which are naturally composed of only one or few tree species, a combination of natural and artificial regeneration to regenerate forest of the same native species, with most of the principal characteristics and key elements of native ecosystems of that site, is not by itself considered as conversion to plantations.
- Natural forests which are maintained by traditional silvicultural practices including natural or assisted natural regeneration.
- Well-developed secondary or colonizing forest of native species which has regenerated in non-forest areas.
- The definition of 'natural forest' may include areas described as wooded ecosystems, woodland and savanna

Other forest types: forest areas that do not fit the criteria for plantation or natural forests and which are defined more specifically by FSC-approved national and regional standards of forest stewardship.

Plantation: A forest area established by planting or sowing with using either alien or native species, often with one or few species, regular spacing and even ages, and which lacks most of the principal characteristics and key elements of natural forests. The description of plantations may be further defined in FSC Forest Stewardship Standards, with appropriate descriptions or examples, such as:

- Areas which would initially have complied with this definition of 'plantation' but which, after the passage of years, contain many or most of the principal characteristics and key elements of native ecosystems, may be classified as natural forests.
- Plantations managed to restore and enhance biological and habitat diversity, structural complexity and ecosystem functionality may, after the passage of years, be classified as natural forests.

¹¹⁶ FSC Principles and Criteria for Forest Stewardship, Principle 1.5. 1996.

¹¹⁷ Id., Principle 5.6.

¹¹⁸ Id., Principle 6.1.

¹¹⁹ Id., Principle 6.2.

¹²⁰ FSC Principles and Criteria for Forest Stewardship, Principle 9.1. 1996.

¹²¹ FSC Principles and Criteria for Forest Stewardship, Principle 10.2. 1996.

¹²² FSC Principles and Criteria for Forest Stewardship, Principle 10.4. 1996.

¹²³ FSC Website: FSC Principles and Criteria. Available at <https://ic.fsc.org/principles-and-criteria.34.htm>.

¹²⁴ FSC. The Revised Principles and Criteria. Available at <https://ic.fsc.org/the-revised-pc.191.htm>.

- Boreal and north temperate forests which are naturally composed of only one or few tree species, in which a combination of natural and artificial regeneration is used to regenerate forest of the same native species, with most of the principal characteristics and key elements of native ecosystems of that site, may be considered as natural forest, and this regeneration is not by itself considered as conversion to plantations

Conservation zones and protection areas: Defined areas that are designated and managed primarily to safeguard species, habitats, ecosystems, natural features or other site-specific values because of their natural environmental or cultural values, or for purposes of monitoring, evaluation or research, not necessarily excluding other management activities. For the purposes of the Principles and Criteria, these terms are used interchangeably, without implying that one always has a higher degree of conservation or protection than the other. The term 'protected area' is not used for these areas, because this term implies legal or official status, covered by national regulations in many countries. In the context of the Principles and Criteria, management of these areas should involve active conservation, not passive protection'

Timelines	<p>Cut-off date: Plantations established in areas converted from natural forests after November 1994 shall not qualify for certification. Certification may be allowed in circumstances where sufficient evidence is submitted to the certification body that the manager/owner is not responsible directly or indirectly for the conversion.¹²⁵</p> <p>Implementation period: cannot exceed 5 years.¹²⁶</p>
Geographic Area	<p>FMU management plans must include a description of the forest resources to be managed, environmental limitations, land use and ownership status, socio-economic conditions, and a profile of adjacent lands.¹²⁷ They must also make a full disclosure of forest areas.¹²⁸ Management plans must include maps describing the forest resource base including protected areas, planned management activities and land ownership.¹²⁹</p>
Baselines	<p>FMU management plans must include a description of the forest resources to be managed, environmental limitations, land use and ownership status, socio-economic conditions, and a profile of adjacent lands.¹³⁰ They must also make a full disclosure of forest areas.¹³¹ This means that each applicant must inform the certification body about every other forest area which the same applicant has some degree of management responsibility, including the names and locations of such forests as well as any other information requested by the certification body. This disclosure does not imply commitment to certification of those other forest areas.</p> <p>Management plans must include maps describing the forest resource base including protected areas, planned management activities and land ownership.¹³²</p>
MMRV	<p>Monitoring</p> <p>Environmental Impact Assessments Require:</p> <ul style="list-style-type: none"> • Potential impacts relating to extraction of forest products • Shall have been completed or reviewed/revised within the previous five year period • Size and intensity of operations • Survey of unit to identify and mark on maps any areas representative of ecosystems in their natural state <p>HCV Assessments Require:</p> <ul style="list-style-type: none"> • Identify HCV areas and potential impacts • HCV features must be clearly marked on maps • Conservation zones must be identified and marked on maps • Size and location of conservation zones must be known and not less than 10% of forest management unit • Results of the assessment must be reviewed by individuals with expert knowledge of the listed HCVs and local knowledge of the unit area • Annual monitoring must be done to assess the effectiveness of the measures employed to maintain or enhance applicable conservation attributes <p>Forest Management Plans require:</p> <ul style="list-style-type: none"> • Clearly identify actions to be taken to mitigation or reduce environmental impacts identified in assessments • Procedure to review and evaluate potential environmental impacts and record actions to be taken to mitigate or reduce them on a site-by-site basis prior to the commencement of site-disturbing practices • Up-to-date list of rare, threatened and endangered species • Documented and implemented a scientifically valid system of monitoring key ecological indicators across the unit's system of conservation zones • Up-to-date information or estimates of scale and nature of any hunting, fishing, trapping or collected permitted in unit with information to demonstrate they do not exceed replacement levels • Prescriptions in place to protect representative examples of ecosystems within conservation zones • Reference sites of conservation zones shall be identified and clearly marked on maps and monitored at least once a decade to identify and evaluate long term changes • Written guidelines to control erosion and minimize forest damage during harvesting, road construction and other mechanic disturbances and evidence that guidelines are implemented • Clearly identify any parts of the unit that are scheduled for conversion from natural or semi-natural forests to plantation or non-forest use over the next five year period • Management plan must provide:

¹²⁵ FSC Principles and Criteria for Forest Stewardship, Principle 10.9. 1996.

¹²⁶ FSC General Requirements for FSC accredited Certification Bodies, 1996.

¹²⁷ FSC Principles and Criteria for Forest Stewardship, Principle 7.1. 1996.

¹²⁸ FSC Partial Certification of Large Ownerships, 2000.

¹²⁹ FSC Principles and Criteria for Forest Stewardship, Principle 7.1. 1996.

¹³⁰ FSC Principles and Criteria for Forest Stewardship, Principle 7.1. 1996.

¹³¹ FSC Partial Certification of Large Ownerships, 2000.

¹³² FSC Principles and Criteria for Forest Stewardship, Principle 7.1. 1996.

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- o Management objectives
- o Description of forest resources to be managed, environmental limitations, land use and ownership status, socio-economic conditions and a profile of adjacent lands
- o Description of silvicultural and/or other management system, based on the ecology of the forest in question and information gathered through resource inventories
- o Rationale for rate of annual harvest and species selection
- o Provisions for monitoring of forest growth and dynamics
- o Environmental safeguards based on environmental assessments
- o Plans for the identification and protection of rare, threatened and endangered species
- o Clear and accessible maps describing the forest resource base including protected areas, planned management activities and land ownership at appropriate scales for their respective purposes
- o Description and justification of harvesting techniques and equipment to be used
- o Specific consideration of HCV areas and specific measures to be taken to maintain or enhance them
- Enterprises shall have a formal system to identify and review new scientific and technical reports that are relevant to its forest management, and can show that these have been taken into account in the most recent revision of its management plan and supporting documents
- Monitoring shall be conducted – appropriate to the scale and intensity of forest management – to assess the condition of the forest, yields of forest products, chain of custody, management activities and their social and environmental impacts.
- The frequency and intensity of monitoring should be determined by the scale and intensity of forest management operations as well as the relative complexity and fragility of the affected environment. Monitoring procedures should be consistent and replicable over time to allow comparison of results and assessment of change.
- Forest management should include the research and data collection needed to monitor at a minimum the following indicators;
 - o Yield of all forest products harvested:
 - Forest enterprise shall collect and maintain data on the quantity of each forest product harvested within the unit, updated on at least a monthly basis
 - o Growth rates, regeneration and condition of the forest:
 - Pre- and post-harvest inventory shall be carried out for all harvested areas
 - Period general inventory of forest stock and condition covering the whole area of production forest on a rolling basis
 - Establish a system of permanent sample plots, sufficient to provide information on forest condition and growth in the long term
 - o Composition and observed changes in flora and fauna:
 - Documented system for collecting data in the presence of key species of fauna within the unit, sufficient to identify changes over time
 - o Environmental and social impacts of harvesting and other operations:
 - Documented program for collecting data sufficient to demonstrate the maintenance or otherwise of HCVs
- Results of monitoring shall be incorporated into the implementation and revision of the management plan
- Managers must be able to demonstrate how the results of monitoring have influenced subsequent changes to the management plan and associated documents

Management plans must include provisions for monitoring of forest growth and dynamics, and must be periodically updated to incorporate the results of monitoring or new scientific and technical information.¹³³ FMUs are also required to document the “chain of custody” to ensure traceability.¹³⁴

Measurement

No information

Reporting

While respecting the confidentiality of information, forest managers must report publicly a summary of the FMU’s management plan and a summary of the results of monitoring indicators.¹³⁵

Verification

Certification bodies evaluate compliance with the FSC Principles and Criteria according to the applicable standard. Many countries have developed national standards, but for those without a national standard the certification body creates and applies Adapted Standards.¹³⁶ International Generic Indicators are being developed to ensure consistency across these Adapted Standards.

While assessments (including site visits) are required at least once annually for all certificate holders, the frequency and intensity of monitoring is determined by the scale and intensity of forest management operations as well as the relative complexity and fragility of the affected environment.¹³⁷ For a certificate lasting 5 years, four surveillance evaluations must take place before the certification expires. Small and Low Intensity Managed Forests (SLIMF), only require field surveillance at least once at the end of the first year of certification, and at least once during the period of validity.

During surveillance of an FMU, the certification body must review any changes to the forest area in the scope of the certificate, including additions, exclusions or FMU boundary changes.¹³⁸ So that results and assessments of change can be compared, monitoring procedures should be consistent and replicable over time, and must monitor, at a minimum, the following:

- Yield of all forest products harvested
- Growth rates, regeneration and condition of forest

¹³³ FSC Principles and Criteria for Forest Stewardship, Principle 7.2. 1996.

¹³⁴ Id., Principle 9.4.

¹³⁵ FSC Principles and Criteria for Forest Stewardship, Principle 7.4 and 8.5. 1996.

¹³⁶ FSC IGI Website: What does this affect? Available at <http://igi.fsc.org/what.7.htm>.

¹³⁷ FSC Principles and Criteria for Forest Stewardship, Principle 8.1. 1996.

¹³⁸ FSC Forest Management Evaluations, 2009.

- Composition and observed changes in flora and fauna
- Environmental and social impacts of harvesting and other operations
- Costs, productivity and efficiency of forest management

For evaluation of a group or multiple FMUs, not all areas of the FMU are evaluated. A sample size is calculated by applying the formula $X = 0.8 \cdot \sqrt{y}$ (where y = all FMUs in the scope of certification).¹³⁹ It is also not necessary to each sampled unit to be measured against all requirements of the standard, as long as the set of FMUs as a whole are assessment against all requirements of the applicable Forest Stewardship Standard.

The certification body shall classify the FMUs included in the scope of evaluation as sets of "like" FMUs for the purpose of sampling, which must be selected to minimize variability in terms of: (a) forest types—natural, semi-natural v. plantation; (b) FMU size class; and (c) application national or regional Forest Stewardship Standard.

However, certification bodies are required to evaluate plantations larger than 10,000ha, non-plantation forest types larger than 50,000ha, and FMUs with HCV areas against all elements of specific Forest Stewardship Standard criteria.

When verifying a FMU's compliance with the relevant FSC Standards, certification bodies may consider (but are not required to consider) documents such as maps, wildlife evaluation records, environmental impacts monitoring records, results of monitoring forest growth and health, and harvesting and production records.

Chain of Custody

Individual Chain of Custody:¹⁴⁰ for individual companies that manufacture and trade FSC certified forest products.

Multiple Site Chain of Custody: small enterprises may form or join a group of operations and apply for Group Chain of Custody certification. Larger companies operating at multiple locations can, if they comply with certain requirements, choose to apply for Multi-site Chain of Custody Certification.

Project Certification: individual objects or buildings of any size or scale that are built or renovated on a one-off basis can achieve FSC certification. The certification sets the requirements for their use of FSC certified wood and post-consumer reclaimed wood material and products.

For a product to be claimed as FSC certified through a product label or sales documentation there must be an unbroken chain of certified organizations covering every change in legal ownership of the product from the certified forest up to the point where the product is finished or sold to retail (1. Pass on the FSC Claim to subsequent customers through sales and delivery documents; 2. Apply the FSC label on-product; 3. Process or transform FSC certified products, e.g., manufacturing, repackaging, relabeling, adding other forest-based components to the product).

Those exempt from CoC certification include: 1. Retailers selling to end-users; 2. Individual or organizational end-users of FSC certified products; and 3. Organizations providing services to certified organizations without taking legal ownership of the certified products (e.g., agents and auction houses, logistics companies storing products, contractors operating under outsourcing agreements).

Product groups include FSC 100%, FSC Mix, FSC Recycled or FSC Controlled Wood. Organizations must categorize all inputs used; maintain an up-to-date record of all suppliers supplying materials used; must comply with certain requirements for the purchase of non-certified materials; keep records of material receipt and storage in line with requirements; determine material balances; keep records of sales and delivery of all products in line with FSC requirements; labelling; and outsourcing.

There is a percentage system and a credit system that can be used for mixed and recycled products.

Subsidiary relationships

Large enterprises are encouraged to commit themselves to certification of their entire holdings.¹⁴¹ FSC does not require a forest management enterprise to certify all of its forest operations, nor agree to a timetable for such evaluation, to have part of its operations certified.

It is expected that producers have a significant part of their production forests certified by an FSC-accredited certification body or be certified within a reasonable time frame. Normally this will not exceed two years. FSC must be satisfied that the entire operation will conform to FSC requirements within a reasonable timeframe.

There are limited circumstances where a FMU may excise specific areas from the scope of evaluation, one requirement being that the excised area is non-controversial (e.g., HCVs maintained and HCV forests not harvested, no harvesting of endangered forest areas, no planting of genetically modified trees, no illegal harvesting, no conversion of natural forest to plantations or non-forest uses).

Partial certification is not available for Chain of Custody certification.

Noncompliance

Contracts between certification bodies and FMUs must allow the certification body to suspend and/or withdraw a certification if it believes the client is not in conformance with the FSC Standards.¹⁴² If a certification body receives specific information or allegations of non-conformity, they must investigate and evaluate to determine if the claim is valid and, if so, whether it constitutes a major or minor non-conformity.¹⁴³ Where a certification body finds a FMU does not meet FSC requirements, corrective action requests are issued and described in certification reports.¹⁴⁴ If a certification body suspends or withdraws a certificate, it must also update the status of the certificate in the FSC database, along with the effective date and reason of suspension or withdrawal, within 3 business days of suspension or withdrawal.

¹³⁹ FSC Forest Management Evaluations, 2009.

¹⁴⁰ <https://ic.fsc.org/chain-of-custody.80.htm>

¹⁴¹ FSC Partial Certification of Large Ownerships, 2000.

¹⁴² FSC General Requirements for FSC Accredited Certification Bodies, 1996.

¹⁴³ Forest Management Evaluations, 2009.

¹⁴⁴ FSC Website: Internally generated data. Available at <https://ic.fsc.org/internally-generated-data.183.htm>.

FSC does not consider noncompliance in forest areas other than the one submitted for assessment a sufficient reason to withdraw certification.¹⁴⁵ It is determined on a case-by-case basis whether the noncompliance is of the “magnitude and frequency” that it constitutes a lack of commitment to the Principles and Criteria to the extent that a certificate will be suspended or withdrawn.

1.6 Global Good Agricultural Practice (Global GAP)

Overview: Formerly known as EUREPGAP, Global GAP is a private sector body that sets voluntary standards for the certification of agricultural products by establishing a standard for Good Agricultural Practice (GAP).¹⁴⁶

Objective: The GLOBAL GAP standards help producers comply with widely accepted criteria for food safety, sustainable production methods, worker and animal welfare, and responsible use of water, compound feed and plant propagation materials.¹⁴⁷ GLOBAL GAP is an assurance program, translating consumer requirements into Good Agricultural Practice in a rapidly growing list of countries – currently more than 100. There are two groups of members: producer / supplier members, and retailer / food services members.

Commodity: Fruit and vegetables, flowers and ornamentals, coffee, tea, combinable crop, aquaculture, and livestock

Registry: <https://database.globalgap.org/globalgap/search/SearchMain.faces?init=1>

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity	Farms and producers
Environmental Targets	<p>The Global GAP Control Points and Compliance Criteria (CPCC) are modular-based, consisting of: the all farm base module; the scope module; and the sub-scope module.¹⁴⁸ The all farm base module defines all requirements that all producers must comply with to gain certification. The scope module defines criteria based on the food production sectors (crops, livestock and agriculture). The sub-scope module defines the requirements for specific products.</p> <p>All Farm Base</p> <p>There must be a written action plan that aims to enhance habitats and maintain biodiversity on the farm.¹⁴⁹ This can be an individual activity or a regional activity. The action will include knowledge of crops, conservation sites, water supplies, impacts on other users, etc. (Minor Must).</p> <p>There should be a plan to convert unproductive sites (low lying wet areas, woodlands, headland strip or areas of impoverished soil, etc.) and identified areas that give priority to ecology into conservation areas where viable for the encouragement of natural flora and fauna (Recommendation).¹⁵⁰</p> <p>Aquaculture</p> <p>An Environmental and biodiversity Management Plan is required for all farms, which must incorporate regular environmental monitoring.¹⁵¹ This is based on a mandatory Environmental Impact Assessment and Environmental Risk Assessment (Major Must).¹⁵²</p> <p>The farm site or related activities cannot be established in a Protected Area (PA) as defined by IUCN categories Ia through IV, or areas defined under international conventions (RAMSAR or World Heritage).¹⁵³ If within PA IUCN category V or VI, consent of the PA management is required (Major Must).</p>

¹⁴⁵ FSC Partial Certification of Large Ownerships, 2000.

¹⁴⁶ Global GAP Website: Who We Are. Available at: http://www.globalgap.org/uk_en/who-we-are/.

¹⁴⁷ Id.

¹⁴⁸ Global GAP Website: For Producers. Available at: http://www.globalgap.org/uk_en/for-producers/livestock/.

¹⁴⁹ Control Point and Compliance Criteria – All Farm Base, Control Point AF 6.1.1. 2011.

¹⁵⁰ Id., Control Point AF 6.2.1.

¹⁵¹ Control Points and Compliance Criteria – Aquaculture Module, Control Point AB 10.1.5. 2011.

¹⁵² Id., Control Point AB 10.1.4.

¹⁵³ Id., Control Point AB 10.4.1.

EIA's must include evidence that the farm was not established in a PA or HCV Area, including: record of land use/status and habitat types prior to farm building, presence of IUCN Red list species, and remote sensing/satellite imagery.¹⁵⁴ The information must be made public (Major Must).

Farms established between May 1999 and April 2008 within mangroves or HCV areas must prove that they are in the process of being retired, rehabilitating the area and if necessary compensating surrounding communities. This must be completed over a maximum of 3 years, and be accompanied by a Rehabilitation Plan containing at least the objective, time frame, means, activities, expected output and financing and compensation provision with local communities.¹⁵⁵ This information must be made public (Major Must).

There must also be a Restoration Plan containing at least the objective, means, activities, expected output, financing and compensation provisions with local communities, and evidence of recent funding of restoration plans (Major Must).¹⁵⁶

The removal of mangrove vegetation is only allowed for channels or piping for sites above inter-tidal areas, and only when official permits of the public sector have been granted and when a rehabilitation plan is part of the permit (Major Must).¹⁵⁷

Crops

It is recommended that farms maintain soil maps with the types of soil for each site based on a soil profile or soil analysis or local cartographic soil-type map.¹⁵⁸ It is a Minor Must requirement to show evidence of practices and remedial measure to minimize soil erosion.¹⁵⁹

Guidance documents:

- Global GAP provides guides for smallholders on complying with the various control points for Global GAP standards and modules.¹⁶⁰
- Smallholders are also given checklists for each module so that they can carry out self-assessments prior to certification and verification.¹⁶¹
- It is possible to have national interpretations of the modules, along with guidelines on complying with those national interpretations.¹⁶²

Level of ambition: To achieve compliance, a producer must be in 100% compliance with Major Must control points, 95% compliance with Minor Must control points, and no specified minimum of Recommended control points.¹⁶³ The All Farm Base module has 1 minor must environment and conservation requirement, 3 recommended and 0 major must. The Aquaculture Base module has 18 major must environment and biodiversity protection requirements, 4 minor must and 1 recommended. The Crops Base and Livestock Base modules have 0 environmental and conservation requirements. Requirements also vary for sub-scope.

Definitions	<p>High Conservation Value Areas:¹⁶⁴</p> <ul style="list-style-type: none"> • Support endemic, rare, declining habitats/species/genotypes • Support genotypes and species whose presence is a prerequisite for the persistence of other species • Act as a buffer, linking habitat or ecological corridor, or play an important role in maintaining environmental quality • Have important seasonal uses or are critical for migration • Support large or continuous areas of previously undisturbed habitat • Act as a refuge for biodiversity during climate change, enabling persistence and continuation of evolutionary processes • Support biodiversity for which mitigation is difficult or its effectiveness unproven including habitats that take a long time to develop characteristic biodiversity • Are currently poor in biodiversity but have potential to develop high biodiversity with appropriate intervention.
Timelines	<p>Cut-off date: April 2008 aquaculture farms cannot be established in areas that were previously within a mangrove system, natural inter-tidal zone or HCV area (values 1-4).¹⁶⁵</p> <p>Certification Period: 12 months¹⁶⁶</p>
Geographic Area	No information
Baselines	<p>Environmental Impact Assessments (EIAs) must address biodiversity, and must be completed for the Aquaculture module. EIAs have several steps:¹⁶⁷</p> <ul style="list-style-type: none"> • Screening (triggers: impacts on protected areas; impacts on other areas important for biodiversity/HCVAs; activities posing a threat to biodiversity; areas providing important ecosystem services, including wetlands and relatively undisturbed or characteristic habitat)

¹⁵⁴ Id., Control Point AB 10.4.2.

¹⁵⁵ Id., Control Point AB 10.4.3.

¹⁵⁶ Id., Control Point AB 10.4.4.

¹⁵⁷ Id., Control Point AB 10.4.5.

¹⁵⁸ Control Points and Compliance Criteria – Crops Base, Control Point CB 4.1. 2011

¹⁵⁹ Id., Control Point CB 4.3.

¹⁶⁰ See e.g., Aquaculture – Guide for Smallholders – All Farm Base Module. 2012.

¹⁶¹ See e.g., Integrated Farm Assurance – All Farm Base Crops Base Checklist. 2013.

¹⁶² See e.g., Interpretation Guideline THAILAND Integrated Farm Assurance Control Points and Compliance Criteria, 2012.

¹⁶³ Id.

¹⁶⁴ Control Points and Compliance Criteria – Aquaculture Module, Annex II. 2011.

¹⁶⁵ Control Points and Compliance Criteria – Aquaculture Module, Control Point AB 10.4.2. 2011.

¹⁶⁶ General Regulations Part I – General Rules. 2011.

¹⁶⁷ Control Points and Compliance Criteria – Aquaculture Module, Annex II. 2011.

ANNEX I: Commodity-based VSIs

- Scoping and Baseline study (it is good practice to produce a scoping report, which includes: type of project and possible alternatives; analysis of opportunities and constraints for biodiversity, including “no net biodiversity loss” or “biodiversity restoration” alternatives; expected changes in flora and fauna resulting from activities; available information on baseline conditions)
- Impact prediction and evaluation
- Mitigation
- Review and decision-making
- Environmental management plan (including monitoring, evaluation and auditing plans)

Environmental impact statement

There should be a commitment within the conservation plan to undertake a baseline audit of the current levels, location, condition, etc. of the fauna and flora on the farm so as to enable actions to be planned.¹⁶⁸ (Recommended).

MMRV

Monitoring

Environmental Impact Assessments require:

- There must be an action plan documenting environmental conservation (individual, regional or national)
- Baseline audit of current levels, location, condition, etc. of the fauna and flora on the farm, and within the conservation plan there must be a clear list of priorities and actions to enhance habitats
- Plan to convert unproductive sites and identified areas that give priority to ecology into conservation areas where viable

An effective Environmental and biodiversity Management Plan must be in place which must incorporate regular environmental monitoring. Self-assessments must be carried out by the producer at least annually before the initial or surveillance inspections against the complete checklist of relevant scopes and sub-scopes.¹⁶⁹

Measurement

No information

Reporting

The completed checklist must be available for review on site at all times.¹⁷⁰

Verification

External inspections must be done annually.

Chain of Custody

All Global GAP certified products that change legal ownership and/or are subject to handling activities/processing must be compliant with the Global GAP Chain of Custody requirements to be sold with the Global GAP claim.¹⁷¹ If products are subject to outsourced handling activities/processing, certain requirements (AF.4, AB.12 and AB.13) shall be audited for products to be sold with the Global GAP claim.

Organizations must ensure that all products are derived from Global GAP certified sources, independent of product status, whether they are purchased or subject to process outsourcing. Global GAP numbers must be provided for all inputs. Non-certified inputs must be documented separately from certified inputs, with information on volumes and weight. Sales invoices and, where appropriate, other documentation related to sales of certified material shall include the GGN of the CoC certificate holder and contain a reference to the Global GAP certified status. Records relevant to CoC must be retained for at least 3 years and must include: purchase orders, contracts, invoices and lists of approved suppliers goods and records of receipt inspection; stock records of raw materials and finished product; production records; and sales orders received and invoices issued by the organization being assessed.

The organization must be able to justify mass-balance calculations using measured yields from processing and accurate input/output weights. All weight and yield measurements are verified at least every 3 months. There are also requirements for transport conditions and post-harvest operations for aquaculture products.

Subsidiary relationships

Multisite certification is possible for an individual producer owning several production locations or management units that do not function as separate legal entities.¹⁷²

Noncompliance

When a non-conformance (NC) is detected, the Certification Body shall apply a sanction (warning, suspension of a product or cancellation).¹⁷³ A Warning is issued for all types of NC detected, after which the NC shall be resolved within the next three months. A subsequent inspection then takes place, and if further NC is detected it must be addressed within 28 days, or a longer period if the NC is for a Major Must. After a Warning there is a Suspension, and if the NC is not resolved within the time given the CB applies a Cancellation of the product certification. One cancelled, the certification cannot be received again within the next twelve months.

1.7 IFOAM – Organics International

Overview: IFOAM – Organics International (IFOAM-OI) is the umbrella organization for the global organic agriculture movement, which aims to achieve worldwide adoption of ecologically, socially and economically sound systems based on the Principles of Organic Agriculture. The IFOAM five activity

¹⁶⁸ Control Point and Compliance Criteria – All Farm Base, Control Point AF 6.1.2. 2011.

¹⁶⁹ General Regulations Part I – General Rules. 2011.

¹⁷⁰ Id.

¹⁷¹ http://www.globalgap.org/export/sites/default/content/galleries/documents/130315_gg_ifa_cpcc_coc_v4_02_en.pdf

¹⁷² General Regulations Part I – General Rules. 2011.

¹⁷³ General Regulations Part I – General Rules. 2011.

pillars are organic stakeholders, advocate long-term social and ecological change, facilitate production and trade, assist organic development, and train the next generation of leaders.¹⁷⁴ It has over 800 Affiliates (Members, Associates, and Supporters) in more than 120 countries.¹⁷⁵

Objective: IFOAM-OI's mission is to embrace the worldwide adoption of Organic Agriculture in its full diversity.¹⁷⁶ The IFOAM Family of Standards as well as IFOAM Accreditation guarantee to buyers, government authorities, other control agencies, and the public, that a product has been produced within a system that conforms to internationally recognized standards for organic production, processing, and certification.¹⁷⁷

Commodity: Agricultural consumer goods

Registry: <http://www.ifoam.bio/en/news/2015/02/04/membership-directory-2015-now-available-download>

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity	Producers
Environmental Targets	<p>Operators must design and implement measures to maintain and improve landscape and enhance biodiversity quality, by maintaining on farm, wildlife, refuge habitats or establishing them where none exist (e.g., extensive grasslands, hedges, hedgerows, edges between agriculture and forest land, groups of trees and/or bushes, forest, woodland, ecologically rich fallow land, areas with ruderal flora, wildlife corridors that provide linkages and connectivity of native habitat).¹⁷⁸</p> <p>Clearing or destruction of HCV Areas is prohibited, and farming areas installed on HCV Area-cleared land in the 5 years prior to application are not considered compliant with certification standards.</p> <p>Organic management sustains and prevents degradation of common biotic and abiotic resources, including ... forests and neighboring land.</p> <p>Wild harvested products shall only be derived from a sustainable growth environment, and products shall not be harvested at a rate exceeding the sustainable yield of the ecosystem or threatens the existence of plant, fungal or animal species.</p> <p>Level of ambition: All requirements must be complied with.</p>
Definitions	<p>Biodiversity: the variety of life forms and ecosystem types on Earth. Includes genetic diversity (diversity within species), species diversity (i.e. the number and variety of species) and ecosystem diversity (total number of ecosystem types).¹⁷⁹</p> <p>High Conservation Value Areas: areas that have been recognized as having outstanding and critical importance due to their environmental, socioeconomic, biodiversity or landscape values.</p> <p>Sustainable: use of a resource in such a way that the resources is not depleted or permanently damaged, hence is not used faster than it can be regenerated.</p>
Timelines	<p>Cut-off Date: 5 years prior to application for certification (no clearing of HCVA's).¹⁸⁰</p> <p>Certification Period: Up to 5 years¹⁸¹</p>
Geographic Area	No information
Baselines	No information
MMRV	<p>Monitoring No information</p> <p>Measurement No information</p> <p>Reporting No information</p> <p>Verification</p>

¹⁷⁴ IFOAM Website: What we do. Available at: <http://shop.s889.c55.freistilbox.net/en/what-we-do/our-strategy>.

¹⁷⁵ The Organic Movement Worldwide Directory of IFOAM Affiliates 2015.

¹⁷⁶ IFOAM Position: The Full Diversity of Organic Agriculture: What We Call Organic.

¹⁷⁷ IFOAM Norms for Organic Production and Processing. 2012.

¹⁷⁸ IFOAM Norms for Organic Production and Processing, Requirement 2.1.1. 2014.

¹⁷⁹ IFOAM Norms for Organic Production and Processing. 2014.

¹⁸⁰ IFOAM Norms for Organic Production and Processing, Requirement 2.1.2. 2014.

¹⁸¹ Standards Map: IFOAM Standard. Available at: http://search.standardsmap.org/assets/media/IFOAMStandard/English/AtAGlance_EN.pdf.

Operators must be inspected at least annually.¹⁸² A risk assessment is taken into account to determine the frequency of additional inspections.

Chain of Custody	<p>Handlers and processors shall not co-mingle organic products with non-organic products, and must ensure traceability in the organic processing and handling chain. All organic products shall be clearly identified as such and processed, stored and transported in a way that prevents substitution by or contact with conventional products through the entire process. When non-organic products are prepared or stored in the preparation unit, the operator shall inform the control body. The handler or processor shall take all necessary measures to prevent organic products from being contaminated by pollutants and contaminants, including the cleaning, decontamination, or if necessary disinfection of facilities and equipment.</p> <p>Any entity in the chain of custody that has produced, processed, packaged, or labeled an organic product shall have been certified.¹⁸³ The production chain includes the farmers, storage units, processing units, packers, brokers, wholesalers, transport companies and retailers. Certification bodies shall conduct risk assessments to determine the necessity for, or frequency of, inspection of all storage facilities including port facilities. The certification body shall require that the party owning the product at the point of transport shall be responsible for maintaining the organic integrity in the transport process, unless transport operations are certified in their own capacity.</p>
Subsidiary relationships	No information
Noncompliance	The certification body makes a subjective determination of whether nonconformities are major or minor. ¹⁸⁴ Minor nonconformities do not automatically preclude certification. Minor nonconformities turn into major nonconformities if not addressed within one year. Major nonconformities may lead to suspension or withdrawal of certification of either a certain product or the entire operator. ¹⁸⁵

1.8 International Sustainability and Carbon Certification (ISCC)

Overview: Since its establishment in 2006, the ISCC has operated as an international multi-stakeholder system, bringing together experts from different biomass supply chains (feedstock growers, processors, traders and end-users) with research experts and representatives from environmental and social organizations.¹⁸⁶

Objective: ISCC certification can be applied to meet legal requirements in the bioenergy market as well as to demonstrate the sustainability and traceability of feedstock in the food, feed and chemical industries.¹⁸⁷

Commodity: Biofuels and other markets (food, feed, bio plastics, solid biomass, etc.)

Registry: <http://www.iscc-system.org/en/certificate-holders/all-certificates/>

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity	Farms
Environmental Targets	<p>There are two separate sets of sustainability requirements: ISCC EU/DE (biofuels market) and ISCC PLUS (other markets).¹⁸⁸ The ISCC sustainability requirements for biofuels are separated into DE and EU: DE certification meets the requirements of both the German sustainability ordinances and the EU Renewable Energy Directive (EU RED), while EU certification is based on the requirements set in the EU RED.¹⁸⁹</p> <p>Biomass cannot be produced on land with high biodiversity value, high carbon stock, or on peatland after January 2008.¹⁹⁰</p> <p>Field conservation techniques must be used to reduce the possibility of soil erosion, and a map of fragile soils must be available.¹⁹¹</p> <p>ISCC requires a minimum GHG emissions saving of 35% (rising to 50% in January 2017 and 60% in January 2018).¹⁹²</p>

¹⁸² IFOAM Norms for Organic Production and Processing, Requirement 7.5.2. 2014.

¹⁸³ http://www.ifoam.bio/sites/default/files/ifoam_norms_version_july_2014.pdf

¹⁸⁴ Id., 7.9

¹⁸⁵ Id.

¹⁸⁶ ISCC Website: About ISCC. Available at: <http://www.iscc-system.org/en/iscc-system/about-iscc/>.

¹⁸⁷ Id.

¹⁸⁸ ISCC Website: Process Overview. Available at: <http://www.iscc-system.org/en/certification-process/process-overview/>.

¹⁸⁹ ISCC 201 System Basics for the Certification of Sustainable Biomass and Bioenergy V 1.16. 2011; ISCC 201 System Basics for the Certification of Sustainable Biomass and Bioenergy V 2.3-EU. 2011.

¹⁹⁰ ISCC 202 Sustainability Requirements for the Production of Biomass (DE), Control Points 4.1.1, 4.1.3, 4.1.4. 2011.

¹⁹¹ Id., Control Point 4.2.3.

¹⁹² ISCC 205 GHG Emissions Calculation Methodology and GHG Audit. 2011.

There is an optional add-on for ISCC PLUS, where agricultural producers may comply with specific criteria on Environmental Management and Biodiversity.¹⁹³ To comply, they must set up a Soil Management Plan, Water Management Plan, Energy Management Plan, and Biodiversity Management Plan.

The Biodiversity Management Plan has three annual phases of implementation for Requirements. First year requirements include identification of protected areas (official) and high conservation value areas, the size of ecotones and buffer zones, and damage to native flora and fauna is prohibited. Second year requirements include the area and geo-coordinate location, identification of HCV areas and protected areas, identification of risks to ecotones and buffer zones, identification of risks to the landscape, identification of potential risks to surrounding areas, current management practices for risks identified. Third year requirements include reporting of the start and end date of the implementation of risk management measures, along with the geo-coordinate location of the area, the size of the area, and identified risks.

Guidance documents:¹⁹⁴

- System Basics
- Sustainability Requirements – Requirements for the Production of Biomass
- National and Regional Initiatives Standards

Level of ambition: To be certified under the sustainability requirements, all Major Musts have to be complied with along with 60% of the Minor Musts.¹⁹⁵ Within the two environmental sustainability principles, there are 34 major musts and 20 minor musts.

Definitions

Forest land: primary forests and other natural areas that are covered with native tree species and do not show clearly visible indications of human activity and the ecological processes are not significantly disturbed.¹⁹⁶

Native trees: trees which grow within their natural geographical range on sites under climatic conditions to which they have adapted naturally and without human interference. The following do not count as native: species introduced by humans that would not occur otherwise; species and breeds that would not occur on the site or under climatic conditions, even if sit or conditions generally fall within the larger geographical range of the species.

Wetlands: areas covered with or saturated by water permanently or for a significant part of the year, and are in particular areas of marsh, fen, peatland or water, whether natural or artificial, temporary or permanent, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six meters.

Forested areas/Continuously Forested areas: areas that stretch more than 1 hectare with trees higher than 5 meters and a canopy cover of more than 30% (or able to reach those thresholds); stretch over more than 1 hectare with trees higher than 5 meters and a canopy cover of between 10% and 30% (or able to reach those thresholds) unless carbon stock before and after conversion would meet GHG saving requirements; forest according to the respective national legal definition.

Canopy cover: the degree of coverage of an area by tree crowns of a story.

Peatland soils: soils with horizons of organic material of a cumulative thickness of at least 30 cm at a depth of down to 60 cm, of which the organic matter contains at least 20 mass percent of organic carbon in the fine soil.

Land with high biodiversity value: includes forest land, areas designated by law or relevant authority for nature protection, and IUCN areas for the protection of rare, threatened and endangered ecosystems or species.

Land with high carbon stock: includes wetlands and continuously forested areas.

Timelines

Cut-off Date: January 2008¹⁹⁷

Certification Period: one year for elements of the supply chain,¹⁹⁸ three years for small entities, and five years for very small entities.¹⁹⁹

Geographic Area

Description of the agricultural area (lot number, lot size, type of crop) and each lot with geographic coordinates with a precision of 20m for each measuring point (satellite images, polygon, Google Earth).²⁰⁰

Baselines

A recording system must be established for each unit of production, kept in up-to-date condition for at least 3 years with a history of biomass production on all production areas.²⁰¹ This must include at a minimum: description of the agricultural area (lot number, lot size, type of crop) and each lot with geographic coordinates with a precision of 20m for each measuring point (satellite images, polygon, Google Earth).²⁰²

Directive 2009/28/EC contains default values for different types of biofuels to be used in GHG calculation.²⁰³ The default values were

¹⁹³ ISCC PLUS 202-01 Environmental management and Biodiversity. 2013.

¹⁹⁴ ISCC 201 System Basics for the Certification of Sustainable Biomass and Bioenergy. 2010.

¹⁹⁵ ISCC Website: ISCC System Basics. Available at: <http://www.iscc-system.org/en/certification-process/isccsystemdocuments/>.

¹⁹⁶ ISCC 202 Sustainability Requirements for the Production of Biomass (DE), Control Point 4.1.1. 2011.

¹⁹⁷ ISCC 202 Sustainability Requirements for the Production of Biomass (DE & EU), Control Point 4.1.5. 2011; ISCC PLUS 202 Sustainability requirements for the Production of Biomass, Control Point 1.5. 2014.

¹⁹⁸ ISCC PLUS 252 Regulations to Carry Out Audits. 2012.

¹⁹⁹ Small entities are those with one production site that handle a maximum of 500 metric tons of biomass per year or the equivalent amount of liquid biomass. Very small entities are those with one production site that handle a maximum of 250 metric tons of biomass per year or the equivalent amount of liquid biomass. ISCC 201 System Basics for the Certification of Sustainable Biomass and Bioenergy. 2010.

²⁰⁰ Id., Control Point 4.6.2.

²⁰¹ ISCC 202 Sustainability Requirements for the Production of Biomass (DE), Control Point 4.6.1. 2011.

²⁰² Id., Control Point 4.6.2.

²⁰³ ISCC 205 GHG Emissions Calculation Methodology and GHG Audit. 2011.

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developed based on experience from a two year ISCC pilot phase and from the operational phase in 2010. There is no GHG default value for land use change. If default values are used for cultivation, net emissions from land use change always need to be added.

For actual values, the calculation should always be the previous year. Annual average figures can be used, and should include: amount of main product and co-products, amount and type of raw material used, amount of chemicals used, amount of pesticides, the amount of P2O5-, K2O-, CaO- and N-fertilizer, diesel consumption, electricity consumption, thermal energy consumption, process energy source, and amount of wastes.

Reference land use is that in January 2008 or 20 years before the raw material was obtained, whichever was the latest.

MMRV

Monitoring

No information

Measurement

For ISCC EU and ISCC DE, biomass producers, conversion units (conversion of solid biomass into liquid biomass or processing of liquid biomass), and transport and distribution elements of the supply chain each must provide their GHG emission values, either by use of the default values or individually determined values.²⁰⁴ For ISCC PLUS only biomass producers are required to provide GHG emission values. All values must be audited and if actual values for individual calculations are used they must be verified.

Emissions from land use change after January 2008 must be taken into account, as well as when default values are used since they do not include possible GHG emissions or savings from land use change. Land use changes include the six land categories of IPCC (forest land, grassland, cropland, wetlands, settlements and other land), plus perennial crops. Annualized emissions from carbon stock changes caused by land use change are calculated by dividing total emissions equally over 20 years based on the provided formula.

Carbon stock of the land is defined by the mass of carbon in soil and vegetation per unit of land. Overall GHG emissions of a bioenergy supply chain calculated include annualized emissions from carbon stock changes by land-use change, emission saving from soil carbon accumulation via improved agricultural practices, emission saving from carbon capture and geological storage, and emission saving from carbon capture and replacement.

Reporting

Certification bodies must keep a register of all elements of the supply chain to which they have issued certificates.²⁰⁵ Each register must contain at least the names, addresses and registration numbers. Certification bodies must prepare reports after each audit, which contain the surveillance results in detail and submitted to ISCC in a timely manner.²⁰⁶

Verification

For ISCC PLUS certificate holders, audits are done annually, and at least the square root of the supplying companies must be audited annually.²⁰⁷ Audits are also done annually for ISCC EU and ISCC DE certificate holders, and the sample size of suppliers audited is at least 5%.²⁰⁸ For certification, farms must provide evidence for the sustainable origin of produced biomass, and the subsequent elements of the supply chain have to meet particular requirements regarding traceability, mass balance and GHG emission calculation.²⁰⁹

Guidance documents:

- Requirements for Certification Bodies
- Regulations to Carry Out Audits

Chain of Custody

Organizations must comply with the ISCC Requirements for Traceability and Mass Balance Calculation Methodology.²¹⁰ Relevant elements of the production and distribution chain for traceability include: farm/plantation, first gathering point (warehouse or trader buying biomass from farms or plantations and selling to customers), conversion unit (oil mill, ethanol plant, biodiesel plant, refinery), warehouse (storage at first gathering point), trader/warehouse (storage and/or trade after the first gathering point); transport of sustainable products (truck, train, barge or vessel).

Procedures of a company have to be in writing, including: 1. Description of material flow within the supply chain of a company; 2. Organizational structure, responsibilities and authorities with respect to sustainability and chain of custody; and 3. Procedures on traceability and mass balance regarding all requirements of the standards.

The organization must record: operation permit of enterprise including layout and capacities of storage facilities; copies of certificates from all suppliers of sustainable products; records regarding all incoming sustainable products including information about origin and related documents; records of any interval processing of sustainable products including the respective yields/conversion factors; records of all outgoing sustainable products which have been delivered and/or sold and related documents; records on the periodic mass balance calculations based on the above data (maximum period 3 months); contracts related to sustainable products including supplier contracts for services related to sustainable products; records regarding data transfer to the certification system chosen by this company or to the relevant public authority in charge or to the certification body which conducted the audit with respect to this standard. Records regarding internal audits, non-conformities with these standards, related corrective actions and/or identified discrepancies within documentation.

²⁰⁴ ISCC 205 GHG Emissions Calculation Methodology and GHG Audit. 2011.

²⁰⁵ ISCC 251 Requirements on Certification Bodies 2010.

²⁰⁶ ISCC 252 Regulations to Carry Out Audits. 2010.

²⁰⁷ ISCC PLUS 252 Regulations to Carry out Audits. 2012.

²⁰⁸ ISCC 252 Regulations to Carry Out Audits. 2010.

²⁰⁹ ISCC 201 System Basics for the Certification of Sustainable Biomass and Bioenergy. 2010.

²¹⁰ http://www.iscc-system.org/index.php?eID=tx_nawsecuredl&u=0&file=fileadmin/content/documents/ISCC-Zertifizierungs-Prozess/Zertifizierung/Systemdokumente/ISCC_EU/ISCC_EU_203_EN.pdf&t=1423949670&hash=f26ff869c1e4be571140c87ff9ea682bc204541c

Internal audits must be done annually on incoming products. If an element in the supply chain is conducting a process that has an impact on the physical properties of a product records must be maintained on: process description; quantities of raw material; quantities of co-products, if required; quantities of residues of waste, if required; yields/conversion factors; allocation factors; GHG process emissions; date of production, if needed.

There are also delivery note and audit requirements for outgoing sustainable products, and specific requirements for each stage of the production and distribution chain. All elements of the supply chain identified in the traceability standard are also subject to the mass balance calculation methodology.²¹¹

Guidance documents:

- Requirements for Traceability
- Mass Balance for Calculation Methodology

Subsidiary relationships

Certificates always relate to a legal entity and a location, for example, a single certificate can cover an oil mill and refinery owned by the same company and located in the same place.²¹² If the oil mill and refinery are separate legal entities (even if the parent company is identical) then two certificates are required.

Guidance documents:

- Group Certification, GHG Emissions Calculation Methodology and GHG Audit

Noncompliance

If more than one of the entities from the sample is noncompliant, the initial sample must always be doubled.²¹³ Suppliers that were audited as noncompliant can no longer be claimed as sustainable until the companies/sites pass a successful audit on their own initiative.

In case of a serious violation against the ISCC specifications, the certification body may withdraw the certificate.²¹⁴ Certificates cannot be withdrawn retrospectively.

Guidance documents:

- Complaints, Appeals and Arbitration

1.9 Naturland

Overview: Naturland is an international organization that aims to promote production, processing and marketing of high quality organic products.²¹⁵ Naturland is a member of the international umbrella organisation the International Foundation for Organic Agriculture Movements, which issues binding standards in the fields of production as well as processing. Naturland standards are stricter than the EU's regulation on organic farming (EC nos. 834/2007 and 889/2008). The organisation also offers the Naturland Fair Trade Standards as a voluntary supplementary option for Naturland certified producers, processors and traders.

Objective: To promote organic agriculture and protect herewith the existence of smallholders.

Commodity: Organic agricultural products (coffee, oil, tee, vegetables, fruits)

Registry: <http://www.naturland.de/certification.html>

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity	Producers, processors and traders
Environmental Targets	Only the use of indigenous tree species is permitted for planting and seeding. ²¹⁶ Aside from plantations, farms should strive for only natural regeneration of existing indigenous trees.

²¹¹ http://www.iscc-system.org/index.php?eID=tx_nawsecuredl&u=0&file=fileadmin/content/documents/ISCC-Zertifizierungs-Prozess/Zertifizierung/Systemdokumente/ISCC_EU/ISCC_EU_204_EN.pdf&t=1423949670&hash=25756b1f9f5225baa509796cf708b9d67c0f50d

²¹² ISCC 201 System Basics for the Certification of Sustainable Biomass and Bioenergy. 2010.

²¹³ ISCC PLUS 252 Regulations to Carry out Audits. 2012.

²¹⁴ ISCC 201 System Basics for the Certification of Sustainable Biomass and Bioenergy. 2010.

²¹⁵ Naturland Website: About Naturland. Available at: <http://www.naturland.de/aboutus.html>.

²¹⁶ Naturland Standards for Organic Forest Management, Principle 1. 2014.

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Any afforestation must be approved by Naturland.²¹⁷ Extensive treatment of and driving on the forest floor, including drainage measures, are not allowed.²¹⁸ The upper soil may only be loosened in exceptional cases and on parts of its surface only after discussion and agreement with Naturland.

The use of trees to be harvested must be done as single tree, stand or group cutting.²¹⁹ Clear cutting and full tree use is prohibited. When using tree groups, the area cut must have a diameter not greater than the height of the neighbouring trees. The method, frequency and intensity of interventions for use must be approved by Naturland on the basis of planning data (e.g., forest management plan, expert opinion on production unit, etc.). The overall natural diversity of species should be preserved and/or fostered.

No more than 10% of the forest floor may be used for driving on.²²⁰ Farms must preserve all rare forest trees, preserve special biotopes beyond the extent to which they are legally protected (e.g., dry areas, forest swamps, moors, well areas, woods around boulders and in ravines), single trees or old forest groups must be excluded from use, and preserve tree monuments, extraordinarily clear-cut individual trees and cultural historical places in the forest.²²¹

Clearing of primary forest and the cultivation of primary organic system (e.g., tundra) is prohibited, and measures to avoid soil erosion must be taken.²²²

Coffee and cocoa must be cultivated in agroforestry systems appropriate to local conditions, under shade trees.²²³

Coffee and cocoa farmers must integrate shade trees in the cultivation system to encourage the important protective functions of trees in tropical ecosystems, including maintain the fertility of the soil, protecting it from erosion, maintaining the water balance, protecting drainage areas, maintaining biodiversity, binding carbon dioxide as a contribution to the protection of the climate, moderating extremes of climate and providing nutrition.

Coffee and cocoa farmers must have management plans laying out the sustainable use of diverse products in the agroforestry system employing shade trees.

Indigenous trees must be used, and the following is recommended for shade trees: at least 70 shade trees per hectare with 40% all-year coverage; at least 12 different varieties of shade trees per hectare, the principal variety not exceeding 60%; and coffee and shade trees should consist of at least 2 tiers, and where there are 3 tiers the top tier must consist of old trees.

Aquaculture producers establishing shrimp farms must protect mangrove plant communities. Any measure carried out that is likely to influence adjacent mangrove forest must be announced to and approved by Naturland.²²⁴ Farms which in part occupy former mangrove areas can be converted to organic aquaculture if the former mangrove area does not exceed 50% of the total farm area. The former mangrove area shall be reforested to at least 50% during a period of maximum 5 years. Harvest of this area is not permitted to be labelled and marketed as an organic product until Naturland's certification committee has confirmed the successful completion of reforestation.

Guidance documents:

- Documents for the various standards, including: Production, Beekeeping, Aquaculture, Organic Forest Management, Sustainable Capture Fishery, Processing, Textiles, Cosmetic Products, Social Responsibility, Naturland Fair Trade Standards, and Comparison with the European Commission Organic Regulation.²²⁵
- Steps to Naturland Certification which describes the steps necessary to comply with the Naturland Standards and obtain certification.

Level of ambition: All requirements must be complied with to obtain Naturland certification.

Definitions	No information
Timelines	Cut-off date: no cut-off date Certification Period: one year ²²⁶
Geographic Area	No information
Baselines	To reduce border effects, reference areas should be as large as possible (at least 20 hectares). ²²⁷ Reference areas representative of the types of stands throughout the whole forest area should be designated for the purpose of recurrently making comparisons between not-managed and well-managed areas. ²²⁸ Forests being predominantly state and/or local authority forests must designate at least 10% of their forest areas as reference areas within three years. Privately owned forests are not obligated to establish their own reference areas, but must familiarize their forest use with

²¹⁷ Id., Principle 2.

²¹⁸ Id., Principle 3.

²¹⁹ Id., Principle 4.

²²⁰ Id., Principle 6.

²²¹ Id., Principle 8.

²²² Naturland Standards on Production, Principle B.I.7. 2014.

²²³ Id., Principle B.IX.3.4.1.

²²⁴ Naturland Standards for Organic Aquaculture, Supplementary regulations for the pond culture of shrimps, principle 1.2. 2014.

²²⁵ Naturland Website: Standards. Available at: <http://www.naturland.de/standards.html#c1370>.

²²⁶ Steps to Naturland Certification. 2010.

²²⁷ Naturland Standards for Organic Forest Management, Principle 9. 2014.

²²⁸ Naturland Standards for Organic Forest Management, Principle 9. 2014.

comparable reference areas.

MMRV	<p>Monitoring Sustainable forest management requires regular inventory-taking and target-oriented planning, and thereafter requires planning data appropriate to the size and intensity of use of the production unit to be produced and approved by Naturland in the form of a forest management plan, or something similar.</p> <p>Measurement No information</p> <p>Reporting Updated records, including for product flow and product sales, must be kept and reported to the association.²²⁹</p> <p>Verification Compliance with the standards will be checked by announced and unannounced site visits and inspections at least once per year. On request, all documents concerning the management of the production unit have to be shown, and all respectively relevant questions have to be answered.</p>
Chain of Custody	<p>The production and value chain is mentioned in the production standard, requiring products to be produced without the use of genetically modified organisms and GMO derivatives throughout the entire chain.²³⁰</p> <p>The production chain is mentioned in the processing standard, requiring organizations to monitor the use of packaging according to Naturland standards throughout the entire supply chain.²³¹ For the textile processing standard, a fully documented quality management system must be produced to cover the whole supply chain (from the production of the natural fibres through each of the processing stages to the final product and the marketing agent legally responsible for the product). Naturland must be notified of any change in supplier, processing stages, auxiliary substances and processors is made, and they must be approved.</p> <p>For the cosmetic processing standard, a total quality management system starting with production of raw materials to the final product and distributor must be introduced, covering the measures implemented by the operation to comply with the code of good manufacturing practices. Naturland must be notified of any change in supplier, processing stages, auxiliary substances and processors is made, and they must be approved.</p>
Subsidiary relationships	<p>If third parties act on behalf of the farmer (e.g., in the preparation, storage, processing and transport of the produce), the farmer has to take measures (such as the conclusion of a subcontracting agreement) to ensure that the standards are implemented and that they can be monitored by Naturland.²³²</p>
Noncompliance	<p>Violations of the standards are prosecuted according to the sanction catalogue (appendix IV in the producer contract).</p>

1.10 Programme for the Endorsement of Forest Certification (PEFC)

Overview: Established in 1999, the PEFC is a non-profit association of promoting sustainable forest management through forest certification. National forest certification systems that meet PEFC sustainability benchmarks can apply for PEFC endorsement. PEFC also provides forest certification (for specific forest lots), chain-of-custody certification (for continuous production wood products industry), and project certification (for discrete, one-off projects using timber or other wood products). PEFC is represented in 38 countries, certifies 247 million hectares from over 750,000 forest owners, and covers over two-thirds of the world's certified forest areas.²³³ Over 15,000 companies have achieved PEFC Chain of Custody certification.²³⁴

Objective: PEFC therefore facilitates the development of and endorses national forest certification systems that are independently developed and owned by local stakeholders. This ownership is key to the success of forest certification as it empowers local people to manage forests in compliance with the standards in whose development they themselves were involved. PEFC's globally recognized Sustainability Benchmarks build and expand upon the most widely accepted principles, criteria and guidelines defining sustainable forest management, developed by international and intergovernmental bodies such as Forest Europe, the International Tropical Timber Organization (ITTO), the International Union for Conservation of Nature (IUCN), and the African Timber Organization (ATO). Forest

²²⁹ Id.; Naturland Standards on Production. 2014.

²³⁰ http://www.naturland.de/fileadmin/MDB/documents/Richtlinien_englisch/Naturland-Standards-on-Production.pdf

²³¹ http://www.naturland.de/fileadmin/MDB/documents/Richtlinien_englisch/Naturland-Processing-Standards.pdf

²³² Naturland Standards on Production. 2014.

²³³ PEFC Website. Accessed 3/2013: www.pefc.org

²³⁴ See <http://pefc.org/about-pefc/what-makes-pefc-unique>

certification is available to forest owners in countries with PEFC-endorsed national certification systems.²³⁵ For wood products, chain of custody certification is available to actors or businesses operating in these countries. Emphasis on small, family, and community owned and managed forestry.

Commodity: Forests, timber, and wood products

Registry: <http://pefc.org/find-certified/certified-certificates>

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity	Forest management units
Environmental Targets	<p>PEFC has a 7 criteria that regional, national, or sub-national forest management standards must meet in order to receive PEFC endorsement. Those directly relevant to REDD+ include:²³⁶</p> <ul style="list-style-type: none"> • Maintenance and enhancement of forest resources and their contribution to the global carbon cycle. • Maintenance of forest ecosystem health and vitality • Maintenance and encouragement of productive functions of forests (wood and non-wood) • Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems • Maintenance and appropriate enhancement of protective functions in forest management (notably soil and water) • Maintenance of other socio-economic functions and conditions • Compliance with legal requirements <p>Forest management planning shall aim to maintain or increase forests and other wooded areas and enhance the quality of the economic, ecological, cultural and social values of forest resources, including soil and water.</p> <p>Forest management practices shall safeguard the quantity and quality of the forest resources in the medium and long term by balancing harvesting and growth rates, and by preferring techniques that minimize direct or indirect damage to forest, soil or water resources.</p> <p>Conversion of forests to other types of land use, including conversion of primary forests to forest plantations, shall not occur unless in justified circumstances where the conversion:</p> <ul style="list-style-type: none"> • Is in compliance with national and regional policy and legislation relevant for land use and forest management and is a result of national or regional land-use planning governed by a governmental or other official authority including consultation with materially and directly interested persons and organizations; and • Entails a small proportion of forest type; and • Does not have negative impacts on threatened (including vulnerable, rare or endangered) forest ecosystems, culturally and socially significant areas, important habitats of threatened species or other protected areas; and • Makes a contribution to long-term conservation, economic and social benefits <p>Conversion of abandoned agriculture and treeless land into forest land shall be taken into consideration, whenever it can add economic, ecological, social and/or cultural value.</p> <p>Forest management planning shall aim to maintain and increase the health and vitality of forest ecosystems and to rehabilitate degraded forest ecosystems, whenever this is possible by silvicultural means.</p> <p>Forest management plans or their equivalents shall specify ways and means to minimize the risk of degradation of and damages to forest ecosystems. Forest management planning shall make use of those policy instrument set up to support these activities.</p> <p>Appropriate forest management practices such as reforestation and afforestation with tree species and provenances that are suited to the site and/or soil damages shall be applied.</p> <p>Forest management planning shall aim to maintain the capability of forests to produce a range of wood and non-wood forest products and services on a sustainable basis. Forest management practices shall maintain and improve the forest resources and encourage a diversified output of goods and services over the long term. Regeneration, tending and harvesting operations shall be carried out in time, and in a way that does not reduce the productive capacity of the site, for example by avoiding damage to retained stands and trees as well as to the forest soil, and by using appropriate systems.</p> <p>Forest management planning shall aim to maintain, conserve and enhance biodiversity on ecosystem, species and genetic levels and, where appropriate, diversity at landscape level. Forest management planning, inventory and mapping of forest resources shall identify, protect and/or conserve ecologically important forest areas containing significant concentrations of:</p> <ul style="list-style-type: none"> • Protected, rare, sensitive or representative forest ecosystems such as riparian areas and wetland biotopes • Areas containing endemic species and habitats of threatened species, as defined in recognized reference lists • Endangered or protected genetic in situ resources; and taking into account • Globally, regionally and nationally significant large landscape areas with natural distribution and abundance of naturally occurring species <p>Forest management shall ensure successful regeneration through natural regeneration, or, where not appropriate, planting that is adequate to ensure the quantity and quality of the forest resources.</p>

²³⁵ See <http://pefc.org/certification-services/forest/advantages>

²³⁶ PEFC 2010. PEFC ST 1003:2010 - Sustainable Forest Management – Requirements.

Guidance documents:

- The 2010 Sustainable Forest Management Requirements document provides guidance on what certification systems must meet and what activities must be carried out and evaluated in the certification scheme in order to be considered for PEFC endorsement.²³⁷

Level of ambition: All requirements must be complied with to obtain PEFC certification.

Definitions

Buffer Zones: areas dedicated to environmental, ecological, cultural, and social functions which form set-asides in the case of plantation forestry.²³⁸

Certified forest: forest area to which an independent certification body has granted certification.²³⁹

Forest plantation: Forest or other wooded land of introduced species, and in some cases native species, established through planting or seeding mainly for production of wood or non-wood goods.²⁴⁰

Forest: Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10 percent; or trees able to reach these thresholds *in situ*. Does not include land that is predominantly agricultural or under urban land use. Based on FAO definition from Forest Resources Assessment.

Forest conversion: The direct human-induced conversion of forests to other types of land use including conversion of primary forests to forest plantations.

Primary forest: Forest of native species where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed.

Sustainable Forest Management (SFM): The stewardship and use of forests and forest land in a way and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil now and in the future, relevant ecological, economic and social functions, at local, national and global levels and does not cause damage to other ecosystems.

Timelines

Cut-off dates: Forest plantations established by a forest conversion (from primary forest to secondary forests) after 31 December 2010 are not eligible for certification.²⁴¹

Implementation period: 3 to 5 years for certificates issued to operators by third-party certifiers.

Geographic Area

The requirements for sustainable forest management defined by regional, national or sub-national forest management standards shall apply to activities of all operators in the defined forest area who have a measurable impact on achieving compliance with the requirements²⁴². Forest management planning, inventory and mapping shall identify, protect and/or conserve ecologically important forest areas²⁴³.

Baselines

Inventory and mapping of forest resources shall be established and maintained, adequate to local and national conditions. Forest management planning, inventory and mapping shall identify, protect and/or conserve ecologically important forest areas.

Areas that fulfill specific and recognized protective functions for society shall be registered and mapped, and forest management plans or their equivalents shall take full account of these areas. Forest management plans or their equivalents shall take into account the different uses or functions of the managed forest area. Forest management planning shall make use of those policy instruments set up to support the production of commercial and non-commercial forest goods and services.

Baseline is defined as the measured conditions of the forest at the time that the management plan is designed: "Management plans or their equivalents shall include at least a description of the current condition of the forest management unit."²⁴⁴

MMRV

Monitoring

Forest management shall comprise the cycle of inventory and planning, implementation, monitoring and evaluation and shall include appropriate assessment of the social, environmental and economic impacts of forest management operations

- Inventory and mapping of forest resources shall be established and maintained, adequate to local and national conditions and in correspondence with the topics described in this document
- Management plans, appropriate to the size and use of the forest area, shall be elaborated and periodically updated and based on legislation, existing land use plans, and should cover the forest resources
- Management plans must include at least: description of current condition of the forest unit, long-term objectives, average annual allowable cut, justification for the cut, and annual allowable exploitation of non-timber forest products
- Monitoring of forest resources and evaluation of their management shall be periodically performed, and results fed back into the planning process
- Exploitation of non-timber forest products, including hunting and fishing, shall be regulated, monitored and controlled
- Forest management planning, inventory and mapping shall identify, protect and/or conserve ecologically important forest areas

²³⁷ Id.

²³⁸ Id. pp. 15.

²³⁹ PEFC 2006. PEFC Terms and Definitions. 27 October 2006.

²⁴⁰ PEFC ST 1003:2010. Sustainable Forest Management – Requirements. Sec. 3.1.

²⁴¹ Id. pp. 15.

²⁴² PEFC ST 1003:2010. Sustainable Forest Management – Requirements. 4.1.c

²⁴³ PEFC ST 1003:2010. Sustainable Forest Management – Requirements. 5.4.2

²⁴⁴ *ibid.* para 5.1.5.

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- Forest management shall comprise the cycle of inventory and planning, implementation, monitoring and evaluation, and shall include an appropriate assessment of the social, environmental and economic impacts of forest management operations.
- Health and vitality of forests shall be periodically monitored, especially key biotic and abiotic factors that potentially affect health and vitality of forest ecosystems, such as pests, diseases, overgrazing and overstocking, fire, and damage caused by climatic factors, air pollutants or by forest management operations.

Measurement

Forest management shall comprise the cycle of inventory and planning, implementation, monitoring and evaluation, and shall include an appropriate assessment of the social, environmental and economic impacts of forest management operations. This shall form a basis for a cycle of continuous improvement to minimize or avoid negative impacts.²⁴⁵

Management plans or their equivalents shall include at least a description of the current condition of the forest management unit, long-term objectives; and the average annual allowable cut, including its justification and, where relevant, the annually allowable exploitation of non-timber forest products.²⁴⁶

Reporting

A summary of the forest management plan or its equivalent appropriate to the scope and scale of forest management, which contains information about the forest management measures to be applied, is publicly available.²⁴⁷

A summary of the certification report, including a summary of findings on the auditees conformity with the forest management standard, written by the certification body, shall be made available to the public by the auditee or in accordance with any applicable requirements defined by the respective forest certification scheme²⁴⁸

Verification

While PEFC and its endorsed national forest certification systems develop standards, verification of compliance is not carried out by PEFC itself, but by independent, accredited certification bodies. Certificates issued by certification bodies are valid for three to five years, after which operators must become re-certified. Additional checks are done through annual surveillance audits to proactively verify on-going compliance with PEFC requirements.

PEFC also requires certification bodies to be accredited by national accreditation bodies. Accreditation serves as a quality-control mechanism to ensure the credibility of the work of certification bodies. Accreditation bodies independently evaluate the work of certification bodies and assess their competence, impartiality and performance capability. Accreditation bodies need to be members of the International Accreditation Forum (IAF), the world association of Conformity Assessment Accreditation Bodies.²⁴⁹ The use of national accreditation bodies ensures full ownership of the sovereign country and the ability to add additional, complementary standards for verification.

Chain of Custody

Chain of Custody certification is required for organizations wishing to apply on- or off-product labelling.²⁵⁰ Organizations must identify the material category of incoming materials at delivery and at the supplier level. There are specific requirements for organizations due diligence systems regarding 1. Gathering information, 2. Risk assessments, and 3. Management of significant risk supplies.

PEFC Chain of Custody certification provides independently verified assurance that the certified wood contained in a product originates from well-managed forests. In addition, the PEFC Due Diligence System (DDS) minimizes the risk that timber comes from illegal harvesting and enables companies to demonstrate alignment with regulatory requirements (e.g. EUTR). The PEFC DDS is an integral part of PEFC Chain of Custody certification. To earn PEFC Chain of Custody certification, companies must develop and implement procedures to account for the purchasing, tracking, manufacturing, sale and recordkeeping of certified materials.

PEFC Chain of Custody certification is available to all companies that manufacture, process, trade or sell timber or timber-based products.

- Single-site Certification: For companies that operate one facility
- Multi-site Certification: For companies that operate several facilities
- Group Certification: For small, independent businesses forming a "group" for the purpose of certification to reduce costs.
- Project Certification: For short-term projects involving different, uncertified contractors, such as in construction and building projects, or the one-off production of a specific product.²⁵¹
- For a product to qualify for certification, all entities along the supply chain must be PEFC Chain of Custody certified.

There are two methods to implement CoC – physical separation and percentage based – with specific requirements. There are also requirements for documenting sold and transferred products, use of logos and labels, record-keeping procedures, inspection and control, among others.

Subsidiary relationships

In case of Chain of Custody certification, all members of the certified operation must be audited annually regularly to avoid noncompliance and loss of certification.²⁵²

Group Forest Management certification allows multiple forest owners or a community to work under a single certificate, leading to group accountability among the members of the group.²⁵³

²⁴⁵ PEFC ST 1003:2010. Sustainable Forest Management – Requirements. 5.1.2

²⁴⁶ PEFC ST 1003:2010. Sustainable Forest Management – Requirements. 5.1.5

²⁴⁷ PEFC ST 1003:2010. Sustainable Forest Management – Requirements. 5.1.6

²⁴⁸ PEFC TD Annex 6, section 4

²⁴⁹ http://pefc.org/images/documents/brochures/Promoting_Sustainable_Forest_Management.pdf page 13

²⁵⁰ <http://www.pefc.org/standards/chain-of-custody>

²⁵¹ http://pefc.org/images/documents/brochures/The_Business_Benefits_of_PEFC_Certification.pdf page 4

²⁵² PEFC. PEFC ST 2003:2012. Requirements for Certification Bodies operating Certification against the PEFC International Chain of Custody Standard.

²⁵³ PEFC. 2010. PEFC ST 1002:2010. Group Forest Management Certification – Requirements.

Multi-site forest certification exists through the growing Group Forest Management scheme.

Noncompliance

PEFC is aware that, as with any programme or activity, there may be issues of non-conformity or noncompliance from time to time. PEFC has put in place a series of complaints and appeals mechanisms to respond to such situations. PEFC encourages stakeholders to forward information on any suspected activities to the respective complaints and appeals mechanism. In addition to correcting any such issues, complaints and appeals also provide an opportunity to implement corrective and preventive measures and to improve PEFC services.

- Complaints against **certified entities** are dealt by the respective complaints and appeals procedures put in place by certification bodies. Issues that remain unresolved at this level should be raised with the respective complaints and appeals mechanisms of accreditation bodies and thereafter with the IAF. If the certification body is judged to not deal with the complaint appropriately, it risks losing its licence to operate.
- **National forest certification systems** must have in place complaints and appeals procedures to deal with issues related to their performance and compliance with PEFC's Sustainability Benchmarks. If issues cannot be solved at national level, stakeholders can call upon PEFC International's complaints and appeals mechanism. Complaints against national PEFC members, if upheld, can have serious consequences, including the suspension or termination of PEFC endorsement.
- **Standards development** working groups must have mechanisms in place to deal with complaints and appeals concerning the standards development process.²⁵⁴

Certified entities must provide evidence of compliance with the requirements of the forest management standards.²⁵⁵

Complaint and appeals to address noncompliance with standards can be initiated by an outside party directly to PEFC. Noncompliance by PEFC members can be sanctioned through suspension or termination of PEFC endorsement.²⁵⁶

1.11 Roundtable on Sustainable Biomaterials (RSB)

Overview: The Roundtable on Sustainable Biomaterials (RSB) was established in 2007 to ensure the sustainability of liquid biofuels for transport.²⁵⁷ In 2013, RSB expanded its scope to cover biomaterials. RSB offers a set of global RSB standards as well as an adapted set of RSB EU RED consolidated standards for compliance with the EU Renewable Energy Directive (EU RED).

Objective: RSB is an international multi-stakeholder initiative that brings together farmers, companies, non-governmental organizations, experts, governments, and inter-governmental agencies concerned with ensuring the sustainability of biomass and biomaterial production and processing.²⁵⁸ RSB grants certification for a range of bioenergy and bio-based products using a risk management approach, which ensures security and robustness while remaining flexible for operators.²⁵⁹ There are several "chain of custody" options, such as 100% segregation and mass balance. It is also possible to certify groups of producers.

Commodity: Biomaterials

Registry: <http://rsb.org/certification/participating-operators/>

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity	Feedstock producers, feedstock processors, biofuel producers, biofuel blenders
Environmental Targets	<p>For feedstock producers, feedstock processors, biofuel producers and biofuel blenders, biofuels shall contribute to climate change mitigation by significantly reducing lifecycle GHG emissions as compared to fossil fuels.²⁶⁰</p> <p>Biofuel blends are to have on average 50% lower lifecycle GHG emissions relative to the fossil fuel baseline.²⁶¹ Each biofuel in the blend must have lower lifecycle GHG emissions than the fossil fuel baseline.</p> <p>Conservation values of local, regional or global importance within the potential or existing area of operation shall be maintained or enhanced.²⁶² Conservation values must be identified within the area of operation during the screening stage of the impact assessment.</p>

²⁵⁴ http://pefc.org/images/documents/brochures/Promoting_Sustainable_Forest_Management.pdf page 13

²⁵⁵ *ibid.* para 4.1 c.

²⁵⁶ <http://pefc.org/standards/national-standards/complaints-appeals>

²⁵⁷ RSB Website: What is RSB? Available at <http://rsb.org/about/what-is-rsb/>.

²⁵⁸ RSB Website. Available at <http://rsb.org/>.

²⁵⁹ RSB Website: Certification. Available at <http://rsb.org/certification/>.

²⁶⁰ RSB Principles and Criteria, Principle 3, 2010.

²⁶¹ RSB Principles and criteria, Criterion 3C, 2010.

²⁶² *Id.*, Principle 7.

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Conversion or use of new areas for biofuel operations cannot occur prior to the screening exercise.

Ecological corridors should also be protected, restored or created along with appropriate surrounding buffer zones to minimize fragmentation of habitats.

The RSB EU RED Principles and Criteria specifically define primary forest and other wooded land, namely forest and other wooded land of native species, where there is clearly no visible indication of human activity and the ecological processes are not significantly disturbed as "no go areas."²⁶³

Guidance documents:

- RSB Guidance on Principles and Criteria for Sustainable Biofuel Production offer participating operators with directions on where to access the guidelines for each principle and criterion, as well as general information on implementing the Principles and Criteria.²⁶⁴
- RSB Standards for Participating Operators.
- The RSB Screening Tool is so that operators can assess their operations before applying for certification and going through a full audit, so that they can improve the areas that might otherwise prevent them from being certified.²⁶⁵

Level of ambition: All requirements must be complied with to obtain RSB certification.

Definitions

Native Forest (non-degraded): represents native or long-term, non-degraded and sustainably managed forest.²⁶⁶

Shifting Cultivation: permanent shifting of cultivation, where tropical forest or woodland is cleared for planting of annual crops for a short time (e.g. 3-5 years) period and then abandoned to regrowth.

Mature fallow: situations where the forest vegetation recovers to a mature or near mature state prior to being cleared again for cropland use.

Shortened fallow: situations where the forest vegetation recovery is not attained prior to re-clearing.

Buffer zones: small areas of strips of land in permanent vegetation, designed to intercept pollutants and manage other environmental concerns. Buffer Zones include the regions near the border of an area which is protected or managed for conservation, transition zones between areas managed for different objectives (riparian buffer zones between rivers and production areas) or areas on the edge of protection areas that have land use controls and allow only activities compatible with protection of the core area, such as research, environmental education, recreation, and tourism. Buffers include: riparian buffers, filter strips, grassed waterways, shelterbelts, windbreaks, living snow fences, contour grass strips, cross-wind trap strips, shallow water areas for wildlife, field borders, alley cropping, herbaceous wind barriers and vegetative barriers.²⁶⁷

Conservation values: biological, ecological, social or cultural features of a delineated area which justify the implementation of conservation measures, e.g., biodiversity, including wetlands, natural and semi-natural ecosystems such as forests or woodlands, lands with an important stock of carbon such as peatlands and primary forests, and landscape-scale forests or ecosystems).²⁶⁸

Peatland: peat is a heterogeneous mixture of more or less decomposed plant (humus) material that has accumulated in a water-saturated environment and in the absence of oxygen. Its structure ranges from more or less decomposed plant remains to a fine amorphous, colloidal mass. A peatland is an area with or without vegetation with a naturally accumulated peat layer at the surface.

Semi-natural: typically encompasses vegetation types where the species composition and/or vegetation growth forms have been altered through anthropogenic disturbances such that no clear natural analogue is known, but they are a largely spontaneous set of plants shaped by ecological processes.

Sensitive sites: include protected areas, wetlands, mangroves, buffer zone of protected area, special areas for protecting biodiversity and high conservation value forested areas.

Wetland: areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing.

Forest Land: all land with woody vegetation consistent with thresholds used to define Forest Land in the national greenhouse gas inventory, as well as systems with a vegetation structure that currently fall below but could potentially reach the threshold values to define Forest Land.²⁶⁹

Timelines

Cut-off date: 1 January 2009, or earlier if prescribed by other relevant international standards.²⁷⁰ 1 January 2008 for RSB EU RED

²⁶³ Consolidated RSB EU RED Principles and Criteria for Sustainable Biofuel Production, 2011.

²⁶⁴ RSB Guidance on Principles and Criteria for Sustainable Biofuel Production, 2010.

²⁶⁵ RSB Screening Tool, 2012.

²⁶⁶ RSB GHG Tool Manual, 2013.

²⁶⁷ Use of Terms for the RSB Principles and Criteria (Glossary) 2010.

²⁶⁸ Id.; RSB Conservation Impact Assessment Guidelines, 2011.

²⁶⁹ RSB GHG Calculation Methodology, 2012; GHG Tool Manual, 2013.

²⁷⁰ RSB Principles and Criteria, Criterion 7a, 2010.

Standard, or earlier if prescribed by other relevant international standards.²⁷¹

Certification period: ranges from 3 months (class 6 risk) to 2 years (class 1 risk operator).²⁷² Risk assessments are done to each participating operator to determine the length of the certification validity period.²⁷³

Geographic Area	When applying for certification, operators are required to define the scope of certification, including name, location, geographic coordinates, position in the supply chain, responsible representative, and total surface (ha) or production volumes (metric tons), and proof of legal title or land ownership/use rights. ²⁷⁴
Baselines	<p>Feedstock producers, feedstock processors and biofuel producers are required to carry out either an Environmental and Social Impact Assessment (ESIA) or a Rapid Environmental and Social Assessment (RESA). An Environmental and Social Management Plan (ESMP) is also required for all operations. In some criteria, the impact assessment must exceed the scope of the immediate operational area (e.g., water management and use, ecosystem impacts, biodiversity and conservation).</p> <p>Specialized assessments according to the Conservation Impact Assessment Guidelines are required for all areas identified as conservation values.²⁷⁵ Areas identified as having conservation values are deemed “no-go areas,” but may be used if adequate management practices maintain or enhance the identified conservation values (e.g., sustainable biomass harvesting). In accordance with the impact assessment, operators must implement practices through the ESMP that maintain ecosystem functions and services both inside and outside the operational site, which are directly affected by biofuel operations.²⁷⁶</p> <p>Each operator must define the boundary for their calculations when using the GHG methodology, including all operations involved in or necessary to the production, storage and transport of biofuel or feedstock falling within the scope of certification.²⁷⁷ Carbon emissions due to direct land use change are annualized over a 20-year period.</p> <p>Land use impact assessments are also used to provide a more thorough identification of conservation values (includes wetlands, natural and semi-natural ecosystems such as forests or woodlands, lands with an important stock of carbon such as peatlands and primary forests, and landscape-scale forests or ecosystems).²⁷⁸ Areas with such conservation values are identified as “no-conversion areas,” meaning no conversion can take place for any biofuel operation after the cut-off date unless it is used as is (sustainable harvesting) if conservation values are maintained or enhanced.</p> <p>The “Baseline land use type” is the land use type at the time of the baseline date (1 January 2009 or earlier if another sustainability standard with an earlier cutoff date applies to the project).²⁷⁹ The baseline for fossil fuel emissions was estimated based on assumptions of emissions regarding crude oil production, crude oil transport, fuel production, finished fuel transport and use, and separated by fuel type (gasoline, diesel, and kerosene/jet).²⁸⁰</p> <p>Guidance documents:</p> <ul style="list-style-type: none">• RSB Impact Assessment Guidelines.• The RSB Conservation impact Assessment Guidelines provide detailed guidance on the potential issues and impacts of project activities and steps that participating operators can take to avoid negative impacts or enhance positive impacts.²⁸¹• RSB provides operators with detailed guidelines for using the lifecycle GHG emission calculation methodology along with a GHG Tool Manual.²⁸²• The HCV Toolkit explains how to identify, manage and monitoring HCVs.²⁸³
MMRV	<p>Monitoring</p> <p>Monitoring Plans are developed with the ESMP, for which monitoring programs are to be initiated as soon as a project is initiated to detect the following changes in natural ecosystems and conservation values: alien invasive plants, overall vegetation changes, and vegetation change and natural succession (change to vegetation noted on an annual basis).²⁸⁴ Monitoring should be ongoing for the life of the project.</p> <p>Environmental and Social Management Plan:</p> <ul style="list-style-type: none">• Environmental and social management plan pulls together all baselines studies, reports, impact assessments, mitigation, management, monitoring and evaluation plans into a comprehensive summary document that will act as an overall plan for operations• Monitoring is a key component of the ESMP, and data must be collected at agreed intervals which depend on the nature of the activity and the threshold being monitored and what is prescribed in the principles and criteria and minimum requirements<ul style="list-style-type: none">○ Requires the development of an Environmental and Social Monitoring System (ESMS)○ A monitoring plan is developed which consists of:<ul style="list-style-type: none">▪ What, where and when to measure▪ How to measure▪ How often to measure▪ Methods to be used▪ Additional information required

²⁷¹ RSB GHG Tool Manual, 2013.

²⁷² RSB General Requirements for Certification Bodies, 2011.

²⁷³ RSB Requirements for Evaluation of and Reporting on Participating Operators, 2011.

²⁷⁴ RSB Standards for Participating Operators, 2014.

²⁷⁵ RSB Principles and Criteria, Criterion 7a, 2010.

²⁷⁶ RSB Principles and Criteria, Criterion 7b, 2010.

²⁷⁷ RSB GHG Calculation Methodology, 2012.

²⁷⁸ RSB Conservation Impact Assessment Guidelines, 2011.

²⁷⁹ RSB GHG Calculation Methodology, 2012.

²⁸⁰ RSB Fossil Fuel Baseline Calculation Methodology, 2011.

²⁸¹ RSB Conservation Impact Assessment Guidelines

²⁸² RSB GHG Calculation Methodology, 2012; RSB GHG Tool Manual, 2013.

²⁸³ Use of Terms for the RSB Principles and Criteria (Glossary) 2010.

²⁸⁴ RSB Conservation Impact Assessment Guidelines, 2011.

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- Criteria for effective data collection, management and reporting include:
 - Realistic sampling program (temporal, spatial and point data)
 - Collection of quality data
 - Compatibility of new data with historical data
 - Cost effective data collection
 - Quality control in measurement and analysis
 - Appropriate databases to capture, store, retrieve and display the data
 - Reporting for internal management and external auditing

Conservation Impact Assessment:

- It is important that as soon as the project is initiated a monitoring program is initiated to detect the following changes in natural ecosystems and conservation values:
 - Alien invasive plants
 - Overall vegetation changes: general changes to the vegetation and habitats should be monitored
 - Vegetation change and natural succession: any changes to the vegetation should be noted on an annual basis

RSB Screening Tool:

- Identify whether conservation values exist on the area of operations

Land Use Impact Assessment:

- Top-down combination of desk and field work, in consultation with local experts and communities, and includes at least: 1) screening (review of publicly available data and maps); 2) landscape-level assessment (consultation of national/regional experts and institutions); 3) site-level mapping (detailed site-level assessment and planning through consultation of local communities); and 4) responsible management (the implementation of responsible land management practices)
- Determines "no go" areas that cannot be used for biofuel production
- Important ecosystem functions are identified

Measurement

Lifecycle GHG emissions of biofuel are calculated using the RSB lifecycle GHG emission calculation methodology. This methodology includes GHG emission from land use change (including but not limited to above- and below-ground carbon stock changes),²⁸⁵ RSB also allows calculation of lifecycle GHG emissions using the UK Biomass and Biogas Calculator which follows the EU methodology.²⁸⁶

The calculations of background data (*i.e.*, emission factors) rely on data from the ecoinvent database. The GHG calculation methodology provides instructions on calculating CO₂ emissions from land use change, which includes: forest land, cropland, grassland, wetlands, settlements, and other land. These broad land-use categories can be further stratified, for which RSB provides examples: climate (boreal, cold temperate dry, tropical dry, etc.); soil (high activity clay, wetland, organic, etc.); biomass (tropical rainforest, temperate continental forest, boreal coniferous forest, etc.); and management practice (perennial tree crop, intensive tillage/reduced till/no-till, etc.).

The GHG calculation methodology refers to IPCC 2006 Guidelines for land use categories, and only calculates emissions from direct land use change. It takes into account three carbon pools and three carbon stock values of the IPCC 2006 guidelines. Carbon sequestration from biomass is not taken into consideration in the calculation.

Reporting

Summaries of certification reports are made public on the RSB website, and include information such as: profile, certification scope, risk assessment, certification evaluation process, certification decision, certificate, details of information collected during evaluation, details on noncompliance, extent of equivalence between self-evaluation and independent evaluation, actions taken to address noncompliance, suspensions and withdrawals, and the start and end date of the certification.²⁸⁷

Verification

Certification Bodies assess Participating Operators against the Standards for Participating Operators.²⁸⁸

Guidance documents:

- RSB ESMP Guidelines inform Participating Operators on creating a ESMP, monitoring plan and monitoring program.²⁸⁹

Chain of Custody

RSB offers a number of different CoC standards, including Generic CoC, Identity Preserved CoC, Product Segregation CoC, and Mass Balance CoC.²⁹⁰ The RSB standard requires that any organizations gaining physical or legal ownership of the product must establish effective CoC tracking systems. In compliance with EU RED, RSB has a mass balance standard, but also provides two options that go beyond mass balance:

Product Segregation CoC ensures that RSB-compliant biofuel is not mixed with other types of compliant biofuel (can only contain a mixture of RSB-compliant biofuel).

Identity Preserved CoC ensures that there is no mixing of RSB-compliant biofuel matches whatsoever. Biofuel tracked under this model can be traced back to its origin.

Critical Control Points:

1. After non-compliant fuel passes through system, first batch of compliant fuel should be labelled as non-compliant.

²⁸⁵ RSB Principles and Criteria, Principle 3, 2010.

²⁸⁶ RSB GHG Calculation Methodology, 2012.

²⁸⁷ RSB Requirements for Evaluation of and Reporting on Participating Operators, 2011.

²⁸⁸ RSB General Requirements for Certification Bodies, 2011.

²⁸⁹ RSB ESMP (environmental and social management plan) Guidelines, 2011.

²⁹⁰ <http://rsb.org/certification/chain-of-custody-implementation/>

2. Staff should be trained to pay special attention to critical control points, as they may be asked to demonstrate their knowledge pertaining to critical control points during an audit.
3. Chain of Custody systems should include clear management procedures and controls for detecting non-compliance, and implementing corrective actions

Within the three-month accounting period, an operator may sell more compliant product than he has in stock, as long as he is able to provide the evidence (contract) that he is due to receive the replacement compliant biofuel within the three-month period. This is called "operating in deficit." Upon receipt of product, all documentation shall be identified and documented according to input, handling and output. There are specific requirements for each.

Subsidiary relationships	RSB requires participating operators to disclose all related companies when applying for certification. ²⁹¹ Certification bodies must also issue "sub-certificates" for each legal entity and operational site included in the certification scope of the participating operator. ²⁹²
Noncompliance	<p>The agreement between the participating operator and the certification body must include a provision allowing the certification body to suspend and/or withdraw the RSB certificate if the certification body believes the operator is not complying with RSB standards.²⁹³</p> <p>The participating operator must identify and notify all customers and suppliers affected of the suspension or withdrawal in writing within 3 days of suspension or withdrawal. The certification body must update the relevant data in RSB databases of the suspension or withdrawal within 5 days.</p> <p>Auditors are responsible for identifying various activities of noncompliance by participating operators, and then evaluating whether the noncompliance could result in compromising the RSB certification systems and/or trademarks.²⁹⁴ If it will compromise RSB certification, the auditor can inform the certification body who will then decide if it will suspend or revoke the certification (if major noncompliance is not corrected in 90 days).</p>

1.12 Roundtable on Sustainable Palm Oil (RSPO)

Overview: Formed in 2004 and providing certification since 2008, RSPO membership now exceeds 1000 companies from over 50 countries. In 2012, RSPO annual production reached 14% of global crude palm oil, covering an area of 1,607,307 hectares.²⁹⁵ There are different types of membership with different membership fees: Ordinary Member, Ordinary Member (small grower), Affiliate Member, and Supply Chain Associate. Affiliate Members and Supply Chain Associates do not have voting rights in the General Assembly but Ordinary Members, and Ordinary Members who qualify as small growers do. Affiliate Members include groups such as academic organizations or individual supporters while Supply Chain Associates are organizations dealing with less than a total of 500 metric tons of palm oil or palm oil derivatives per year.

Objective: Promoting the growth and use of sustainable oil palm products through credible global standards and engagement of stakeholders. RSPO provides a voluntary certification framework which applies to palm oil producers, as well as retailers to signal sustainability in production practices and the palm oil value chain. Non-conformance of certification principles and criteria can result in the suspension or withdrawal of the certificate. RSPO also has a separate set of requirements for growers and millers that comply with the EU Renewable Energy Directive (EU RED).

Commodity: Oil palm

Registry: http://www.rspo.org/en/current_list_of_supply_chain_certification

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity	Growers
Environmental Targets	<p>The RSPO Principles and Criteria require growers and millers to make documents such as plans and impact assessments relating to environmental and social impacts, HCV documentation, pollution prevention and reduction plans and a public summary of the certification report available to the public.²⁹⁶</p> <p>Growers and millers are also required to develop management and monitoring plans, which identify aspects of plantation and mill</p>

²⁹¹ RSB Standards for Participating Operators, 2014.

²⁹² RSB General Requirements for Certification Bodies, 2011.

²⁹³ RSB General Requirement for Certification Bodies, 2011.

²⁹⁴ RSB Requirements for Evaluation of and Reporting on Participating Operators, 2011.

²⁹⁵ IISD. The State of Sustainability Initiatives Review 2014.

²⁹⁶ RSPO Principles and Criteria for the Production of Sustainable Palm Oil, Indicator 1.2.1. 2013.

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management that have environmental impacts and plans to mitigate negative impacts and promote positive ones.²⁹⁷ A timetable for implementing changes must be included with these plans.

Management and monitoring plans should also include information on any identified High Conservation Values (HCVs), rare, threatened or endangered (RTE) species, and appropriate measures to maintain or enhance them.

Mandatory HCV assessments collect information on the planted area itself as well as relevant wider landscape-level information (e.g., wildlife corridors) to identify these HCVs and RTE species. Growers and millers must avoid damage to and deterioration of HCV habitats by ensuring HCV areas are connected, corridors are conserved and buffer zones around HCV areas are created.

Replacement of primary forest or any area required to maintain or enhance HCV areas is prohibited for plantings after November 2005.²⁹⁸ Comprehensive HCV assessments are required before any conversion or new planting, along with a land use change analysis to determine changes to vegetation since November 2005.²⁹⁹

Assessments of all polluting activities are also required for all growers and millers, which include gaseous emissions, particulate/soot emissions and effluent.³⁰⁰ Significant pollutants and GHG emissions must be identified and plans must be implemented to reduce or minimize them.³⁰¹

Plantation development should not put indirect pressure on forests through the use of all available agricultural land in an area.³⁰² HCV maps should be taken into consideration in project planning.

New plantation developments must be designed to minimize net GHG emissions, with identification and estimation of the carbon stock of the proposed area and major potential sources of emissions from development.³⁰³

Growers are strongly encouraged to establish new plantations on mineral soils, in low carbon stock areas, and cultivated areas.³⁰⁴ Millers are encouraged to develop low-emission management practices in new developments.

New oil palm plantings after 1 January 2010 must also follow the RSPO Procedures for new plantings (NPP).³⁰⁵ These procedures elaborate on the requirements for criterion 7.3 and include mandatory HCV assessments, preparation of implementation plans, certification body verification, public notification and grievance and dispute resolution.³⁰⁶

Countries can develop their own National Standards interpretations of the RSPO Principles and Criteria which may contain varied or more in-depth principles, criteria and indicators.³⁰⁷ There are also local indicators in several countries.³⁰⁸

Guidance documents:

- The Revised RSPO Principles and Criteria provide "Specific Guidance" and "Guidance" for compliance with each principle and criterion.³⁰⁹

Level of ambition: All requirements must be complied with to obtain RSPO certification.

Definitions

HCV Areas: The areas necessary to maintain or enhance one or more HCVs (HCV Network).³¹⁰

HCV 1 – species diversity: concentrations of biological diversity including endemic species, and rare, threatened or endangered species, that are significant at global, regional or national levels

HCV 2 – landscape-level ecosystems and mosaics: large landscape-level ecosystems and ecosystem mosaics that are significant at global, regional or national levels, and that contain viable populations of the great majority of the naturally occurring species in natural patterns of distribution and abundance

HCV 3 – ecosystems and habitat: rare, threatened, or endangered ecosystems, habitats or refugia

HCV 4 – critical ecosystem services: basic ecosystem services in critical situations, including protection of water catchments and control of erosion of vulnerable soils and slopes

HCV 5 – community needs: sites and resources fundamental for satisfying the basic necessities of local communities or indigenous peoples (for livelihoods, health, nutrition, water, etc.), identified through engagement with these communities or

²⁹⁷ Id., Principle 5.1.

²⁹⁸ Id., Indicator 7.3.1.

²⁹⁹ Id., Indicator 7.3.2.

³⁰⁰ Id., Indicator 5.6.1.

³⁰¹ Id., Indicator 5.6.2.

³⁰² Id., Guidance for 7.3.

³⁰³ Id., Principle 7.8, Indicator 7.8.1.

³⁰⁴ Id., Specific Guidance for 7.8.2.

³⁰⁵ RSPO Website: New Planting Procedure. Available at http://www.rspo.org/en/new_planting_procedure.

³⁰⁶ RSPO Detailed Process and Action Steps for RSPO New Plantings Procedure, 2012.

³⁰⁷ RSPO Website: National Interpretations. Available at http://www.rspo.org/en/document_national_interpretations.

³⁰⁸ RSPO Website: Local Indicators. Available at http://www.rspo.org/en/document_local_indicators.

³⁰⁹ RSPO Principles and Criteria for the Production of Sustainable Palm Oil, 2013.

³¹⁰ RSPO Principles and Criteria for the Production of Sustainable Palm Oil, Definitions. 2013.

indigenous peoples

HCV 6 – cultural values : sites, resources, habitats and landscapes of global or national cultural, archaeological or historical significance, and/or of critical cultural, ecological, economic or religious/sacred importance for the traditional cultures of local communities

Natural vegetation: areas where many of the principle characteristics and key elements of native ecosystems such as complexity, structure and diversity are present.

Primary forest: a primary forest is a forest that has never been logged and has developed following natural disturbances and under natural processes, regardless of its age. Also included as primary are forests that are used inconsequently by indigenous and local communities living traditional lifestyles relevant for the conservation and sustainable use of biological diversity. The present cover is normally relatively close to the natural composition and has arisen (predominantly) through natural regeneration. (FAO)³¹¹

Carbon stock areas: those with (above and below ground) carbon stores, where the losses as a result of conversion are equal or smaller to the gains in carbon stock within the new development area including set aside areas (non-planted areas) over the period of one rotation.

Timelines

Cut-off date: November 2005³¹²

Implementation period: 5 years³¹³

Geographic Area

Growers and millers are required to provide detailed information on the scope of certification, including general location maps and HCV area maps with GPS coordinates.³¹⁴ Maps should be of an appropriate scale and show the extent of recognized legal, customary or user rights.³¹⁵

Baselines

Environmental Impact Assessments (EIAs) and Independent social and environmental impact assessments (SEIA) are required for all certifications, along with management and monitoring plans addressing any sensitive areas identified in those assessments.

The assessments should address: whether HCVs could be negatively affected; potential effects on adjacent natural ecosystems including whether development or expansion will increase pressure on nearby natural ecosystems; baseline soil surveys and topographic information, including the identification of steep slopes, marginal and fragile soils, areas prone to erosion, degradation, subsidence and flooding; analysis of the type of land to be used (forest, degraded forest, cleared land); analysis of current land use patterns; and identification of activities which may generate significant GHG emissions.³¹⁶

Unless a national interpretation of the RSPO Principles and Criteria state otherwise, a full independent assessment is required for land areas greater than 500ha and an internal assessment using selected components of SEIA and HCV assessment is required for areas less than 500a. RSPO also requires growers and millers to develop a business or management plan for a minimum of three years to illustrate economic and financial viability with the new sustainable procedures.³¹⁷ Action plans for continual improvement must include information on the anticipated environmental impacts, pollution and GHG emissions, and measures for optimizing the yield of the supply base in light of those factors.

Changes in carbon stocks are measured against the baseline of land use in the area in November 2005.³¹⁸ Carbon stock values of previous land uses for logged forest, secondary regrowth forest, shrub, grassland, food crops, coconut, rubber, and cocoa under shade are available in PalmGHG.³¹⁹ They were defined by the scientific panel of RSPO GHG working group through review of literature data and satellite images to identify land use changes associated with oil palm plantations in Indonesia and Malaysia. Carbon stocks include above- and below-ground biomass.

Guidance documents

- The Global HCV Toolkit provides guidance on HCV assessments if there is no National Interpretation of the HCV criteria available.³²⁰
- The RSPO Carbon Assessment Tool for New Plantings is available to identify and estimate carbon stocks.³²¹
- The HCV Assessments for RSPO Certification: Reporting Requirements document provides detailed information annex templates for what should be included in the HCV Summary Reports.³²²
- The RSPO PalmGHG: A Greenhouse Gas Accounting Tool for Palm Products Accompanying Documentation gives detailed instructions for growers and millers on how to use PalmGHG.³²³

MMRV

Monitoring

Environmental Management Plan:

- The management plan shall include a monitoring protocol, adaptive to operational changes, which shall be implemented to monitor the effectiveness of the mitigation measures. The plan shall be reviewed at a minimum every two years to reflect the results of monitoring and where there are operational changes that may have positive and negative environmental impacts
- The monitoring protocol should cover the following activities, where they are undertaken:
 - Building new roads, processing mills or other infrastructure

³¹¹ Id., Annex 2.

³¹² RSPO Principles and Criteria for the Production of Sustainable Palm Oil, Indicator 7.3.1. 2013

³¹³ RSPO Certification Systems, 2007.

³¹⁴ RSPO Certification Systems, Annex 4. 2007; HCV Assessments for RSPO Certification: Reporting Requirements, 2012.

³¹⁵ RSPO Principles and Criteria for the Production of Sustainable Palm Oil, Indicator 2.3.1. 2013.

³¹⁶ Id., Guidance for Principle 7.1.

³¹⁷ RSPO Principles and Criteria for the Production of Sustainable Palm Oil, Principle 3.1. 2013.

³¹⁸ RSPO Principles and Criteria for the Production of Sustainable Palm Oil, Specific Guidance for Indicator 5.6.3. 2013.

³¹⁹ RSPO PalmGHG A Greenhouse Gas Accounting Tool for Palm Products Accompanying Documentation, 2012.

³²⁰ Id., Guidance for 7.3.

³²¹ Id., Specific Guidance for 7.8.1.

³²² HCV Assessments for RSPO Certification: Reporting Requirements, 2012.

³²³ PalmGHG A Greenhouse Gas Accounting Tool for Palm Products Accompany documentation, 2012.

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- Putting in drainage or irrigation systems
- Replanting and/or expansion of planting areas
- Management of mill effluents
- Clearing of remaining natural vegetation
- Management of pests and diseased palms by controlled burning
- Monitoring must also be done to:
 - Ensure that any legal requirements relating to protection of species or habitat are met
 - Avoid damage to and deterioration of HCV habitats by ensuring that HCV areas are connected, corridors are conserved, and buffer zones around HCV areas are created
 - Controlling any illegal or inappropriate hunting, fishing or collecting activities
- Information gathering should include checking available biological records and consultation with relevant government departments, research institutes and interested NGOs if appropriate
- Depending on the biodiversity elements that are present, and the level of available information, some additional field survey work may be required
- Significant GHG shall be identified, and a monitoring system put in place with regular reporting on progress for these GHG from estate and mill operations using appropriate tools (PalmGHG)
- Evidence of no new planting on primary forest or HCV area includes historical remote sensing imagery which demonstrates that there has been no conversion of primary forest or any area required to maintain or enhance HCVs. Satellite or aerial photographs, land use maps and vegetation maps should be used to inform the HCV assessment

HCV Assessment:

- Where HCVs are present or affected by plantation or mill operations, appropriate measures to maintain or enhance them must be implemented through a management plan
- There shall be ongoing monitoring of the status of HCV and RTE species that are affected by plantation or mill operations which must be documented and reported
- Outcomes of monitoring should be fed back into the management plan

Measurement

Calculation of GHG emissions is required, and during the RSPO implementation period (until 1 January 2017) growers and millers commit to reporting to RSPO their calculations of GHG emissions according to PalmGHG.³²⁴ Palm GHG measures emissions from operations, including land use practices. However, RSPO currently allows growers and millers to exclude emissions and sequestration from land use change from their calculations of GHG emissions.³²⁵ Starting 1 January 2017, inclusion of GHG emissions from land use change will be required.

Reporting

Growers and millers are required to create publicly available summary reports (Annual Communications of Progress – ACOPs) on certification and HCV assessments.³²⁶ Summary reports on certification include a summary of findings, any identified noncompliance, and issues raised by stakeholders.

HCV assessment summary reports must include maps of concession-level HCV management areas, a summary table of the HCVs found, their status (confirmed presence or absence, or potential presence), and extent (ha).³²⁷ The key maps of HCV Management Areas should be appropriately scaled, clear and legible, and include a number, title, date, GPS coordinates and legend. To prevent misinterpretation or misuse, all maps should be labeled with “Draft” or “Version no.” if appropriate. The summary report should also include in annexes GPS maps, satellite imagery, aerial photography, etc., long lists of species, soil analyses, hydrology data, among other information.

The only case where summary report information will not be publicly available is when information is commercially confidential or where disclosure would result in negative environmental or social outcomes. While public reporting of GHG emissions is desirable it remains voluntary until the end of the RSPO implementation period. Starting 1 January 2017, growers and millers must ensure that new plantation developments are designed to minimize net GHG emissions and commit to reporting their progress publicly.

The RSPO website includes a list of all the certified growers and their principles and criteria assessment progress, including information on the member name, applicable mill or supply base, status, assessment date, approval date, assessment type and any relevant documents. Procedures for complaints, grievances and resolution mechanisms must also be made public as well as the scope of each certificate (e.g., which sites, tonnages and/or process are approved).

Guidance documents:

- For the RSPO New Planting Procedures (NPP), RSPO provides growers and millers with flow charts, detailed process flows, a guidance document, templates for summary reports of assessments and summary reports of planning and management, and RSPO-approved HCV assessors.³²⁸

Verification

Annual surveillance audits are done to evaluate a grower or miller’s compliance with the RSPO Principles and Criteria.³²⁹

³²⁴ RSPO Principles and Criteria for the Production of Sustainable Palm Oil, Specific Guidance for 5.6.3. 2013.

³²⁵ Usage of PalmGHG During the Implementation Period (now till 31st Dec 2016).

³²⁶ RSPO Certification Systems, 2007.

³²⁷ HCV Assessments for RSPO Certification: Reporting Requirements, 2012.

³²⁸ RSPO Procedures for New Plantings – Integrated Process Flow Chart, 2014; RSPO High Level Flow Chart for New Plantings Procedures, 2012; RSPO Detailed Process Flow for New Plantings Procedures, 2012; RSPO Procedures for New Oil Palm Plantings Guidance Document, 2010; RSPO Notification of Proposed New Planting Template; RSPO New Planting Procedures Format for Summary Report of SEIA and HCV Assessments, 2010; RSPO New Planting Procedures Format for Summary Report of Planning and Management, 2010; RSPO Website: HCV. Available at http://www.rspo.org/en/document_hcv.

³²⁹ RSPO FAQ on Producer Certification.

Chain of Custody

The General CoC requirements apply to any organization throughout the supply chain that takes legal ownership and physically handles RSPO Certified Sustainable oil palm products at a location under control of the organization including outsourced contractors.³³⁰ There are four supply chain models approved by RSPO:

- Identity Preserved: from mill to the certified end product
- Segregation: from mill to the certified end product
- Mass Balance: from mill to the certified end product
- Book and Claim

There are specific requirements for each supply chain model, including CPO Mills, multi-site certification and group certification. Specific requirements exist for documenting procedures, purchasing and goods in, outsourcing activities, sales and goods out, registration of transactions, record keeping, conversion factors, and management review, among others.

To increase transparency and traceability, RSPO has developed the eTrace system, which tracks the trade of RSPO Certified Sustainable Palm Oil.³³¹

Subsidiary relationships

The mill will develop and implement a plan to ensure that 100% of associated smallholders and out growers are of certifiable standard within 3 years.³³²

Partial certification is allowed only if: (a) the organization is a member of RSPO; and (b) there is a time-bound plan for achieving certification of all relevant entities; and (c) there are no significant land conflicts, no replacement of primary forest or any area containing HCVs since November 2005, no labor disputes, and no evidence of noncompliance with law in any of the non-certified holdings.

Noncompliance

The international RSPO criteria include compulsory indicators, labeled as (M), which automatically trigger "Major Nonconformities" when not complied with.³³³ Lack of compliance with other indicators triggers a "Minor Nonconformity."

Annual surveillance assessments take place to monitor continued compliance.³³⁴ Minor nonconformities must be addressed by the next annual assessment, and major nonconformities must be addressed within 60 days. If major nonconformities are not rectified, the certification is suspended. If, after suspension, the major nonconformity remains unresolved for another 60 days, the certification is withdrawn.

Once a certificate is issued, any non-conformity is seen as major and the integrity of the certification is at risk. A maximum of one month is given to growers or millers to address the nonconformity, and if it is not rectified it could result in suspension, withdrawal and a full re-audit.

Certificates for a company's entire holding are suspended if there is noncompliance by related companies of the partial certification requirements.³³⁵

Where land has been cleared since November 2005, and without a prior and adequate HCV assessment, it will be excluded from the RSPO certification program until an adequate HCV compensation plan has been developed and accepted by RSPO.³³⁶ Compensation is required for any clearance after 2005 without prior HCV assessment on land under the parent organization or its majority owned and/or managed subsidiaries that are registered as RSPO members, regardless of whether clearing occurred before the land was acquired or leased.³³⁷

There are several key requirements for the Remediation and Compensation Procedures, including:

- Disclosure of non-conformant land clearings
- Land use change analysis and liability assessment with identification of areas where planting is prohibited and calculation of additional compensation liability
- Development of Remediation and Compensation Plan which is evaluated by a Compensation Panel

Early cases of clearance without HCV assessment carry less compensation liability than more recent cases, and the procedures distinguish between non-compliant clearance carried out:

- After November 2005 to November 2007 (when P&C were being trialed)
- Between November 2007 and December 31, 2009
- Between January 1, 2010 (when New Planting Procedures were introduced) and May 9, 2014

Growers who enter into compensation processes have the options of:

- Compensate the total cleared area using a coefficient of 1 without conducting a land use change analysis
- Conduct a LUC analysis relating to all individual cases of land clearance after November 1, 2005 without prior HCV assessment

Any areas cleared without prior HCV assessment shall be classified into four categories (assigned multiplication coefficient as a proxy for value as a habitat for biodiversity) through analysis of remote sensing data of vegetation status in November 2005

- Coefficient 1.0: structurally complex forest (including primary forest), regenerating, selectively logged forests with elements of high canopy
- Coefficient 0.7: structurally degraded but ecologically functional natural forest
- Coefficient 0.4: multi-species agroforestry
- Coefficient 0: monoculture tree and non-tree plantations, other permanently cultivated, developed or open degraded land

Conservation liability is calculated as:

- Land cleared after November 2005 – November 2007

³³⁰ <http://www.rspo.org/resources/key-documents/certification/rspo-supply-chain-certification>

³³¹ RSPO Website: eTrace FAQs. Available at http://www.rspo.org/en/etrace_faqs.

³³² RSPO Certification Systems. 2007.

³³³ RSPO Certification Systems, 2007.

³³⁴ RSPO FAQ on Producer Certification.

³³⁵ RSPO Certification Systems. 2007.

³³⁶ RSPO Principles and Criteria for the Production of Sustainable Palm Oil, Specific Guidance for 7.3.1. 2013.

³³⁷ RSPO Remediation and Compensation Procedures Related to Land Clearance without Prior HCV Assessment. 2014.

- Land controlled by non-member at time of clearance: compensation required only for social HCVs (4, 5, 6) if there is insufficient proof of appropriate negotiation process
- Land controlled by RSPO member without certified units: compensation required only for social HCVs (4, 5, 6) if there is insufficient proof of appropriate negotiation process
- Land controlled by RSPO member with certified units: N/A (no certified areas in existence yet)
- Land cleared between December 2007 – December 31, 2009
 - Land controlled by non-member at time of clearance: compensation required only for social HCVs (4, 5, 6) if there is insufficient proof of appropriate negotiation process
 - Land controlled by RSPO member without certified units: sum of all areas cleared commercially without prior HCV assessment x their vegetation coefficient(s) in November 2005
 - Land controlled by RSPO member with certified units: sum of all areas cleared without prior HCV assessment x vegetation coefficient(s) in November 2005
- Land cleared between January 1, 2010 – May 9, 2014
 - Land controlled by non-member at time of clearance: sum of all areas cleared commercially without prior HCV assessment x their vegetation coefficient(s) in November 2005
 - Land controlled by RSPO member without certified units: sum of all areas cleared without prior HCV assessment x vegetation coefficient(s) in November 2005
 - Land controlled by RSPO member with certified units: twice the sum of all areas cleared without prior HCV assessment x vegetation coefficient(s) in November 2005
- Future land clearing after May 9, 2014
 - Land controlled by non-member at time of clearance: sum of all areas cleared without prior HCV assessment x vegetation coefficient(s) in November 2005
 - Land controlled by RSPO member without certified units: expel from RSPO
 - Land controlled by RSPO member with certified units: expel from RSPO

1.13 Roundtable on Responsible Soy (RTRS) Association

Overview: Launched in 2006 and providing certification since 2011, RTRS currently has more than 150 members from 22 countries. In 2010, 250,000 hectares of RTRS soy was produced. As of 2012, less than 1% of global soy production is RTRS certified.³³⁸

Objective: RTRS is a platform that encourages responsible production of soy beans to reduce social and environmental impacts while maintaining or improving the economic status of the producer. RTRS offers certification for producers whose soy farming practices are in line with the RTRS Standard for Responsible Soy Production. This standard includes a number of Principles and Criteria with which certified producers must comply. Chain of Custody certification is also offered to players other than producers in the soy value chain.

Commodity: Soybean

Registry: <http://www.responsiblesoy.org/en/mercado/volumenes-y-productores-certificados/>

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity	Producers
Environmental Targets	<p>Social, environmental and agricultural aspects are identified where improvement is desired, and a number of indicators are selected and a baseline established to monitor continuous improvement on those aspects.³³⁹ Producers are free to choose which indicators are relevant to demonstrate continuous improvement.</p> <p>Producers must undergo on and off-site social and environmental assessments prior to establishment of large or high risk new infrastructure.³⁴⁰ These assessments must identify measures to minimize or mitigate impacts, document them and ensure they are being implemented.</p> <p>Efforts must be made to reduce emissions and increase sequestration of GHG on the farm.³⁴¹ The total direct fossil fuel use over time is recorded and the volume per ha and per unit of product for all activities related to soy production is monitored. On farms producing multiple crops, an estimate of the use of fossil fuel for soy production should be calculated (field operations and on-farm transport).³⁴² If no justification (e.g., planting lost due to drought that needed to be replanted) is given for an increase in the intensity of fossil fuel used, an</p>

³³⁸ RTRS Website. Available at <http://www.responsiblesoy.org/quienes-somos/que-es-la-rtrs/?lang=en>.

³³⁹ RTRS Standard for Responsible Soy Production, Principle 1.3. 2013.

³⁴⁰ Id., Principle 4.1.

³⁴¹ Id., Principle 4.3.

³⁴² Id., Annex 1: Guidance.

action plan to reduce use must be produced.³⁴³

Soil organic matter is monitored to quantify change in soil carbon and steps are taken to mitigate negative trends. Opportunities to increase carbon sequestration through restoration of native vegetation, forest plantations and other means are also identified.

No expansion for soy cultivation can occur on land cleared of native habitat after May 2009 except in specific circumstances, one being that it is in line with an RTRS-approved map and system.³⁴⁴ Expansion after May 2009 is also possible where any area cleared in the past 12 years can be used for soy expansion, unless regenerated vegetation has reached the definition of native forest, or where there has been no expansion in native forests.

The last possibility for acceptable expansion after 2009 is for areas that are not native forest, where expansion into native habitat only occurs in one of the following: (1) official land-use maps (or if no such maps are available then maps produced by the government under the Convention of Biological Diversity are used and expansion only occurs outside priority areas) are used and expansion only occurs in areas designated for expansion by zoning; or (2) a High Conservation Value Area (HCVA) assessment is done prior to clearing and HCVAs are protected.

Clearing of native forests is not permitted after May 2009, even if an official land use map (option 1) permits this.³⁴⁵ When there is a national interpretation of the Principles and Criteria, the official land-use maps should: (1) further elaborate on the definition of native forest, including biome identification; (2) not establish requirements less stringent than the generic definition; (3) provide guidance on how these areas can be identified.³⁴⁶

RTRS PES schemes are possible, where the area and type of vegetation of all voluntary reserves of native vegetation are recorded in the certification audit.³⁴⁷ Following certification, details of the date of registration for certification and the area and type of vegetation of voluntary reserves are added to an RTRS register. When the RTRS PES scheme is developed, payments are available retroactively to the date of registration for certification to all producers on the register.

Guidance documents:

- The RTRS Standard for Responsible Soy Production (Principles and Criteria) contains an Annex with Guidance for each of the Principles and Criteria which all auditors, growers and managers are required to follow.³⁴⁸
- RTRS EU RED Compliance Requirements for Producers document outlines the requirements for complying with both RTRS and EU RED.³⁴⁹

Level of ambition: RTRS implements a stepwise approach to facilitate producers to step into the RTRS certification, for which RTRS has classified the indicators into 3 different categories: (1) immediate compliance indicators, (2) short-term compliance indicators, and (3) mid-term compliance indicators.³⁵⁰ During the first year of the initial certification assessment a producer only needs to comply with the immediate compliance indicators and 10% of total short-term and mid-term compliance indicators. One year from the initial assessment it must meet all of the immediate and short-term indicators. Three years from the date of the initial assessment, the producer must meet 100% of the indicators.

Definitions

Native Forest: areas of native vegetation of 1ha or more with canopy cover of more than 35% and where some trees (at least 10 trees per ha) reach 10m in height (or are able to reach these thresholds in situ).³⁵¹ Examples include Amazon, Mata Atlantica, Yungas, Chiquitano, and forest areas of NE China.

HCV Areas: critical areas in a landscape which need to be appropriately managed in order to maintain or enhance HCVs. There are six main types of HCV Area (FSC).³⁵²

HCV1 – areas containing globally, regionally or nationally significant concentrations of biodiversity values (e.g., endemism, endangered species, refugia).

HCV2 – globally, regionally or nationally significant large landscape-level areas where viable populations of most if not all naturally-occurring species exist in natural patterns of distribution and abundance.

HCV3 – areas that are in or contain rare, threatened or endangered ecosystems.

HCV4 – areas that provide basic ecosystem services in critical situations (e.g., watershed protection, erosion control).

HCV5 – areas fundamental to meeting basic needs of local communities (e.g., subsistence health).

HCV6 – areas critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious

³⁴³ Id., Principle 4.3.

³⁴⁴ Id., Principle 4.4.

³⁴⁵ Id., Annex 1: Guidance.

³⁴⁶ Id., Annex 6: Guidance for National Interpretations.

³⁴⁷ Id., Annex 1: Guidance.

³⁴⁸ RTRS Standard for Responsible Soy Production, Annex 1: Guidance. 2013.

³⁴⁹ RTRS EU RED Compliance Requirements for Producers, 2013.

³⁵⁰ RTRS Accreditation and Certification Requirements for Responsible Soy Production, 2014.

³⁵¹ RTRS Standard for Responsible Soy Production, Annex 1: Guidance. 2013.

³⁵² Id., Annex 3: Glossary of Terms.

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significance identified in cooperation with such local communities).

Wetlands: areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six meters (Ramsar Convention).

Timelines	<p>Cut-off date: May 2009</p> <p>Implementation period: 5 years</p>
Geographic Area	Maps of the farm are required showing native vegetation, as well as a plan to ensure that native vegetation is maintained. ³⁵³ Maps are also required of all watercourses, including the status of riparian vegetation. ³⁵⁴ The certification assessment summary report must include the farm's geographic coordinates and size in hectares.
Baselines	<p>Maps of the farm are required showing native vegetation, as well as a plan to ensure that native vegetation is maintained.³⁵⁵ Maps are also required of all watercourses, including the status of riparian vegetation.³⁵⁶ Where the vegetation has been removed, there must also be a plan and timetable for restoration.</p> <p>Measures are taken to prevent interference in production systems of neighboring areas.³⁵⁷ When a change in production could impact neighboring production systems, the producer must implement and maintain a buffer strip of 30m.³⁵⁸</p> <p>Any changes to the farm area included in the scope of the certificate including expansion and boundary changes must be included in the annual surveillance assessments.³⁵⁹ The certification assessment summary report must include the farm's geographic coordinates, size in hectares, and estimated tonnage of soy to be produced per year.</p> <p>The baseline year is the year of the first certification assessment.³⁶⁰</p> <p>Guidance documents:</p> <ul style="list-style-type: none">• An HCV Toolkit provides guidance on undertaking the HCVA assessment.³⁶¹• RTRS-approved maps and system are national level macro-scale maps which provide guidance on responsible expansion (four categories of areas).³⁶²
MMRV	<p>Monitoring</p> <p>There must be a plan, which is being implemented, to ensure that native vegetation is being maintained</p> <p>Measurement</p> <p>The RTRS EU RED Standard provides a Methodology for Calculating Greenhouse Gas Emissions of Soybean Production under the European Commission – Renewable Energy Directive (EU-RED).³⁶³</p> <p>Reporting</p> <p>A publicly-available summary must be produced with information about the performance of each certified organization with respect to each criterion, but cannot contain commercially-sensitive information.³⁶⁴ The first public summary must be published on the certification body's and RTRS's database of registered certificates before a certificate is issued.</p> <p>Verification</p> <p>Assessments or updates are done at least annually to ensure compliance with the Principles and Criteria. Prior to the end of a 5-year certification period, a full re-assessment must be done to issue a new certificate. The timing of assessments is determined by the certification body, but must take place during periods when farming operations are in place and whenever possible during the most critical periods of production (planting, spraying and harvesting).³⁶⁵ During assessments, the area and type of vegetation of all voluntary reserves of native vegetation must be recorded.</p> <p>Sites for inspection should be based on an evaluation of the critical points of risk in the management system and potential social and environmental risks identified. The certification bodies must have a procedure which ensures that for each assessment the lead auditor records how sites were chosen. The certification body may also conduct unannounced surveillance assessments. If the main assessment did not take place during harvest, at least one of the annual surveillance assessments must do so.</p>

³⁵³ RTRS Standard for Responsible Soy Production, Principle 4.5. 2013.

³⁵⁴ Id., Principle 5.2.

³⁵⁵ RTRS Standard for Responsible Soy Production, Principle 4.5. 2013.

³⁵⁶ Id., Principle 5.2.

³⁵⁷ Id., Principle 5.10.

³⁵⁸ RTRS Standard for Responsible Soy Production, Annex 1: Guidance. 2013.

³⁵⁹ RTRS Accreditation and Certification Standard for Responsible Soy Production, 2014.

³⁶⁰ RTRS Standard for Responsible Soy Production, Principle 1.3. 2013.

³⁶¹ Id., Annex 1: Guidance.

³⁶² Id., Annex 4: RTRS Approach to Responsible Conversion.

³⁶³ RTRS EU RED Compliance Requirements for Producers, 2013.

³⁶⁴ Id.

³⁶⁵ RTRS Accreditation and Certification Standard for Responsible Soy Production, 2014.

Guidance documents:

- Certification bodies are given guidelines on the content and format of the public summary reports for certification and annual assessments.³⁶⁶

Chain of Custody	<p>Where organizations growing soy also purchase and handle soy grown by third parties, they shall apply the General Chain of Custody System Requirements for the Supply Chain instead of the General Chain of Custody System Requirements for Producers, which apply to any organization growing soy and making RTRS claims about the soybeans they supply.³⁶⁷</p> <p>RTRS has modular requirements for mass balance, segregated, multi-site, non-GM, and EU RED CoC certification.</p>
Subsidiary relationships	<p>RTRS Group/Multi-site Certification allows large entities with multiple sites or groups of members to be certified under one managing entity.³⁶⁸ Nonconformity of a single member or single site can lead to suspension and withdrawal of the entire certificate, but only in circumstances where the nonconformity illustrates a collapse of management on a larger scale. Multi-site certification is available, but not required, for entities in control of more than one soy farm wishing to certify multiple farms.³⁶⁹ The internal control system of the organization is assessed for compliance, along with a sample of the multiple sites.³⁷⁰</p> <p>Partial certification is only available for organizations with more than one management unit and/or having a controlling interest of more than 51% in more than one company only if the organization is a member of RTRS and it has completed a self-declaration form which declares: (1) intention to comply with RTRS principles and criteria in all properties outside scope of certification, and (2) that all other management units and subsidiary company sites comply with the law.</p>
Noncompliance	<p>Non-conformities are classified as minor (e.g., temporary lapse, unusual/non-systematic, limited in temporal and spatial scale and do not result in fundamental failure to achieve RTRS objectives), and major (e.g., is likely to result in a fundamental failure to achieve RTRS objectives or is a failure in a significant part of the applied management system).³⁷¹</p> <p>Non-conformities lead to Corrective Action Requests (CARs), which must be addressed for major nonconformities within 30 days. Failure to address and rectify the major nonconformity results in a suspension of the certificate for a maximum of 60 days, during which no products may be sold as RTRS certified. Failure to rectify the nonconformity after the suspension period results in withdrawal, in which case a new main compliance assessment would be required. Failure to address a minor nonconformity in the period the certification body requests raises it to a major nonconformity.</p> <p>In group or multi-site certifications, nonconformities may either be group or member/site. Group nonconformities may be caused by failure to fulfill a manager responsibility, failure to ensure that group members comply with a CAR, or failure to fulfill a group member responsibility sufficient in number or extent to demonstrate that the manager's system for internal audit has broken down. These actions result in major nonconformities.</p> <p>Member (site) nonconformities may be caused by failure of an individual RTRS principle, criteria or indicator at the level of an individual group member/site. Members/sites may be issued individual CARs, which must be addressed within 30 days of issuance or will result in suspension.</p>

1.14 Sustainable Agriculture Network (SAN)

Overview: The Sustainable Agriculture Network (SAN) was legally established as a group of international non-profit organizations working for the conservation of biodiversity and rural development.³⁷² SAN has over 1,800 certifications in 40 countries, including 1.03 million farms covering over 3 million hectares of over 87 different crops.³⁷³

Objective: SAN promotes productive and efficient agricultural systems, biodiversity conservation and sustainable human development through the application of its Sustainable Agriculture Standards, which include social, environmental and productive aspects.³⁷⁴ SAN provides certification to small, medium and large farms to promote best agriculture practices and sustainable farming.³⁷⁵ The optional Climate Module provides explicit direction to farmers for the protection and conservation of ecosystems in their farm areas.³⁷⁶

³⁶⁶ RTRS Accreditation and Certification Requirements for Responsible Soy Production, 2014.

³⁶⁷ <http://www.responsiblesoy.org/documentos/rtrs-chain-of-custody-standard-pdf/?lang=en>

³⁶⁸ RTRS Group and Multi-site Certification Requirements for Certification Bodies, 2014.

³⁶⁹ RTRS Group and Multi-site Certification Standard, 2014.

³⁷⁰ RTRS Accreditation and Certification Standard for Responsible Soy Production, 2014.

³⁷¹ RTRS Accreditation and Certification Standard for Responsible Soy Production, 2014.

³⁷² SAN Website: Who Are We? Available at <http://san.ag/web/about-us/who-are-we-2/>.

³⁷³ SAN Website: Our Impact, the SAN in figures. Available at <http://san.ag/web/our-impact/the-san-in-figures/>.

³⁷⁴ SAN Website: Who Are We? Available at <http://san.ag/web/about-us/who-are-we-2/>.

³⁷⁵ SAN Website: Who Are We? Available at <http://san.ag/web/about-us/who-are-we-2/>.

³⁷⁶ SAN Climate Module Criteria for Mitigation and Adaptation to Climate Change, 2011.

Commodity: Agricultural products

Registry: <http://san.ag/web/our-impact/the-san-in-figures/>

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity Farms, producers

Environmental Targets Sustainable Agriculture Standard

From the date of application for certification onwards, the farm must not destroy any natural ecosystem.³⁷⁷

Production areas must not be located in places that could provoke negative effects on national parks, wildlife refuges, biological corridors, forestry reserves, buffer zones or other public and private biological conservation areas.³⁷⁸

Cutting, extracting or harvesting trees, plants and other non-timber forest products is only allowed in instances when the farm implements a sustainable management plan that has been approved by the relevant authorities, and has all the permits required by law.³⁷⁹ If no laws exist, the plan must have been developed by a competent professional.

The farm must implement a plan to maintain or restore the connectivity of habitats at the landscape level (e.g., through native vegetation on roadsides along water courses or river banks, shade trees, live fences and live barriers).³⁸⁰

Two-year soil samples are required.³⁸¹ There must be a vegetative ground cover establishment and expansion plan that indicates the areas with existing cover, as well as areas where cover will be established in the future.³⁸² The farm must include a timeframe for these activities.

Critical Criterion: new production areas must only be located on land with the climatic, soil and topographic conditions suitable for intensity level of the agricultural production planned.³⁸³ The establishment of new production areas must be based on land use capacity studies that demonstrate long-term production capacity. The cutting of natural forest cover or burning to prepare new production areas is not permitted.

Climate Module and Sustainable Agriculture Standard

All existing natural ecosystems must be identified, protected and restored through a conservation program, which must include the restoration of natural ecosystems or the reforestation of areas with the farm that are unsuitable for agriculture.³⁸⁴

Farms with agroforestry crops located in areas where the original natural vegetative cover is forest must establish and maintain a permanent agroforestry system, which must consist of a minimum of 12 native species per hectare on average, tree canopy must comprise at least two strata or stories, and the overall canopy density on the cultivated land is at least 40% (not optimal for all areas, shade density is managed to optimize agronomic and conservation values).³⁸⁵ Farm areas where the original natural vegetation is not forest must dedicate at least 30% of the farm area for conservation or recovery of the area's typical ecosystems and implement a plan to establish or recover natural vegetation within 10 years.

Climate Module

Under the Climate Module, farms must address climate change in their environmental management systems, annual record GHG emission data (not from land use change), map land use and land use changes, plant native or adapted species or promote natural regeneration, and maintain or increase carbon stocks by planting or conserving trees and woody biomass.³⁸⁶

Farms are required to have a written conservation program identifying patches of primary and secondary forests, bush lands, grass lands or secondary growth without significant human disturbance for a minimum of 10 years. These areas must be demarcated and signaled for workers and community members and are designated for protection, natural regeneration or planting of natural vegetation.

If there has been any destruction of natural ecosystems between 1 November 1999 and 1 November 2005, a farm must implement the following mitigations:

- Conduct an analysis of the ecosystem destruction to document the scope and ecological impact of destruction;
- Develop a mitigation plan with advice from a competent professional that is consistent with applicable legislation and that compensates for the negative impact; and
- Implement the activities of the mitigation plan, including e.g. the set aside of a significant percentage of the farm area for

³⁷⁷ SAN Sustainable Agriculture Standard, Principle 2.2. 2010.

³⁷⁸ Id., Principle 2.3.

³⁷⁹ Id., Principle 2.4.

³⁸⁰ Id., Principle 2.9.

³⁸¹ Id., Principle 9.2.

³⁸² Id., Principle 9.3.

³⁸³ Id., Principle 9.5.

³⁸⁴ Id., Principle 2.1.; SAN Sustainable Agriculture Standard, Principle 2.1. 2010.

³⁸⁵ Id., Principle 2.8.

³⁸⁶ SAN Climate Module Criteria for Mitigation and Adaptation to Climate Change, 2011.

conservation purposes.

No production activities are permitted in areas with high levels of protection, such as national parks.³⁸⁷ Sustainable agricultural activities are allowed on other categories of protection, such as biological corridors, if national legislation allows it. Crop production is prohibited on natural ecosystems such as secondary forests or other crops in dried wetlands or mature secondary growth of significant value to local biodiversity.

Riparian forests within the buffer strip of ecosystems must be recovered by the farm through natural regeneration activities, planting trees or other native species.³⁸⁸

Guidance documents:

- The SAN General Interpretation Guide – Sustainable Agriculture Standard provides an “interpretation guide” for each principle and objective.³⁸⁹
- There are local indicators or interpretation guidelines that define how the general sustainable agriculture standard is interpreted and applied to particular crop and country situations.³⁹⁰ There is also a local standard for the means of verification, which details the elements of compliance for criteria in audits and considers the applicable environmental, social and labor legislation in each country with certification activities.
- There is a Table of Separations outlining the requirements for buffer zones in Annex 1 of the Sustainable Agriculture Standard.³⁹¹

Level of ambition: Compliance with the Climate Module is measured and verified separately from compliance with the Sustainable Agriculture Standard, but can be combined with the certification audit process.³⁹² Organizations must meet 80% of the 15 Climate Module criteria—and obtain Sustainable Agriculture Standard certification prior to applying for the Climate Module—to be certified.

Certification with the Sustainable Agriculture Standard requires minimum compliance by principle of 50%, a minimum overall score of 80%, and not having any non-conformity with one or more critical criteria (0% compliance).³⁹³

Definitions

Biomass: organic material both above and below ground, and both living and dead, e.g., trees, crops, grasses, tree litter, roots, etc. (IPCC).³⁹⁴ Renewable organic materials, such as wood, agricultural crops or wastes, and municipal wastes, especially when used as a source of fuel or energy.

Carbon sequestration: the process of removing carbon from the atmosphere and storing it in solid form. In plants this is achieved through photosynthesis which uses sunlight to turn atmospheric carbon dioxide into biomass.

Carbon stock: the carbon stock in any one place is the sum of the carbon stored in its biomass.

Tree inventory: documented record of tree species names, size, DBH (diameter at breast height) and tree height of those within the farm boundaries. Characteristics of the site should also be listed such as soil type and condition, root space, slope, effective soil depth and degree of conservation and vulnerability to extreme weather events.

Woody biomass: trees, shrubs, bushes or products derived from woody plants, which are plants that use wood as its structural tissue.

Timelines

Cut-off date: 1 November 2005 (high value ecosystems).³⁹⁵

Certification period: 3 years

Geographic Area

Farms are required to locate natural ecosystems and high value ecosystems on and around the farm on a map.³⁹⁶ For the Climate Module, farmers are required to produce and maintain land use maps and record any land use changes.³⁹⁷

Baselines

Farms are required to locate natural ecosystems and high value ecosystems on and around the farm on a map.³⁹⁸ Two-year soil samples are required.³⁹⁹ There must be a vegetative ground cover establishment and expansion plan that indicates the areas with existing cover, as well as areas where cover will be established in the future. The farm must include a timeframe for these activities.

For the Climate Module, farmers are required to produce and maintain land use maps and record any land use changes.⁴⁰⁰ Social and environmental impact assessments are required before any changes or new work, and must include procedures for monitoring and evaluating the significant impacts identified and not foreseen during the development of new works or activities.⁴⁰¹

³⁸⁷ Id., Principle 2.3.

³⁸⁸ Id., Principle 2.6.

³⁸⁹ SAN General Interpretation Guide – Sustainable Agriculture Standard, 2014.

³⁹⁰ SAN Website. Accessed 17 February 2015. Available at <http://san.aq/web/our-standard/types-of-standards-and-policies/>.

³⁹¹ SAN Sustainable Agriculture Standard, Annex 1. 2010.

³⁹² SAN Climate Module Criteria for Mitigation and Adaptation to Climate Change, 2011.

³⁹³ SAN Farm and Administrator Certification Policy. 2013.

³⁹⁴ SAN Climate Module Criteria for Mitigation and Adaptation to Climate Change, 2011.

³⁹⁵ SAN General Interpretation Guide – Sustainable Agriculture Standard, Principle 1.6. 2014.

³⁹⁶ SAN General Interpretation Guide – Sustainable Agriculture Standard, Principle 2.2. 2014.

³⁹⁷ SAN Climate Module Criteria for Mitigation and Adaptation to Climate Change, 2011.

³⁹⁸ SAN General Interpretation Guide – Sustainable Agriculture Standard, Principle 2.2. 2014.

³⁹⁹ Id., Principle 9.2.

⁴⁰⁰ SAN Climate Module Criteria for Mitigation and Adaptation to Climate Change, 2011.

⁴⁰¹ SAN General Interpretation Guide – Sustainable Agriculture Standard, Principle 1.6. 2014.

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Baseline information about land use changes in high risk regions is reviewed for the evaluation of land use history, including aerial photographs, satellite images, old photographs of the ecosystems, interviews with workers and community members.⁴⁰² There is no information on baselines or reference levels for calculating GHG emissions.

MMRV

Monitoring

- The farm's social and environmental management system must assess climate risks and vulnerabilities and include plans to adapt to and mitigate climate change
- The farm must annually record data on GHG emissions sources related to, at minimum, nitrogen fertilizer input, pesticide input, fossil fuel use for machinery, methane generated in waste and wastewater treatment and animal husbandry
- The farm must map its land use and keep records of land use changes
- The farm must conduct tree inventories every five years
- There must be a written conservation program that identifies areas of primary and secondary forests, bush lands, grass lands or secondary growth without significant human disturbance for minimum 10 years, streams, rivers, pools, ponds, lakes, lagoons, and other wetland such as swamps, marshes, mangroves or bogs
- Farm must prove no high value ecosystems have been destroyed after November 2005 using land use history, baseline information about land use changes in high risk regions including aerial photographs, satellite images, old photos of the ecosystems, interviews with workers and community members

Measurement

No information

Reporting

Farms must report GHG emission data annually, but those reports do not need to include emissions from land use or land use change.⁴⁰³

Verification

Annual audits are conducted throughout the implementation period, along with the possibility for random audits at the discretion of the certification body.⁴⁰⁴ SAN recognizes 5 types of audits: 2 regular (certification audit, annual audit) and 3 irregular (verification audit, research audit, and non-programmed audits). Irregular audits are conducted depending on the circumstances and have different purposes: follow up on a corrective action plan, follow up on a complaint, and general control and oversight, respectively. Annual audits must always be conducted on site. An on-site inspection must be conducted no more than 60 days after the closing meeting of the original audit.

The Climate Module follows the same annual audit requirements, certification scope, scoring system and general requirements for certification including sanctions, as the Sustainable Agriculture Standard.⁴⁰⁵

Guidance documents:

- The SAN Farm and Administrator Certification Policy provides the rules for farms on the certification, auditing and verification process. It also provides detailed information for the calculation of sample sizes for various audits under group models.⁴⁰⁶

Chain of Custody

Certified farms and group administrators that manipulate, sell or mix products originating from farms or group administrators that are not certified must be certified to the CoC standard and the evaluation of critical criterion 1.10 (traceability) will be substituted by the CoC Standard evaluation.⁴⁰⁷

The SAN CoC standard includes principles for the participating operator in charge of ensuring traceability throughout the supply chain, the quality and availability of training procedures for personnel involved with the supply chain, demonstrating traceability through transaction certificates or validations or volume reconciliation in the case of mass balance, use of the Rainforest Alliance certified seal, and specific rules for multi-site (2 or more) operators.

Subsidiary relationships

There are various group models under the SAN, which allow companies to oversee certification compliance with their subsidiaries, producers and suppliers.⁴⁰⁸ Group model certifications are audited in representative sample groups, which must be statistically representative of all member farms. All members of a group farm must be located in the same country.

Noncompliance

Certifications will be cancelled if an organization: does not comply with certification requirements during a certification audit or an annual audit and the certification body does not authorize a verification audit; does not comply with requirements during an irregular audit; refuses to receive a non-programmed audit twice; does not permit a research audit ordered by certification body; does not comply with any binding requirements; does not comply with the conditions of the Certification Agreement signed with certification body; does not comply with provisions of the Rainforest Alliance Certified Use of Seal Guidelines; or it voluntarily decides to request cancellation.⁴⁰⁹

A minor non-conformity is compliance with just 50% of the standard's criterion, and a major non-conformity is compliance with 0% of the standard's criterion.

An organization can still sell products as SAN certified for up to 12 months after cancellation provided the product was harvested while the certificate was valid. A new certification audit for an organization whose certificate has been cancelled is conducted at least 4 months following cancellation.

⁴⁰² SAN General Interpretation Guide – Sustainable Agriculture Standard, Principle 2.2. 2014.

⁴⁰³ Id.

⁴⁰⁴ SAN Farm and Administrator Certification Policy, 2013.

⁴⁰⁵ SAN Climate Module Verification Rules.

⁴⁰⁶ SAN Farm and Administrator Certification Policy, 2013.

⁴⁰⁷ http://www.san.ag/biblioteca/docs/SAN-P-5-1.2_Certification_Policy.pdf

⁴⁰⁸ SAN Farm and Administrator Certification Policy, 2013.

⁴⁰⁹ SAN Farm and Administrator Certification Policy, 2013.

1.15 UTZ Certified (UTZ)

Overview: UTZ Certified (UTZ) was established in 1999 as Utz Kapeh, which means “good coffee,” as a program to implement sustainable quality coffee on a large scale in the worldwide market. The head office was opened in The Netherlands in 2002, and since its market launch UTZ Certified has grown to be one of the leading sustainable coffee programs.

Objective: UTZ aims to make sustainable farming the norm, where farmers implement good agricultural practices and manage their farms profitably with respect for people and the planet, where the industry invests in and rewards sustainable production, and where consumers can enjoy and trust the products they buy.⁴¹⁰ Producers are certified for sustainable commodity production standards either through individual, group, multi-group or multisite certification, and supply chain actors are certified against the chain of custody standard to ensure traceability.

Commodity: Coffee, cocoa, tea, and hazelnuts

Registry: <https://www.utzcertified.org/products>

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity	Producers, producer groups
Environmental Targets	<p>Individual and multi-site certification/Group and multi-group certification No deforestation or degradation of primary forest, and no deforestation or degradation of natural forest (not including primary forests) unless:⁴¹¹</p> <ul style="list-style-type: none">• A legal land title and/or landowner permission is available• Government permits are available (if required), and• There is a report produced by an environmental expert confirming that the appropriate clearing techniques are used, and that there is compensation with reforestation activities of at least equal ecological value. <p>No production or processing can occur in or within 2 km of protected areas unless it is allowed under a management plan of the area and the management plan is implemented.⁴¹²</p> <p>From year 2 on, threatened endangered species in the production area must be identified and protected.⁴¹³</p> <p>From year 4 on, the producer must promote ecological diversity by protecting and enhancing on-farm and/or neighboring habitats and ecosystems (e.g., planting trees, preservation of semi-natural areas).⁴¹⁴</p> <p>From year 3 on, measures must be taken and documented to address important climate change impacts identified in the risk assessment.⁴¹⁵</p> <p>Cocoa Module⁴¹⁶ From year 2 on, there must be at least 12 mature shade trees per hectare and distributed evenly on cocoa plots.</p> <p>Coffee Module⁴¹⁷ From year 3 on, an adequate number of shade trees per hectare are planted and/or maintained on coffee plots.</p> <p>Rooibos Module⁴¹⁸ From year 3 on, wetlands are identified and monitored for signs of degradation and erosion. Where historical degradation has occurred, the wetland and its buffer zones are rehabilitated.</p> <p>Authorization must be obtained from all relevant authorities prior to cultivating virgin land or land uncultivated for more than 10 years.</p> <p>From year 4 on, ecological rehabilitation of areas that are not used for agricultural production should be stimulated on the far as much as possible.</p>

⁴¹⁰ UTZ Website: Vision and Mission. Available at <https://www.utzcertified.org/aboututzcertified/vision-mission>.

⁴¹¹ UTZ Core Code of Conduct for Individual and Multi-site Certification, Control Point I.D. 112-113. 2014.

⁴¹² Id., Control Point I.D.114.

⁴¹³ Id., Control Point I.D.115.

⁴¹⁴ Id., Control Point I.D.116.

⁴¹⁵ Id., Control Point I.D.117.

⁴¹⁶ UTZ Code of Conduct Cocoa Module. 2014.

⁴¹⁷ UTZ Code of Conduct Coffee Module. 2014.

⁴¹⁸ UTZ Code of Conduct Rooibos Module. 2014.

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Guidance documents:

- Implementation Guide provides additional explanation of how to comply with specific control points.⁴¹⁹

Level of ambition: There are two types of control points for UTZ certification, mandatory and additional. From year 1 to year 4 the number of mandatory control points increases for individual certification (77, 97, 107, and 111). Out of 25 environmental individual certification requirements (not including the environmental requirements for product-specific modules) the number of mandatory control points increases from 13 in year one (52%) to 16 in year two (64%), 20 in year three (80%), and 23 in year four (92%). At least 3 additional control points must also be complied with each year across all additional control points (i.e. not within the Environmental requirements only). Producers are free to choose which additional control points to comply with.

Definitions

Deforestation: direct human-induced conversion of forested land to non-forested land.⁴²⁰

Degradation: significant direct or indirect disturbance of a natural ecosystem caused by human activity, such as the establishment of crops and the extraction of forest products for construction, energy, food or other purposes. Degradation includes the reduction in the density, structure, species, composition, or productivity of vegetation cover of a natural ecosystem.

Forest: land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10%, or trees able to reach those thresholds in situ. It does not include land predominantly under agricultural or urban land use.

Natural Forest: forest that has not been planted, and is primarily composed of indigenous trees.

Primary Forest: forest that has never been logged or cut and has developed following natural disturbances and under natural processes, regardless of its age.

Protected Area: clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means to achieve long term conservation of nature with associated ecosystem services and cultural values (e.g., national parks, wilderness areas, community conserved areas, and nature reserves).

Threatened or endangered species: species of flora or fauna indicated as threatened or endangered in national laws or classification systems and/or the IUCN Red List of Threatened Species, as well as any species included in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Timelines

Cut-off date: 2008⁴²¹

Implementation period: 1 year certificates, 4 year implementation period for continuous improvement

Geographic Area

Each certificate holder must create and maintain an up-to-date overview map of the production area(s), including: crop areas with newly planted areas and nurseries; protected areas; water bodies; human settlements; and the GPS coordinates of the administrative location or center of the production area. The area of the certified crop must be defined from year 3 onwards, and is determined using GPS mapping, land titles, tree counting and density, or other credible method. It is required that certification bodies map the GPS coordinates for certified producers during audits.⁴²²

Baselines

Each certificate holder must create and maintain an up-to-date overview map of the production area(s), including: crop areas with newly planted areas and nurseries; protected areas; water bodies; human settlements; and the GPS coordinates of the administrative location or center of the production area.

Risk assessments are done from year 2 onwards of the certification to identify possible risks in producing and process related to the four blocks of the Core Code of Conduct. With these assessments, a three-year farm management plan is developed including actions to address all relevant issues. This plan is monitored and updated annually.

Area management plans must be approved by a relevant national or regional authority and include at least:⁴²³

- Identification of boundaries of areas accessible for production and processing, and a ban on further conversion and new land clearing outside of this area,
- Specific actions to mitigation or compensate for impacts on the environment, e.g., reforestation, adoption of agroforestry practices, establishment of biological corridors, **and**
- Clearly defined roles for supervision and implementation of the plan, and time frames.

UTZ does not currently have a baseline or reference level, but has recently commissioned independent impact (baseline) studies on cocoa in Ghana and Ivory Coast, tea in Malawi and Kenya, and coffee in Vietnam.⁴²⁴

Guidance documents:

- Mapping GPS Locations of UTZ Certified Producer Organizations and Estates During Audits gives certification bodies explicit instructions on how to gather accurate GPS coordinates of certificate holders.⁴²⁵

MMRV

Monitoring

- Tree counting and density (or other credible method) to identify area of certified crop (year 3 onward)
- Area management plans must include at least:

⁴¹⁹ UTZ Core Code of Conduct for Individual and Multi-cite Certification, 2014.

⁴²⁰ UTZ Core Code of Conduct for Individual and Multi-cite Certification, 2014.

⁴²¹ UTZ Core Code of Conduct for Individual and Multi-cite Certification, Control Point I.D. 112. 2014.

⁴²² Mapping GPS Locations of UTZ Certified Producer Organizations and Estates During Audits, 2014.

⁴²³ UTZ Core Code of Conduct for Individual and Multi-cite Certification, Control Point I.D.114. 2014.

⁴²⁴ UTZ Website: Monitoring and Evaluation. Available at <https://www.utzcertified.org/en/aboututzcertified/standardcertificationmonitoring?article&id=2007>.

⁴²⁵ Mapping GPS Locations of UTZ Certified Producer Organizations and Estates During Audits, 2014.

- o Identification of boundaries of areas accessible for production and processing, and a ban on further conversion and new land clearing outside of this area
- o Specific actions to mitigate or compensate for impacts on the environment, such as reforestation, adoption of agroforestry practices, establishment of biological corridors
- o Clearly defined roles for supervision and implementation of the plan, and time frames
- The certificate holder must undertake at least one self-inspection per year against the UTZ Core Code of Conduct using the UTZ Core Code checklist

Measurement

No information

Reporting

UTZ Certification Bodies must report the results of audits and annual reports to UTZ. Certified on the number of audits performed, unannounced interim audits and the results of audits.⁴²⁶ The certification body also provides an overview of the auditors. However, reporting is only done through the UTZ Certified Good Inside Portal which is accessible to UTZ, the certification body, and the member. Information is not publicly available.

Verification

An annual audit must be done by the certification body.⁴²⁷ Unannounced interim audits may be conducted at the discretion of the certification body.⁴²⁸ Every certification body is required to conduct unannounced interim audits on at least 10% of the certificate holders (for each certification body, not each local office).

In the case of individual certification, the auditor will audit the individual farm. If the farm has several plots, the minimum number of plots to be audited will be based on the square root of the number of plots belonging to the farm. In the case of a multi-site certification, the auditor will annually audit each of the sites/units which are applying for certification, and clearly specify on the certificate which sites/units are included in the certification.

In case of group certification, the auditor audits the square root of the number of members/producers belonging to the group with a minimum of 5 members. In the case of a multi-group certification, the minimum number of farms to be audited by the certification body will be based on the square root of the number of producers belonging to the whole group.

Guidance documents:

- Core Code and Module checklists summarize lists of all the control points and questions included for monitoring and evaluating purposes, with an additional column for comments. These can be used for self-inspection and for external audits.

Chain of Custody

CoC certification is required for all supply chain actors who: obtain ownership of UTZ certified coffee and physically handle the UTZ certified coffee and make product claims about UTZ certified coffee; or physically handle the coffee from cherry to green coffee (also as subcontractor).⁴²⁹

CoC certification includes requirements for the control system to ensure traceability, identification of certified inputs and certified outputs with verification documents and specific volumes, proof of payment to make claims of certified products, accessible records for at least 2 years, and the prevention of mould formation during storage and transportation.

The mass balance traceability program level of chain of custody certification allows a portion of outputs of a certificate holder to be sold with UTZ Certified MB claim.⁴³⁰

Subsidiary relationships

Multi-site Certification is possible for several producers working under one central management, who is the certificate holder.⁴³¹ Central management is responsible for the compliance of producers, all of which need to comply with the applicable control points. The certification body annually audits all sites and clearly specifies on the certificate the names of the farms which are included in the certificate.

Noncompliance

There are both major and minor noncompliances.⁴³² If major noncompliances are not addressed that are directly related to the first year's harvest, the harvest will not be certified. If a certificate holder refuses an annual audit or a recertification audit, the certification body will cancel the contract and the certification. The time period for addressing noncompliances is agreed upon between the certification body and certificate holder, but the recommended period for resolving them is up to 12 weeks (60 working days).

Certificate holders must report in advance of an annual audit any noncompliance with a mandatory control point. If the certification body discovers such a noncompliance that the certificate holder did not report, it must issue a written warning within 6 weeks so that the holder can correct it in a maximum of 12 weeks. If corrective action is not taken, the certification body must immediately suspend the certificate holder for 3 months (longer if there are several noncompliances). Before the suspension period is up, the certification body must re-audit the holder to verify compliance with specific control points. If noncompliance is still detected, the certificate holder is withdrawn and the certificate cannot be used. The certificate holder may not re-apply for certification for one harvest (or for one year in the case of continuous harvest).

⁴²⁶ UTZ Certified Certification Protocol. 2012.

⁴²⁷ UTZ Core Code of Conduct for Individual and Multi-site Certification, 2014.

⁴²⁸ UTZ Certified Certification Protocol. 2012.

⁴²⁹ <http://www.utzcertified-trainingcenter.com/ewExternalFiles/EN%20UTZ%20Chain%20of%20Custody%20Coffee%20v5%2000%20May%202013.pdf>

⁴³⁰ UTZ Certified Chain of Custody for Cocoa, 2012.

⁴³¹ UTZ Certified Certification Protocol, 2012.

⁴³² UTZ Certified Certification Protocol, 2012.

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ANNEX II: Company-based VSIs

2.1 Asia Pacific Resources International Holdings Ltd (APRIL) Sustainable Forest Management Policy

Overview: On January 28, 2014, APRIL committed to a Sustainable Forest Management Policy (SFMP) which commits the company to a moratorium on plantation development anywhere that HCVF assessments have not been completed, an end to the establishment of new plantations by December 2014, a mill wood supply that is entirely taken from plantations by 2019, doubling the size of its forest restoration program to 40,000 hectares, strive to support conservation areas equal in size to APRIL's plantation areas, and an independent Stakeholder Advisory Committee to oversee implementation of APRIL's SFMP.⁴³³

Objective: APRIL's SFMP is an evolution of its High Conservation Value commitment established in 2005, and aims to take APRIL to the next level in balancing the imperatives of safeguarding the environment and looking after the interests of local people while continuing to run a sustainable business.⁴³⁴ The SFMP commitments apply exclusively to APRIL and cover all fiber suppliers to APRIL's mill in Kerinci as well as to any future mills acquired by APRIL. APRIL will engage with sister pulp and paper companies within Royal Golden Eagle (RGE) Group to adopt the principles and underlying APRIL's SFMP.

Commodity: Wood and fiber for pulp

Registry: <http://silk.dephut.go.id/index.php/info/iuiphhk>

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity Fiber suppliers, mills

Environmental Targets Long Term Sustainability

- April sources fiber from non-HCVF areas that have been identified through independent HCV assessment, based on Indonesian HCV toolkit and peer-reviewed by HCV Resource Network.
- From 28 January 2014, APRIL declares a moratorium in concession areas throughout APRIL's fiber supply chain where HCV assessments have not been completed.
- APRIL and its Long-Term Supply Partners will complete their plantation establishments by the end of 2014.
- APRIL will use only plantation fiber by the end of 2019. APRIL commits to annual reviews of its fiber supply, with the intent of accelerating plantation fiber self-sufficiency.
- APRIL will not establish a new pulp mill and/or a new pulp line until it achieves plantation fiber self-sufficiency for its long term sustainability.
- APRIL has a robust Chain of Custody tracking system and mill wood sourcing monitoring system to ensure all fiber come from

⁴³³ APRIL (2015). <http://aprildialog.com/category/sustainable-forest-management-policy-sfmp/>

⁴³⁴ APRIL's Sustainable Forest Management Policy (2014). Available at <http://www.aprilasia.com/images/sustainability/policy/sfm-policy.pdf>

- non-HCVF areas.
- APRIL will update its Procurement Policy and renegotiate contracts with its fiber suppliers to ensure its fiber procurement is in full compliance with APRIL's SFMP.

Forest Protection and Conservation

- APRIL reaffirms its commitment to HCV assessments since 2005.
- APRIL and its Long-Term Supply Partners protect and manage more than 250,000 hectares of conservation zones identified through HCV assessments.
- APRIL has committed to restore 20,000 hectares of degraded peatland within the core zone of Kampar Peninsula through the Restorasi Ekosistem Riau (RER) initiative in Riau province.
- APRIL will initiate a new ecosystem restoration project to restore an additional 20,000 hectares of degraded peatland at the core zone of Pulau Padang.
- APRIL will support biodiversity and carbon conservation initiatives with a focus on landscape basis. APRIL will strive to support conservation areas equal in size to its plantation areas.
- APRIL will participate in the development of an industry-accepted methodology of HCS by initiating a pilot study within its concession area.
- APRIL will adopt for new concession areas the best practices in the industry pertaining to HCS if and when relevant standards are established.

Peatland Management

- APRIL and its fiber suppliers protect and manage forested peatland areas identified as HCVF and HCS.
- APRIL declares a moratorium on forested peatland areas, including canals and other infrastructure activities, until independent HCV assessments have been completed, and HCS assessments will be conducted if and when relevant standards are established.
- APRIL engages with peat experts to implement best practice management to reduce and avoid GHG emission within the peatland landscape.

Definitions

HCV/HCVF: High Conservation Value Forest. Forests having outstanding and critical importance due to their environmental, socio-economic, biodiversity, or landscape values. Must have "been identified through independent HCV assessments, based on Indonesian HCV toolkit and peer-reviewed by HCV Resource Network."⁴³⁵

High Carbon Stock (HCS): Forests with exceptionally high levels of stored carbon.

Peatlands: Also known as "wetlands," peatlands are ecosystems based on peat soils. These vary widely due to regional and local differences in soils, topography, climate, hydrology, water chemistry, vegetation, and other factors, including human disturbance. Peatlands are found from the tundra to the tropics and on every continent except Antarctica.

Timelines

January 28, 2014: no harvesting from HCV forests

December 2014: all permanent plantations must be established

December 2019: 100% of wood and fiber must be sourced from plantations⁴³⁶

Geographic Area

Maps of supplier location, size in hectares, and land license information for APP pulpwood suppliers is provided on APP's www.fcpmonitoring.com website.⁴³⁷

Baselines

Before a plantation concession license is awarded, APRIL's land development specialists conduct preliminary evaluations of available concessions, assessing soil and land types for potential fiber plantation growth rates, access and wood transport distances, the quality of existing vegetation and identification of any social issues. A land-use planning process is then done to ensure and incorporate compliance with legal requirements, science-based practices and voluntary commitments. A macro-delineation occurs using available vegetation and environmental data to broadly identify appropriate land use allocations within the concession. Subsequently, a micro-delineation occurs by an expert third party to differentiate areas to be maintained as natural forest and those areas suitable for development into fiber plantations. This is done in accordance with Indonesia's legal requirements for land-use plan development.

HCV assessments based on the Toolkit for Identification of High Conservation Values in Indonesia (2008) identify and delineate exceptionally important biodiversity values, ecosystem elements and social or cultural values and recommend management and monitoring activities to maintain and enhance these values.

A Carbon emissions baseline will be established for all APRIL concessions starting at the time that APRIL assumed control ("Take Over Point").

APRIL has committed to participating in the development of an industry-accepted methodology of High Carbon Stock (HCS), by initiating a pilot study within its concession area.⁴³⁸

MMRV

Monitoring

⁴³⁵ Id. Principle I. a

⁴³⁶ Id.

⁴³⁷ Information from Aniela Maria at APP.

⁴³⁸ APRIL's Sustainable Forest Management Policy, Principle II. 2014.

APRIL's sustainability management is divided between forestry plantations and the Kerinci mill complex. Environment departments are in place for the mill and fiber segments, and documented environmental procedures exist for both groups of operations.

APRIL monitors GHG emissions of mill operations and concessions, including those located on peatland. It establishes a carbon emissions total from current operations and activities combined, including all land APRIL is responsible for.

APRIL's forest protection officers and security teams conduct ground and aerial patrols to identify and respond to threats to native wildlife. Since 2009, APRIL has worked with independent MRV team approved by Indonesian government to monitor APRIL operations on the Kampar Peninsula to cover biomass, social, carbon, forest cover, and other environmental data.⁴³⁹

When such industry-wide best practices for HCS are established, APRIL will adopt them for new concession areas.

Measurement

APRIL determines its carbon footprint (the difference between current total emissions and baselines emissions before taking over those land areas). Carbon emissions are also to be calculated for all of APRIL's operations in collaboration with IVL Swedish Environmental Research Institute in order to determine net carbon emissions from 2006 on.⁴⁴⁰

APRIL hired IVL Swedish Environmental Research Institute to conduct a full product life cycle analysis for the period 2006-2009. The analysis covered plantations and forestry, production of other raw materials, pulp and paper production, transport and waste management. The methodology employed for the study was the Framework for Development of Carbon Footprint by the Confederation of European Paper Industries (CEPI). The method used to generate reference scenarios was based on the IPCC "Good Practice Guidance and Uncertainty managements in National Greenhouse Gas Inventories, guidance for land use, land-use change and forestry, default method."

Reporting

Reports required under Indonesian law for environmental monitoring are submitted at six month intervals. APRIL publishes independently-verified Sustainability Reports biennially which are based on Global Reporting Initiative (GRI) standards and are available on the company's website. In general the reporting period is 2 years, but in certain cases data sets have been extended to 5 years (e.g., the report for the 2008-2012 period). Public reporting addresses land areas directly linked to APRIL Indonesia value chains and does not disclose data pertaining to its supply partners who supply wood fiber under long-term supply arrangements.

Verification

Annual surveillance audits are completed for these ISO9001, ISO14001, and OHSAS18001 standards. Internal audits for plantations and mills are based on an internal audit schedule, in addition to chain of custody audits that are completed for the wood supplied to the mill.

APRIL has a Stakeholder Advisory Committee (SAC) which ensures transparency and implementation of the SFMP. The SAC appoints an independent verification auditor and oversees monitoring and verification of the implementation of the SFMP.

APRIL audits its own concessions to ensure actual conservation areas correspond with areas identified as conservation in land management plans and where any discrepancies are found, an investigation takes place and rectification actions are undertaken. Third-party reviews have been undertaken by assessors and verifiers under the various certification schemes APRIL participates in. Independent monitoring, including by Government-appointed MRV teams, have verified APRIL's adherence to land-use plans and confirmed that designated conservation areas are well protected.

Chain of Custody	APRIL has a Chain of Custody tracking system and mill wood sourcing monitoring system to ensure all fiber come from non-HCVF areas. APRIL will also update its Procurement Policy and renegotiate contracts with its fiber suppliers to ensure its fiber procurement is in full compliance with APRIL's SFMP.
Subsidiary relationships	APRIL's sustainable forest management policy covers all fiber suppliers to APRIL's mill in Kerinci as well as to any future mills acquired by APRIL. APRIL will engage with sister pulp and paper companies within Royal Golden Eagle (RGE) Group to adopt the principles underlying APRIL's SFMP.
Noncompliance	No information

2.2 Asia Pulp and Paper (APP)

Overview: In 2012, Asia Pulp and Paper (APP) released its Roadmap Vision 2020, setting out its long-term sustainability plan. This was updated in 2013 to include the company's new Forest Conservation Policy (FCP) which introduced an immediate halt to all natural forest clearance by suppliers as well as new social commitments including the implementation of Free Prior and Informed Consent (FPIC) on all new developments.

⁴³⁹ APRIL (2012). Sustainability Report. Sec. 4.9. Monitoring, Reporting, and Verification. <http://www.aprilasia.com/sr/sustainability-report-2012/4-0-plantations/4-9-monitoring,-reporting-and-verification.html>

⁴⁴⁰ APRIL (2012). Sustainability Report. Sec. 3.8. Carbon. <http://www.aprilasia.com/sr/sustainability-report-2012/3-0-kerinci-mill/3-8-carbon.html>

Objective: APP's Forest Conservation Policy has four main commitments. These include a ban on forest clearing or plantation development in natural forest, as defined by High Conservation Value (HCV) and High Carbon Stock (HCS) assessments; a commitment to protecting forested peatlands to reduce GHG emissions; improved consultation with stakeholders and respecting of rights as part of implementation; and expanding of sustainability policies around the world. Related to the FCP are a number of commitments within the Vision 2020, which include: a pledge to eliminate natural forest-derived products from their entire supply chain by 2020. Through the FCP, this commitment was brought forward by seven years. APP ended sourcing from natural forest since February 2013.

Commodity: Pulpwood and wood fiber

Registry: APP Sustainability Dashboard at www.fcmonitoring.com (requires username and password available upon request).

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity	Suppliers
Environmental Targets	<p>From February 1, 2013 all natural forest clearance is suspended while HCV and HCS assessments are completed. No further clearance of areas identified as forest can take place. APP and its suppliers will only develop areas that are not forests, as identified through independent HCV and HCS assessments.</p> <p>APP will support the Government of Indonesia's low emission development goal and its target to reduce GHG emissions by:</p> <ul style="list-style-type: none"> • Ensuring that forested peatland is protected as part of its commitment to maintain HCV and HCS forests • Best practice management to reduce and avoid GHG emissions within the peatland landscape. <p>No further canal or other infrastructure activities will take place within undeveloped suppliers' concessions on non-forested peatland until independent HCV assessments including input from peat experts have been completed.</p> <p>APP is developing measures to ensure that sourcing supports responsible forest management.</p>
Definitions	<p>High Conservation Value Forests (HCV Or HC VF): Follows Definition Of The HCV Network.⁴⁴¹</p> <p>High Carbon Stock (HCS): within the category referred to as old scrub/regenerating forest (BT).</p>
Timelines	<p>February 1, 2013: moratorium on any natural forest clearing to supply mills</p> <p>August 31, 2013: deadline for any wood felled prior to February 1, 2013 to be delivered to pulp mills.⁴⁴²</p> <p>February 2015: HCV assessment completed on all concessions</p> <p>January 1, 2020: eliminate all natural forest derived products in the supply chain</p>
Geographic Area	Peat dome mapping to map peatland landscape within which APP suppliers' concessions are located, from 2015 to 2017.
Baselines	<p>Satellite analysis, backed up by field work, will identify areas that will be protected as well as low carbon areas that can be developed as plantations. The HCS approach distinguishes natural forest from degraded lands with only small trees, scrub or grass remaining. It separates vegetation into 6 different classes (stratification) through the combination of analyzing satellite images and field plots. APP's threshold for HCS is defined, following field analysis, within the category referred to as old scrub.</p> <p>Mapping and assessment of peatland cover trends and fire threats will be done, as well as peat dome mapping to remap peatland landscape within which APP suppliers' concessions are located, from 2015 to 2017. This will include an assessment of peat thickness and type and peat dome delineation.</p>
MMRV	<p>Monitoring</p> <p>The APP Independent Observer program (IO) was established in 2013 to facilitate independent monitoring of FCP implementation. The program allows stakeholders/NGOs to participate in on-the-ground monitoring, either through flyovers or field trips. The results are reported via TFT progress reports and APP's Sustainability Roadmap updates.⁴⁴³</p> <p>Implementation of Integrated Sustainable Forest Management Plans (ISFMPs) will take into account the management of priority landscapes rather than just areas within APP's concession boundaries. ISFMPs will utilize the inputs of HCV, HCS, peatlands, social management, and growth & yield in order to create and enforce management plans for APP's suppliers.</p>

⁴⁴¹ HCV Resource Network website. Accessed 24 October 2014. <https://www.hcvnetwork.org/about-hcvf>

⁴⁴² Asia Pulp and Paper. 04 June 2013. Asia Pulp and Paper's No Deforestation policy continues as it issues its third Sustainability Roadmap 'Vision 2020' update. <http://www.asiapulppaper.com/news-media/press-releases/asia-pulp-and-papers-no-deforestation-policy-continues-it-issues-its-third>

⁴⁴³ APP Sustainability Report 2013.

Following mapping and assessment of peatland cover (see Baselines section), APP will develop management recommendations for monitoring peatlands in supplier concession areas.⁴⁴⁴

Measurement

No information

Reporting

Sustainability roadmap progress reports and implementation plans include information on actions that APP has taken in furtherance of its goals, identified challenges, and future actions to be taken.

Verification

Third-party assessments and transparency being facilitated by TFT and other NGO partners. APP welcomes third-party observers to verify the implementation of its commitments.

Chain of Custody	APP has conducted an initial assessment of its entire supply chain. It has prioritized HCV and HCS assessments in those concessions that up to now have been supplying the company with natural forest fiber. HCV and HCS areas will be protected. APP sources fiber globally and is developing measures to ensure that sourcing supports responsible forest management.
Subsidiary relationships	The policy applies to APP and all its suppliers in Indonesia, any Indonesian fiber utilized by APP's mill elsewhere (including China), all future expansion.
Noncompliance	APP will withdraw from all purchase and other agreements with any supplier who is found not to be in compliance with these commitments.

2.3 Cargill

Overview: Cargill is one of the largest agribusiness companies in the world and a major supplier of palm oil on the global market, with around 10% global market share. In August 2014, they adopted a zero-deforestation policy for their palm oil production, as well as a policy to reduce emissions from deforestation across all the supply chain commodities.⁴⁴⁵ These announcements were made at the September 2014 New York Declaration on Forests.⁴⁴⁶

Objective: Cargill's aim is to build a traceable palm oil supply chain without deforestation or development on deep peat lands, with a commitment to having a major proportion of palm oil supplies (those exported to Europe, United States, Canada, Australia, and New Zealand) sourced from smallholder growers by 2015, and to achieve 100 percent of all palm oil products RSPO certified by 2020. Commitments on deforestation in other commodities are still undefined.

Commodity: Oil palm and other agricultural commodities including cotton, soy, beef, and cocoa.⁴⁴⁷

Applicability: All producers and subsidiaries of Cargill around the world; with palm oil, this includes primarily producers in Malaysia and Indonesia.

Registry: No information

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity

Environmental Targets

Cargill endorse the Roundtable on Sustainable Palm Oil (RSPO) as the primary global sustainability standard for palm oil products and support the efforts of the RSPO to develop mechanisms to distinguish sustainable palm oil products.⁴⁴⁸

Cargill will build a traceable and transparent palm oil supply chain firmly committed to:

⁴⁴⁴ APP (2014) FCP Implementation Plan: 2015 and Beyond.

⁴⁴⁵ United Nations (2014). FORESTS: New York Declaration on Forests Actions Statements and Action Plans.

⁴⁴⁶ Cargill (2014). Cargill pledges to protect forests in all agricultural supply chains: Company endorses U.N. declaration on deforestation. <http://www.cargill.com/news/releases/NA31693655.jsp>.

⁴⁴⁷ <http://news.mongabay.com/2014/0409-cargill-zero-deforestation-commitment.html>

⁴⁴⁸ Cargill (2014). Cargill Policy on Sustainable Palm Oil.

- No deforestation of HCV lands or HCS areas
- No development on peat
- No exploitation of rights of indigenous peoples and local communities

Cargill will work to ensure that all palm oil and palm products that Cargill produces, trades or processes are in line with these commitments.

No deforestation:

- Commits to no deforestation by utilizing a HCS study to determine eligible planting areas as a part of new palm developments
- Supports and actively engages with stakeholders who are working to advance the science in this area.
- Until the HCS approach is finalized, HCS forests will be protected
- Supports a robust, scientifically-sound, socially, politically and economically acceptable approach to identifying and protecting HCS forests
- As a member of RSPO, commits to preserve HCV land under RSPO Principles and Criteria 5.2 and 7.3
- Maintains long-standing no-burn policy, which is also an RSPO commitment 5.5

No peat:

- Commits to protecting peat defined as soil containing greater than 65% organic matter, regardless of depth
- Commits to supporting RSPO 4.3 and the standards set out in RSPO Manual on Best Management Practices for existing plantations on peat lands
- Will work with experts to explore options of peat definition, restoration or alternative uses in areas unsuitable for replanting

Definitions	<p>High Carbon Stock (HCS) forest: includes the vegetation classes of YRF/BT and above (High Density Forest, Medium Density Forest, Low Density Forest). YRF/BT is 'Mostly young re-growth forest, but with occasional patches of older forest within the stratum'.⁴⁴⁹</p> <p>Peatland: soil containing greater than 65% organic matter, regardless of depth.</p> <p>High Conservation Value Forests (HCV or HCVF): follows definition of the HCV Network (through RSPO commitments).⁴⁵⁰</p>
Timelines	Implementation period: by 2015 for markets in Europe, United States, Canada, Australia and New Zealand (RSPO certified) and by 2020 for all palm oil production worldwide. ⁴⁵¹
Geographic Area	Aerial photography to identify HCV/HCS areas.
Baselines	<p>HCV/HCS assessments</p> <ul style="list-style-type: none"> • Use of aerial photography to identify HCV/HCS areas <p>Guidance documents:</p> <ul style="list-style-type: none"> • The HCS Approach: No Deforestation in practice by Greenpeace.⁴⁵²
MMRV	<p>Monitoring</p> <ul style="list-style-type: none"> • Conduct field assessments to identify best practices as well as areas that require improvement • Monitor implementation of the action plans generated through due diligence procedures and field assessments of suppliers • Pilot the use of unmanned aerial vehicles to identify and monitor land use in Indonesia • Indicators for monitoring and enforcement include: <ul style="list-style-type: none"> ○ Number of field assessments carried out and summary report of results published ○ Number of suppliers on track with action plan commitments • Help three supply chain partners carry out HCS studies, in partnership with Proforest <p>Measurement</p> <p>Report on GHG emissions using the RSPO PalmGHG Calculator at own plantations and review suppliers' calculations through the RSPO Annual Communication on Progress</p> <p>Reporting</p> <ul style="list-style-type: none"> • Will publish annual time-bound implementation plans (beginning December 2014) • Will file semi-annual progress reports on implementation efforts to meet these policies (beginning September 2014) • Will file Annual Communications of Progress (ACOP) reports with RSPO • Publish an annual review of own action plan, a summary report of supplier action plans and semi-annual progress reports on policy implementation <p>Verification</p> <p>Analyse the implementation process and engage in a constant review and improvement process. Will review own internal procedures and policies to ensure alignment with palm policy.</p>
Chain of Custody	In August 2014, Cargill became a member of The Forest Trust (TFT) which helped map the full palm oil supply chain for Malaysian refineries to the individual mill. Cargill can trace palm oil from its refineries and is continuing its efforts to map third-party suppliers in Indonesia and Malaysia.

⁴⁴⁹ Cargill (2014). Cargill Policy on Sustainable Palm Oil.

⁴⁵⁰ RSPO Definitions.

⁴⁵¹ Cargill: Responsible Supply Chains. Available at <http://www.cargill.com/corporate-responsibility/responsible-supply-chains/palm-oil/index.jsp>.

⁴⁵² Greenpeace (2014) The HCS Approach: No Deforestation in practice Identifying High Carbon Stock (HCS) Forest for Protection. http://www.greenpeace.org/international/Global/international/briefings/forests/2014/HCS%20Approach_Breifer_March2014.pdf

Cargill will:

- Launch a process to work with non-compliant suppliers before removing them from the supply chain
- Develop criteria to determine when non-compliant suppliers are removed

Subsidiary relationships	No information
Noncompliance	In partnership with stakeholders, Cargill will develop a transparent grievance process that allows issues in the supply chain to be raised and addressed. Will contact a third-party mediator and verification service provider for independent collaboration with social NGOs and other key industry stakeholders.

2.4 Consumer Goods Forum (CGF)

Overview: The Consumer Goods Forum (CGF) is a global, parity-based industry network, driven by its members. It brings together the CEOs and senior management of over 400 retailers, manufacturers, service providers and other stakeholders across 70 countries and reflects the diversity of the industry in geography, size, product category and format. Forum member companies have combined sales of EUR 2.5 trillion. Their retailer and manufacturer members directly employ nearly 10 million people with a further 90 million related jobs estimated along the value chain.⁴⁵³

Objective: The CGF's 2014 Board Resolution on Deforestation pledged to "mobilize resources within our respective businesses to help achieve zero net deforestation by 2020". Actions are to be taken by individual company initiatives as well as in partnership with governments and NGOs. The resolution intends to develop time-bound action plans for the primary commodities that lead to deforestation.⁴⁵⁴

Applicability: The resolution applies to all 400 CGF member companies, which include major buyers of commodities who produce consumer goods. As of September 2014, there are 21 companies who have adopted zero deforestation policies, with a focus on palm oil, but with actions on other commodities as well.⁴⁵⁵

Commodity: palm oil, soya, beef, wood, paper, and pulp.

Registry for members to evaluate forest-sourcing risk: <http://www.globalforestregistry.org>

Registries of members: http://www.theconsumergoodsforum.com/membership_search.aspx and <http://sustainability.mycgforum.com>.

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity

Environmental Targets

Achieve zero net deforestation among companies within the Consumer Goods Forum by 2020, with a focus on the major commodities, which include palm oil, soya, beef, wood, and pulp and paper.⁴⁵⁶ The CGF recommends its members to source sustainable palm oil certified by RSPO or an equivalent standard, be RTRS certified or an equivalent standard.

Pulp, paper and packaging sourcing guidelines:

- Wood fiber optimization
 - Efficient use: use of forest materials should be optimized while also meeting safety, regulatory, performance and cost requirements
 - Recycled content: use of recycled forest materials should be optimized while also meeting safety regulatory, performance and cost requirements
 - Alternative fibers: use of alternative fibers should consider the full life cycle impacts, food security impacts and impacts

⁴⁵³ CGF Website. Accessed 3/2013: <http://www.theconsumergoodsforum.com/about.aspx>

⁴⁵⁴ Consumer Goods Forum (2014). Board Resolution on Deforestation. <http://www.theconsumergoodsforum.com/strategic-focus/sustainability/board-resolution-on-deforestation>

⁴⁵⁵ United Nations (2014). FORESTS: New York Declaration on Forests Actions Statements and Action Plans.

⁴⁵⁶ CGF Website. Accessed 3/2013 http://sustainability.mycgforum.com/images/sustainability-pic/board_resolutions_on_deforestation_and_refrigeration.pdf

- to biodiversity to avoid unintended environmental and social impacts
- Virgin wood fiber sourcing
 - Known & compliant sources: sources of virgin wood fiber should be known, free of corruption and compliant with applicable legal requirements
 - Controversial sources: risk assessments should be done to assure low risk of controversial sources contributing to deforestation in the supply chain. When identified, measures should be taken to work with suppliers to eliminate controversial sources of virgin fiber. Controversial sources may include:
 - Illegally harvested wood
 - Wood harvested in violation of traditional or civil rights
 - Wood harvested from forests in which high environmental, ecosystem, and cultural values are threatened by management activities
 - Wood harvested from forests containing protected and endangered species, including requirements of CITES, where applicable
 - Wood harvested from areas where significant conversion of forests and other wooded ecosystems to plantations or to non-forest areas took place after December 31, 2010
 - Verification: supply from suppliers & sources in high priority countries should be independently verified for low risk of controversial sources contributing to deforestation
- High priority country list
 - Countries where supply should be verified for low risk of controversial sources contributing to deforestation:
 - Indonesia (fiber source)
 - Malaysia (wood chips source)
 - China (fiber source and trader)
 - Thailand (fiber source)
 - Colombia (fiber source)
 - Countries where practices should be monitored for potential deforestation due to pulp, paper and packaging demand:
 - Myanmar
 - Vietnam
 - PNG
 - Cambodia
 - DRC, Cameroon, Ghana
 - Countries will be reviewed periodically by the working group and updated as needed. Considerations for selecting high priority countries include:
 - Presence of tropical forests
 - Risk of deforestation due to wood fiber for pulp, paper or packaging
 - Publicly available information such as the EU Commission Working Document: Addressing the challenges of deforestation and forest degradation to tackle climate change and biodiversity loss – Impact Assessment (2008)
 - Input from NGOs
 - Input from suppliers

The Forum pledges to achieve zero net deforestation by prohibiting production on land with HCV and HCS with a conversion cut-off date not later than 2009.⁴⁵⁷

Guidance documents:

- Sustainability Activation Toolkit⁴⁵⁸

Definitions

Deforestation: the clearance of forests by logging and burning that results in the conversion of forested lands for non-forest uses.⁴⁵⁹ CGF follows the WWF definition of zero net deforestation.⁴⁶⁰

- "Zero Net Deforestation" can be distinguished from "zero deforestation" which means no deforestation anywhere
- Zero Net Deforestation acknowledges that some forest loss could be offset by forest restoration. Zero net deforestation is not synonymous with a total prohibition on forest clearing. Rather, it leaves room for change in the configuration of the land-use mosaic, provided the net quantity, quality and carbon density of forests is maintained. It recognizes that, in some circumstances, conversion of forests in one site may contribute to the sustainable development and conservation of the wider landscape (e.g., reducing livestock grazing in a protected area may require conversion of forest areas in the buffer zone to provide farm land to local communities).
- However, zero net deforestation is not achieved through the conversion of primary or natural forests into fast growing plantations. Such conversion would count as deforestation in assessing progress against the target.

High Conservation Value: HCV Network definition

High Carbon Stock: Greenpeace and TFT definition

Sustainable Forestry: the use of forests and forest lands that maintains a balance between society's demand for forest products and benefits, while preserving forest diversity, extent and integrity for future generations.⁴⁶¹

⁴⁵⁷ Consumer Goods Forum Sustainable Soy Sourcing Guidelines (2014).

⁴⁵⁸ Consumer Goods Forum: Publications. Accessed April 2015.

⁴⁵⁹ Consumer Goods Forum (2014) Consumer Communications Glossary.

⁴⁶⁰ Consumer Goods Forum (2014) Sustainable Soy Sourcing Guidelines.

⁴⁶¹ Id.

Timelines	<p>Cut-off date: 2009</p> <p>Implementation period: zero net deforestation by 2020; companies should have timelines to be 100% certified (palm oil, soy, fiber)</p>
Geographic Area	No information
Baselines	<p>Palm oil companies should determine how much palm oil, soy and fiber they currently use and where it is coming from.</p> <p>Guidance documents:</p> <ul style="list-style-type: none"> The Project GHG Accounting and Reporting Module
MMRV	<p><u>Monitoring</u></p> <p>The CGF working group will facilitate the sharing of tools to assist companies with conducting risk assessments of their pulp, paper and packing supply chains, as well as materiality assessments to determine the appropriate scope of individual company soy sourcing policies.⁴⁶²</p> <p>Individual companies conduct a materiality assessment to determine the appropriate scope of the soy sourcing policy and develop soy sourcing policies that seek transparency along the supply chain and support the production of deforestation-free soy.</p> <p>Considerations for selecting HCV areas or high priority regions include:</p> <ul style="list-style-type: none"> Presence of tropical forests or HCVs Risk of deforestation due to soy Input from relevant stakeholders (NGOs, producers) <p>Companies should set milestones along the way, starting with understanding how much palm oil, soy or fiber they use, and where it is coming from. Since breaking down palm oil volumes can be challenges, companies should use best estimates.</p> <p><u>Measurement</u></p> <p>Key performance indicators to help achieve zero net deforestation by 2020 by eliminating products that contribute to deforestation in supply chains include:</p> <ul style="list-style-type: none"> Number of relevant members with public commitments on the sourcing of sustainable soy and palm oil Percentage of soy directly sourced from HCVs and high carbon stock lands in South America Percentage of certified palm oil purchases (RSPO or equivalent) <p><u>Reporting</u></p> <p>It is recommended that participating CGF companies publicly disclose their pulp, paper and packaging sourcing policies, goals and goal progress. CGF companies are also encouraged to be transparent about their forest footprints through mechanisms such as the Forest Disclosure Project.</p> <p>Companies should disclose company policies, goals and progress that support deforestation-free soy in their individual supply chains. It is recommended that participating members of The Forum publicly disclose their soy sourcing policies, goals and goal progress.</p> <p>Recommended reporting:⁴⁶³</p> <ul style="list-style-type: none"> If companies are sourcing products containing palm oil, soy or fiber If they have made a public commitments (CSPO, RTRS, FSC) If they have joined an accepted standard (RSPO, RTRS, FSC) Their best estimate of volume of purchased palm oil, soy, fiber Percentage of CSPO (with a split between traceable, mass balance, book and claim), soy, fiber Total revenues <p><u>Verification</u></p> <p>Verification mechanisms that may be used to increasingly reduce the risk of controversial sources contributing to deforestation include:</p> <ul style="list-style-type: none"> Verify legality of a source (e.g., FLEGT VPA, Rainforest Alliance Verified Legal Compliance) Verify legality & low risk of controversial sources contributing to deforestation <ul style="list-style-type: none"> FSC controlled wood PEFC chain of custody due diligence and chain of custody standard endorsed by PEFC Other credible, independent mechanisms that verify there is low risk of controversial sources, as defined by the CGF sourcing guidelines, contributing to deforestation in the supply chain. Experts and key stakeholders should be engaged to assure the verification process is transparent and credible. Verify legality, low risk of controversial sources contributing to deforestation & sustainable forest management <ul style="list-style-type: none"> FSC certified product Product certified by a national forest standard endorsed by PEFC <p>The minimum recommended standard for verification of reduced risk of sourcing soy contributing to deforestation is the ISCC standard. ProTerra and RTRS may also be used.</p>
Chain of Custody	Follow chain of custody standards set by acceptable standards (e.g., RSPO, RTRS, FSC)
Subsidiary relationships	Companies should set timelines to be 100% RSPO certified

⁴⁶² Consumer Goods Forum (2013) Pulp, Paper and Packaging Guidelines; see also Consumer Goods Forum (2014) Sustainable Soy Sourcing Guidelines.

⁴⁶³ Consumer Goods Forum Sustainability Activation Toolkit.

2.5 Danone Sustainable Food Chain and Danone Forest Footprint Policy

Overview: Danone is a major producer of dairy products, cereals, water, and nutrition products, and is a purchaser of pulp/paper and palm oil products.

Objective: Danone's 2012 Forest Footprint Policy aims to eliminate deforestation impacts from the company's supply chain by 2020.⁴⁶⁴

Commodity: palm oil, paper and board, soy, cane sugar, timber for energy, bio-based plastic for packaging, covering the commodities of Danone that are associated with high deforestation risks.⁴⁶⁵

Applicability: Entire Danone supply chain

Registry: None per se, but latest reports available at <http://www.danone.com/en/publications/>

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity	All deforestation-risk commodities purchase directly (3% of total group purchase) or indirectly where Danone has no direct contact with commodity producers (97%)
Environmental Targets	<p>Danone's goal is to achieve a greater than 50% reduction in carbon emissions by 2020, and to stabilize CO2 emissions while continuing sales growth.⁴⁶⁶</p> <p>Danone's policy is built on two pillars: eliminating deforestation from its supply chain and contributing to reforestation. Countries where risk of deforestation is considered high are: Indonesia, Brazil, PR Congo, Thailand, Malaysia, Australia, Bolivia and Venezuela. Medium risk countries include: Mexico, Argentina, Ivory Coast and Ghana.</p> <p>Palm oil and paper & board sourcing strategies have been developed. Policies seek to ensure traceability of all priority risk commodities for both direct and indirect sourcing, and will target 100% sustainable sourcing when standards exist and will be endorsed by independent and competent third parties. Policies will also include reinforced plans in areas with high deforestation risk (as per FAO 2010 risk mapping). When standards do not exist, Danone will engage with external stakeholders and be transparent on selection criteria and implementation guidelines to safeguard sustainable purchasing standards.</p> <p>Danone has committed to sources traceable palm oil offering guarantees of zero deforestation and exploitation by 2020. All palm oil used by Danone must:</p> <ul style="list-style-type: none"> • Be traceable to the plantation where it was produced; • Come from plantations whose expansion does not threaten HCV forests; • Come from plantations whose expansion does not threaten HCS forests; • Come from plantations whose expansion does not threaten any tropical peatland, of whatever depth; • Come from plantations that respect indigenous peoples' and local communities' rights to give or withhold their free, prior, informed consent to operations on lands to which they hold legal, communal or customary rights; and • Come from plantations that respect the rights of all workers.⁴⁶⁷ <p>Pulp & Paper (direct supply): Danone commits to obtain 100% of its supply from sustainably managed forest sources by 2020, which a clear priority for either recycled fibers or FSC certified sources for virgin fibers.⁴⁶⁸</p>

⁴⁶⁴ Danone Forest Footprint Policy. Available at: http://www.danonewaters.com.cn/dev/static/download/danone_forest_footprint_policy_en.pdf.

⁴⁶⁵ Id.

⁴⁶⁶ Danone Sustainability Report 2013. Available at: http://www.danone.ca/sites/all/themes/danone/pdf/Danone_Sustainability_Report_2013_01.pdf.

⁴⁶⁷ Danone. Committing to Deforestation-Free Palm Oil. 2014. Available at: http://www.danonewaters.com.cn/dev/static/download/Palm_Oil_Policy_Danone.pdf.

⁴⁶⁸ Danone. Forest Footprint Policy. 2012. Available at: http://www.danone.com/uploads/tx_bidanonepublications/danone_forest_footprint_policy_en_01.pdf.

Pulp & Paper (indirect supply): management of traceability hurdles and third-party audits will be planned and put in place by suppliers to ensure compliance as from 2014

Palm oil (direct supply, no indirect supply): As a member of RSPO, Danone commits to sources 100% of its palm oil from physically segregated CSPO sources by the end of 2014.⁴⁶⁹

Through the expansion of offsetting projects, the Evian brand will achieve full emissions offsets by 2020.⁴⁷⁰

Definitions	<p>High Conservation Value (HCV) forests: areas containing resources of exceptional or vital biological, ecological, social and/or cultural importance that must be preserved, including rare and endangered species and their habitats (HCV network)</p> <p>High Carbon Stock (HCS) forests: include primary or old-growth forests; high-, medium- and low-density forests as well as regenerating forests (refers to GAR, SMART, Greenpeace and TFT HCS framework and identification tool)</p> <p>Peatlands: areas with soil that contain more than 65% organic matter (refers to RSPO Best Management Practices Manual)</p>
Timelines	<p>100% sustainably sourced palm oil and soy by 2020. Achieve greater than 50% reduction in carbon emissions by 2020.</p> <p>The transparency and assessment phase of palm oil mapping will be completed by 2015. The transformation phase will be completed gradually by 2020.</p>
Geographic Area	No information
Baselines	<p>Danone, with TFT, is producing a detailed map of all supply sources which will be completed by 2015.⁴⁷¹ All palm oil sources will be rated on the environmental and social criteria that make up the definition of responsibly produced palm oil (as listed in targets).⁴⁷²</p> <p>Emissions will be reduced by at least 50% by 2020 as compared to current emissions (nearly stable in absolute value since 2007)⁴⁷³</p>
MMRV	<p>Monitoring Progress on compliance versus the policies will be tracked, quantified and reported yearly in the Group Sustainable Development report starting in 2014, as well as in the Forest Footprint Disclosure Project starting in 2012.</p> <p>Danone will use the results of source mapping (see baselines) to ensure that sources commit to practices meeting responsible palm oil criteria. If there is no progress, Danone will look for different sources to meet its requirements.</p> <p>Measurement Danone measures the carbon footprint of its entire product life cycle in every group subsidiary through the use of a measurement tool known as Danprint.⁴⁷⁴</p> <p>Reporting Danone will report results and progress of sustainable sourcing each year in Group Sustainable Development reports, starting in 2014. The results of the sourcing assessment phase 1 will be reported no later than 2015. The Danone annual Sustainability Reports include a table with its existing targets for 2020, performance in the current year, and milestones towards 2020.⁴⁷⁵</p> <p>Verification Management of traceability hurdles and third-party audits will be planned and put into place by suppliers to ensure compliance starting in 2014.⁴⁷⁶</p>
Chain of Custody	A traceable supply chain will be established through source mapping.
Subsidiary relationships	Danone measure the carbon footprint of all subsidiaries using Danprint. All supply sources are identified and monitored.
Noncompliance	If sources have made no progress in complying with Danone's definition of 'sustainably sourced', Danone will look for different sources to meet its requirements. ⁴⁷⁷

2.6 Golden Agri Resources (GAR) Forest Conservation Policy

⁴⁶⁹ Id.

⁴⁷⁰ Danone Sustainability Report. 2013.

⁴⁷¹ Danone. Committing to Deforestation-Free Palm Oil. 2014.

⁴⁷² Id.

⁴⁷³ Danone: A Sustainable Food Chain – Fight Climate Change. Accessed April 2015.

⁴⁷⁴ Danone Sustainability Report. 2013.

⁴⁷⁵ Id.

⁴⁷⁶ Danone. Forest Footprint Policy. 2012.

⁴⁷⁷ Danone. Committing to Deforestation-Free Palm Oil. 2014.

Overview: Golden Agri-Resources (GAR) is a major producer of palm oil and other commodities, producing around 5% of the world's palm oil. All of the company's plantations are located in Indonesia. To address the impact of GAR's palm oil production on deforestation, the company made commitments in coordination with Wilmar International, Cargill, and the Indonesian Chamber of Commerce (KADIN) to help conserve forest and achieve certification for all their palm oil operations.

Objective: GAR committed to actions to achieve zero-deforestation for their palm oil production starting in 2011, and applied it to their third-party producers in February 2014. The company also committed to achieving full RSPO certification for all its operations (existing in 30 June 2010) by 2015. The company passed a Forest Conservation Policy (FCP) in 2011 that guides future land development and conservation.

Commodity: Palm oil

Applicability: Golden Agri-Resources and all of their plantations and suppliers.

Registry: GAR Sustainability Dashboard accessible with registration
http://www.goldenagri.com.sg/sustainable_dashboard.php

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity

Environmental Targets

Most relevant to palm oil development, GAR's Forest Conservation Policy (FCP) of February 2011 sets the following guidelines:

- No development on high carbon stock forests
- No development on high conservation value forest areas
- No development on peat lands (regardless of depth)
- Free, prior and informed consent for indigenous and local communities
- Compliance with all relevant laws and National Interpretation of RSPO Principles and Criteria
- Additional related activities carried out in parallel are intended to facilitate the implementation of the FCP. These include:
 - Social and Community Engagement Policy
 - Yield Improvement Policy
 - Publication of the High Carbon Stock (HCS) Forest Study Report

Implementation of HCS forest conservation pilot project in West Kalimantan.⁴⁷⁸

GAR endorses ISPO, RSPO, ISCC and UNGC standards and benchmarks.

GAR recognizes that the Government of Indonesia plays a critical role in conserving HCS through new regulations and enacting relevant legislation to enable the transformation of the palm oil industry, including establishing and implementing a land swap process. Key players in the Indonesian palm oil industry should address the conservation policy with respect to HCS; and civil society organizations, local and indigenous communities and other stakeholders must engage in the process to transform the palm oil industry.⁴⁷⁹

Definitions

High Conservation Value (HCV): environmental, social or cultural attribute considered to be of exceptional importance at the local, regional or global level. An HCV area is an area that possesses one or more HCVs. The revised HCV Toolkit for Indonesia defines six HCVs comprising 13 sub-values. These 13 sub-values can be classified into three categories: (i) Biodiversity, (ii) Ecosystem Services and (iii) Social and Cultural.⁴⁸⁰

High Carbon Stock (HCS): Young regenerating forest (mostly young regrowth forest, but with occasional patches of older forest), low density forest (appears to be remnant forest but highly disturbed and recovering), medium density forest (remnant forest but more disturbed than high density forest) and high density forest (remnant forest or advanced secondary forest close to primary condition)⁴⁸¹

High Density Forest (HK3): Remnant forest or advanced secondary forest close to primary condition. Average 192 tC/ha;

⁴⁷⁸ Gold Agri-Resources Ltd. (2012). Preserving the Present, Ensuring the Future: Sustainability Report 2012.

⁴⁷⁹ GAR (2011) Press Release, "Golden Agri-Resources Initiates Industry Engagement for Forest Conservation."

⁴⁸⁰ For details, please refer to the Toolkit for the Identification of HCVs in Indonesia available at http://www.hcvnetwork.org/resources/national-hcv-interpretations/Toolkit%20HCVF%20English%20version_final-26Jan10.pdf.

⁴⁸¹ Greenpeace (2014) The High Carbon Stock Approach: 'No Deforestation' in Practice. Available at http://www.greenpeace.org/international/Global/international/briefings/forests/2014/HCS%20Approach_Breifer_March2014.pdf.

Medium Density Forest (HK2): Remnant forest but more disturbed than High Density Forest. Average 166 tC/ha;

Low Density Forest (HK1): Appears to be remnant forest but highly disturbed and recovering (may contain plantation/mixed garden). Average 107 tC/ha;

Old Scrub (BT): Mostly young re-growth forest, but with occasional patches of older forest within the stratum. Average 60 tC/ha;

Young Scrub (BM): Recently cleared areas, some woody regrowth and grass-like ground cover. Average 27 tC/ha;

Cleared/Open Land (LT): Very recently cleared land with mostly grass or crops, few woody plants. Average 17 tC/ha;⁴⁸²

Timelines	Full RSPO certification for all operations (present and prior to 30 June 2010) by 2015. Separate time-bound plans for plantations developed after 30 June 2010.
Geographic Area	Identification of sample plots for HCV areas.
Baselines	<p>GAR conducted a HCS forest study with Greenpeace and The Forest Trust (TFT) in 2012 which consisted of stratifying concession areas into strata (High Density, Medium Density, Low Density Forest, Old Scrub, Young Scrub and Cleared/Open Land), locating sample plots (25 plots for strata overlapping the provisional threshold of 35 tC/ha and 15 plots for all other strata), measuring and collecting data, estimating carbon of each stratum, ground trothing and providing inputs for land-use planning and HCV forest conservation.⁴⁸³</p> <p>Guidance documents:</p> <ul style="list-style-type: none"> • Guide to determining and measuring High Carbon Stock Forest⁴⁸⁴
MMRV	<p>Monitoring Follows Greenpeace methodology for identifying and conserving HCS.⁴⁸⁵ In August 2014, GAR joined an HCS Steering Group comprising NGOs and plantation companies to lead a process of further development and global standardization of the HCS methodology.</p> <p>Measurement Sample plots will be monitored and measured according to the biomass calculation methodology described in the HCS forest study report (see baselines).⁴⁸⁶</p> <p>Reporting GAR has issued progress reports on HCS pilots, the results of the HCS forest study, and publishes progress on sustainability developments using an online reporting system – GAR Sustainability Dashboard. A password is required for access.⁴⁸⁷</p> <p>Verification GAR commits to evaluating and reporting its performance regularly and in a transparent manner through its website, annual CSR report and on-going engagement with key stakeholders.⁴⁸⁸</p>
Chain of Custody	No information
Subsidiary relationships	GAR and its subsidiaries, including PT Smart Tbk (SMART) committed to finding solutions towards forest conservation.
Noncompliance	Information not available

2.7 Nestlé Creating Shared Value

Overview: Nestlé, one of the world's largest producers of food products has presented a Creating Shared Value (CSV) initiative that is meant to address multiple goals and improve outcomes on social equity, improved incomes and prosperity along Nestlé's supply chains, environmental sustainability, improved nutrition, and human rights. Nestlé CEO serves as CGF co-chair, and co-sponsors the health and wellness initiative. Nestlé is also actively involved in the Tropical Forest Alliance 2020, a public-private partnership aiming at achieving zero net deforestation by 2020 as per the CGF's sustainability resolutions.

⁴⁸² Golden Agri-Resources, Ltd. June 2012. High Carbon Stock Forest Study Report: Defining and identifying high carbon stock forest areas for possible conservation. http://www.goldenagri.com.sg/pdfs/misc/High%20carbon%20stock%20forest%20study%20report_updated.pdf

⁴⁸³ GAR (2012) High Carbon Stock Forest Study Report.

⁴⁸⁴ Golden Agri-Resources Ltd. 2012. Palm Oil Development Without Deforestation: Conservation High Carbon Stock Forest. [http://www.goldenagri.com.sg/pdfs/Sustainability/GAR_Brochure_\(6pp\)_v12.pdf](http://www.goldenagri.com.sg/pdfs/Sustainability/GAR_Brochure_(6pp)_v12.pdf)

⁴⁸⁵ GAR: Sustainable Palm Oil – High Carbon Stock Forest Conservation; see also Greenpeace (2013) Identifying High Carbon Stock (HCS) Forest for Protection: Towards Defining Natural Forests and Degraded Lands (formerly forest) in the Tropics.

⁴⁸⁶ GAR (2012) High Carbon Stock Forest Study Report.

⁴⁸⁷ GAR: Sustainability Dashboard. Accessed April 2015.

⁴⁸⁸ GAR (2011) Press Release, "Golden Agri-Resources Initiates Industry Engagement for Forest Conservation."

Objective: Within the broader CSV, Nestlé’s sub-plan of Responsible Sourcing is particularly relevant to REDD+. This plan intends to significantly improve traceability among supply chains and better meet a range of independent certification standards appropriate to the specific commodity.⁴⁸⁹ In 2010, Nestlé specifically committed that its products would not be associated with deforestation, and that all of its sources of palm oil would have to meet responsible sourcing guidelines.⁴⁹⁰

Commodity: Palm oil, dairy, coffee, cocoa, meat/poultry/eggs, hazelnuts, fish/seafood, soya, sugar, vanilla, paper/board, shea.

Applicability: Targets apply to all suppliers of these key commodities within Nestlé’s global supply chain.

Registry: <http://www.nestle.com/csv> is official website for CSV plan, though does not provide an official registry of data and activities.

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity	Suppliers
Environmental Targets	<p>Reduce direct GHG emissions per ton of product by 35% since 2005 by 2015.</p> <p>Achieve compliance with Responsible Sourcing Guidelines by 30% of volume of 12 priority categories of raw materials by 2015.</p> <p>Identify or update and address sustainability hotspots for 15 product categories by 2017.</p> <p>Fact-based environmental information will be accessible to consumers in all countries, enabling them to make informed choices and improve their own environmental impacts by 2016.</p> <p>No sourcing from areas converted from natural forests after 1 February 2013: products are sourced from land that has not been converted from natural forest to other land use.</p> <p>Identification and protection of HCVs:</p> <ul style="list-style-type: none"> • Products are sourced in a manner that maintains or enhances high conservation values in the surrounding landscape • HCS (including above ground carbon and water storage functions) are included as a high conservation value and Nestle will develop appropriate criteria • Suppliers will pay particular attention to HCVs needed to preserve water stewardship, livelihoods and species that require large contiguous habitats • Suppliers will not source products from IUCN protected areas categories I-IV UNESCO World Heritage Sites and wetlands on the Ramsar List • HCV areas have management plans that ensure the maintenance and/or enhancement of these areas and maximize connectivity of natural habitats within the landscape <p>Suppliers identify and reduce their significant environmental impacts in a process of continuous improvement, which includes, as applicable, the following aspects:</p> <ul style="list-style-type: none"> • Biodiversity is maintained and/or enhanced • GHG emissions are reduced <p>Suppliers are expected to verify that the palm oil they supply to Nestle:</p> <ul style="list-style-type: none"> • Does not come from areas cleared of natural forest after November 2005 • Is derived from plantations and farms which operate in compliance with local laws and regulations • Protects peatlands • Protects forest areas of high carbon value that are identified using the peer reviewed methodology developed by TFT, Greenpeace and GAR. Nestle recognizes that high carbon value areas are identified as regenerating forest, low density forest, medium density forest and high density forest • Complies with RSPO <p>Specific requirements for paper and board include a scorecard (adapted from WWF) which grades the following factors:</p> <ul style="list-style-type: none"> • Recycled fiber: <ul style="list-style-type: none"> ◦ Post/pre-consumer (% of total fiber content) • Virgin fiber:

⁴⁸⁹ See Nestlé (2013). Nestlé in Society: Creating Shared Value and meeting our commitments 2013. Full Report. http://www.nestle.com/asset-library/documents/library/documents/corporate_social_responsibility/nestle-csv-full-report-2013-en.pdf

⁴⁹⁰ Nestlé (2013). Progress Report Palm Oil, Autumn 2013. <http://www.nestle.com/asset-library/documents/creating-shared-value/responsible-sourcing/progress-report-palm-oil-autumn-2013.pdf>

- Verified legality, virgin fiber of legal origin (% of total fiber content)
- Verified controlled sources - virgin fiber units or regions where HCVs are maintained and forests are not converted to plantations or other land use (% of total fiber content)
- Credibly certified sources – virgin fiber from forests certified under schemes characterized by international consistency, balanced multi-stakeholder governance and public transparency (% of total fiber content)
- GHG, water pollution and waste
 - Environmental Management Systems – EMAS, ISO 14001 or equivalent third-party audited systems (% manufactured in EMS certified mills)

Specific requirements for soy (apply to all soy suppliers with an emphasis on (1) regions where potential expansion of soy may lead to loss of natural forests or HCV areas and (2) regions that constitute major sourcing areas for the company):

- Products are not sourced from land that has not been converted from HCV areas to other land use
- In the Amazon Biome, suppliers will respect the existing Soy Moratorium and not source from areas cleared of natural habitat after 2006
- For other regions, in line with RTRS, land should not have been converted to agriculture from a HCV area after 2008
- Nestle supports the prompt development of HCV maps for landscapes in HCV areas include the Brazilian Cerrado, Argentinean Chaco and Pampas by the RTRS working group and other stakeholders
- HCV assessments should be undertaken prior to any clearing
- Guidance provided by the HCV Resource Network must be followed

Plantations may be removed (or not replanted after harvesting) in order to enhance overall conservation values of a landscape (e.g., removing trees from water courses to improve water conservation or deep peats, as allowed by FSC). Such forest areas would need to be FSC certified to allow for deforestation.

Similarly, in degraded forest landscapes with no remaining conservation value, there may be justification for limited conversion. Clear criteria would be developed through stakeholder consultation, an HCV assessment would be carried out, and the case submitted for independent scientific review or (where available) the area certified to a certification standard approved by Nestle.

Guidance Documents:

- Nestlé Supplier Code⁴⁹¹
- Nestlé Responsible Sourcing Guideline⁴⁹²
- Commitment on Deforestation⁴⁹³

Definitions	<p>Deforestation: the clearing of forests for the expansion of agriculture or forest plantations</p> <p>High conservation values are as defined by the HCV Resource Network⁴⁹⁴</p> <p>Forest: National definitions, or those agreed through stakeholder processes (e.g., RTRS)</p>
Timelines	Cut-off date: 1 February 2013 (commodity-specific cut-off dates set by accepted standards, see verification section)
Geographic Area	HCV mapping.
Baselines	<p>Nestle supports the prompt development of HCV maps for landscapes in HCV areas include the Brazilian Cerrado, Argentinean Chaco and Pampas by the RTRS working group and other stakeholders. HCV assessments should be undertaken prior to any clearing. Guidance provided by the HCV Resource Network must be followed</p> <p>2005 baselines year for GHG emissions</p>
MMRV	<p>Monitoring</p> <p>Nestle expects its suppliers to take ownership and leadership in development and implementing continuous improvement measures against all aspects of the Responsible Sourcing Guidelines. As appropriate, Nestle will provide support to suppliers that are not yet able to comply with all aspects of the RSG, but are committed to becoming compliant over time and demonstrate continuous and tangible progress.</p> <p>Nestle follows the monitoring requirements of recognized standards (see verification section).</p> <p>Participates in the Forests Footprint Disclosure that monitors contributions of major companies' operations to deforestation.⁴⁹⁵</p> <p>Measurement</p> <p>Follows measurement requirements of recognized standards.</p> <p>Reporting</p> <p>Nestle provides fact-based environmental information based on scientific, substantiated evidence from Life Cycle Assessments to consumers, and has launched the Nestle solution for Environmental and Social External Communications Approval (NESESCA), an internal web-based tool designed to improve the quality of external environmental and social communications.⁴⁹⁶</p>

⁴⁹¹ <http://www.nestle.com/asset-library/documents/library/documents/suppliers/supplier-code-english.pdf>

⁴⁹² http://www.nestle.com/asset-library/documents/library/documents/corporate_social_responsibility/nestle-responsible-sourcing-guidelines.pdf

⁴⁹³ http://www.nestle.com/asset-library/documents/library/documents/corporate_social_responsibility/commitment-on-deforestation-2013.pdf

⁴⁹⁴ HCV Resource Network website. Accessed 24 October 2014. <https://www.hcvnetwork.org/about-hcvf>

⁴⁹⁵ CDP (2013). Forest Footprint Disclosure. <https://www.cdp.net/CDPResults/CDP-global-forests-report-2013.pdf>

⁴⁹⁶ Nestle (2014) Creating Shared Value and Meeting Our Commitments 2014 Performance Summary.

Follows reporting requirements of recognized standards.

Verification

Verification for the following principles is accepted through independent verification (certification):

- No forest conversion (FSC, RTRS)
- Maintain and enhance HCVs, protect high carbon values and protected areas (FSC, RSPO, RTRS)
- Conflict wood/forest based supplied (FSC)
- Credibly certified paper scorecard (FSC)
- Conservation of natural resources and biodiversity (ASC, FSC, RSPO, RTRS, Bonsucro, SAN)

Compliance with principles can also be verified by HCV assessments, biodiversity/forest assessments, and policy commitments by suppliers.

Chain of Custody	Nestle expects its suppliers to conduct their business with Nestle in an open and transparent way, which includes providing transparency of material flows throughout the upstream value chain providing evidence of product identify and that no adulteration has happened, with the overall objective to ensure the supply of responsibly produced products. ⁴⁹⁷ In its extended value chains, Nestle expects its suppliers to continuously monitor and verify their performance and continuous improvement against the Responsible Sourcing Guidelines. In the case of high sustainability risks, Nestle reserves the right to verify such monitoring and performance by independent assessments or certification.
Subsidiary relationships	No information
Noncompliance	No information

2.8 Procter & Gamble (P&G) Sustainability Policies

Overview: P&G is one of the world's largest producers of consumer goods, and a major buyer of palm oil for many of its soaps and cosmetics products, and wood pulp for its paper products. In line with other major consumer goods companies, P&G has issued new sustainability goals for 2020 and updated its policies on sourcing of palm oil and wood pulp.

Objective: Broadly, P&G has pledged to purchase wood pulp from sustainably managed forests that are independently verified by a third party, as well as avoiding high conservation value forests and conflict timbers. With palm oil, P&G commits to full traceability of its supply chain and ensuring no net deforestation from its supplies by 2020, in line with major consumer goods forum commitments.

Commodity: Palm oil and wood pulp

Applicability: Entire P&G supply chain for wood pulp and palm oil.

Registry: None

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity

Environmental Targets

Core principles for sustainable forest management, P&G purchases wood pulp from suppliers that:

- Ensure the safety of forestry and manufacturing operations for employees and the environment
- Document that wood is legally harvested and that other legal requirements are met. P&G will not knowingly use illegally sourced wood fiber in its products
- Practice principles of sustainable forest management and continuous improvement in operations in sourcing of wood, as verified by independent forest and chain of custody certification
- Do not obtain wood from HCV forests. P&G supports multi-stakeholder efforts to develop information sources and tools that will help suppliers identify these areas in their own forestlands and in their procurement of wood raw materials from third parties

P&G is committed to no deforestation in sourcing of palm oil, palm kernel oil and derivatives. Specific commitments include:

- Establish traceability of palm oil and palm kernel oil to supplier mills by December 31, 2015
- Ensure no deforestation in the palm supply chain to plantations by 2020
- Require palm oil suppliers to submit plans by December 31, 2015 demonstrating how they will ensure no deforestation in supply

⁴⁹⁷ Nestle (2013) Nestle Responsible Sourcing Guideline.

- chain for their mills by 2020
- Invest in and work with small farmers with the aim of improving palm kernel oil practices to ensure no deforestation in the supply chain by 2020
- Work with suppliers, industry peers, NGOs, academic experts and other stakeholders to promote consistent industry standards and practices for sustainable palm oil sourcing

To ensure no deforestation in the palm supply chain P&G will:

- Develop a traceable supply chain
- Ensure suppliers meet RSPO criteria and can ensure:
 - No development of HCV and HCS areas/forests
 - No new development of peat lands regardless of depth
 - No burning to clear land or new development or replanting
 - Meet expectations of P&G's existing Sustainability Guidelines for Suppliers
- Work with suppliers, industry peers, NGOs, academic experts, and other stakeholders to promote consistent industry standards and practices in palm oil sourcing with the aim of achieving full traceability and elimination deforestation

Guidance documents:

- Policies and Practices on Palm Oil⁴⁹⁸ and Wood Pulp⁴⁹⁹

Definitions	<p>HCV forests: HCV network⁵⁰⁰</p> <p>HCS forests: GAR, TFT and Greenpeace</p>
Timelines	<p>2016: establish traceability of palm oil and palm kernel oil supplier mills</p> <p>2016: require palm oil suppliers to submit plans demonstrating how they will ensure no deforestation in supply chain for their mills by 2020</p> <p>2020: no deforestation in supply chain</p>
Geographic Area	No information
Baselines	No information
MMRV	<p>Monitoring P&G requires pulp suppliers to independently certify their operations for sustainable forest management. P&G also requires suppliers to provide auditable assurance that wood from sources not directly owned and managed by them is legally sources and that harvest is conducted via sustainable practices.⁵⁰¹</p> <p>For palm oil, P&G requires suppliers to submit plans by December 31, 2015 that demonstrates how they will ensure no deforestation in the supply chain for their mills by 2020.</p> <p>Measurement No information</p> <p>Reporting P&G commits to report annually on the progress toward achieving sustainability goals</p> <p>Verification P&G ensures compliance with the sustainable forest management policy through site visits, comprehensive surveys and research, required documentation and independent third-party certification of sustainable forest management practices.</p> <p>P&G recognizes sustainable forest management certifications, RSPO certification and chain of custody certifications for both.</p>
Chain of Custody	<p>P&G requires its suppliers to ensure traceability and no deforestation throughout the supply chain. It endorses RSPO and its chain of custody standard to demonstrate compliance.</p> <p>Guidance documents:</p> <ul style="list-style-type: none"> Sustainability Guidelines for External Business Partners⁵⁰²
Subsidiary relationships	No information
Noncompliance	No information

⁴⁹⁸ http://www.pg.com/en_US/sustainability/policies_practices/palmoil.shtml

⁴⁹⁹ http://www.pg.com/en_US/sustainability/policies_practices/woodpulp.shtml

⁵⁰⁰ http://www.pg.com/en_US/sustainability/policies_practices/woodpulp.shtml

⁵⁰¹ P&G Sustainability Policies: Wood Pulp. Accessed April 2015.

⁵⁰² <http://www.pgsupplier.com/en/pg-values/sustainability.shtml>

2.9 Sustainable Agriculture Initiative (SAI)

Overview: The Sustainable Agriculture Initiative (SAI) Platform is an organization established by Nestlé, Danone, and Unilever, and currently has a membership of 70 food and beverage companies. The objective of SAI is to “facilitate sharing...of knowledge and initiatives to support the development and implementation of sustainable agriculture practices involving the different stakeholders of the food chain.”⁵⁰³ SAI has produced a Farm Sustainability Assessment and sets of Principles & Practices for individual commodities that are intended to evaluate and improve performance and support companies in their procurement of sustainable commodities.

Objective: SAI has 5 working groups on specific sets of farm commodities representing the primary areas of interest within the SAI member companies. SAI works to develop tools, practices, and promoting projects for adaptation, mitigation, and other sustainability practices concerning key commodities, as well as four cross-cutting committees concerning (1) Biodiversity, (2) Farmer and Supplier Partnership, (3) Farm Sustainability Assessment, and (4) Water.⁵⁰⁴

Commodity: (1) Arable and vegetable crops, (2) Beef, (3) Coffee, (4) Dairy, and (5) Fruit.

Registry: Not registry per se, but website provides comparative tool of different sustainability assessments, certifications, and labels.

<http://www.standardsmap.org/fsa/>

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity	Farmers
Environmental Targets	<p>Help farmers and companies improve farm level sustainability through the use of information sharing and comprehensive evaluation tools on ecological, financial, agricultural, climate change, water, and other critical factors for farm level management and sustainability. While the SAI's Platform's tools do not comprise a certification scheme with specific targets per se, their indicators and evaluation tools can be directly compared to other agricultural certification schemes.</p> <p>Coffee⁵⁰⁵</p> <p>Maintain or enhance biological diversity on the farm:</p> <ul style="list-style-type: none">• Protect areas of high ecological value located on and around the farm, such as streams, wetlands and forests, via the minimization of human intervention and the implementation of measures for conservation. Such areas need connecting in order to create biological corridors that enable the migration and the exchange of species. Promote the restoration of vegetation in degraded/abandoned areas that have been prone to loss of fertility or soil erosion, preferably by using native species• Strictly preserve primary forests.• Make use of shade trees of different, preferably native species that are compatible with coffee production. Alternatively, establish or maintain significant forest areas as ecological compensation zones. <p>Fruit⁵⁰⁶</p> <p>Maintain or enhance biological diversity on the farm:</p> <ul style="list-style-type: none">• The impact of current practices shall be assessed in terms of their contribution to the protection of fauna and flora diversity in the farm environment• Farming in protected areas shall strictly comply with the regulations applicable to these areas• Restoration of vegetation is encouraged in degraded areas preferably by using native species <p>Arable Vegetable Crops⁵⁰⁷</p> <p>Maintain or enhance biological diversity on the farm:</p> <ul style="list-style-type: none">• Farmers are encouraged to have a biodiversity action plan for their farm which includes:<ul style="list-style-type: none">○ A map of the location of areas or features important to biodiversity on and around the farm○ An assessment of any particular biodiversity issues on and around the farm○ Details of how provision is made for wildlife habitats and food sources through hedges, field margins, extensive pasture, etc.

⁵⁰³ SAI Platform. Who We Are. Accessed 24 October 2014. <http://www.saiplatform.org/about-us/who-we-are-2>

⁵⁰⁴ SAI Platform In Action. Accessed 24 October 2014. <http://www.saiplatform.org/activities/sai-in-actions>

⁵⁰⁵ SAI (2009) Principles & Practices for Sustainable Green Coffee Production.

⁵⁰⁶ SAI (2009) Principles & Practices for Sustainable Fruit Production.

⁵⁰⁷ SAI (2009) Principles & Practices for Arable and Vegetable Crops.

- Details of measures to protect important biodiversity features or areas
- A practical plan to make progress in an area of conservation/protection/education
- A periodic review to assess biodiversity improvement
- The biodiversity action plan should also consider the following for guidance:
 - The farm environment is enhanced for locally important, rare or endangered species by providing the appropriate habitats and adopting appropriate cultural practices, and reducing the negative impact of operations such as using agrochemicals, plowing, grass cutting and hedge cutting
 - Areas of higher ecological value located on the farm are protected via the minimization of human intervention and the implementation of measures for the conservation of biodiversity, soil, water, flora and fauna. In particular, field margins and buffer zones are maintained and dominated by native species
 - Restoration of vegetation is encouraged in degraded areas that have been prone to loss of fertility or soil erosion, preferably by using native species

All crops

Minimize adverse impacts on the global environment and climate change:

- On the basis of established mechanisms and available inputs, estimate and monitor GHG emissions (methane, nitrous oxide, carbon dioxide) of the dairy herd and of manure storage as well as from other on-farm practices and off-farm inputs
- Mitigate and minimize these GHG emissions

SAI Platform provides sustainable sourcing guidelines to members to encourage the development of effective internal standards.

Guidance documents:

- Sustainable Sourcing of Raw Agricultural Materials: A Practitioner's Guide⁵⁰⁸

Definitions	No information
Timelines	No information
Geographic Area	For arable vegetable farmers, maps must be provided of the location of areas or features important to biodiversity on and around the farm.
Baselines	<p>Climate and energy:⁵⁰⁹ The Sustainable Performance Assessment guidelines for background data include:</p> <ul style="list-style-type: none"> ● Emission factors: IPCC Tier 2 ● Farm activity data and related emission, e.g., manure application, etc. ● Default land use change (when farmers only enter crucial data, see Monitoring section) ● Average yield; region and crop specific, primary production and harvest indices (when farmers only enter crucial data, see Monitoring section) <p>Biodiversity: no background data required</p> <p>Land use: crop type and crop yields</p> <p>Arable vegetable crop farmers are encouraged to have a biodiversity action plan for their farm which includes:</p> <ul style="list-style-type: none"> ● A map of the location of areas or features important to biodiversity on and around the farm ● An assessment of any particular biodiversity issues on and around the farm <p>Guidance documents:</p> <ul style="list-style-type: none"> ● Farm Sustainability Assessment (FSA) 2.0⁵¹⁰ ● Sustainable Performance Assessment (SPA) 2.0⁵¹¹
MMRV	<p>Monitoring⁵¹²</p> <p>Climate and energy: The system boundaries are set at cradle to farm gate, from input production (e.g. fertilizer) up to products leaving the farm. Farm data entered by the farmer is separated into "crucial" (relatively simple data, where data is not entered defaults from background database are used) and "useful" (extra information for which fewer background data are needed). Crucial data includes yield and useful data includes land use changes in last 20 years (forest to arable or grassland and vv).</p> <p>Biodiversity: Farm data consists of a farmer's answers to a list of approximately 30 questions on biodiversity-enhancing farm conditions and management measures (yes/no questions or multiple choice options). "Although reported actual flora and fauna found on and around the farm may be the most accurate indicators, it is impossible to impose monitoring obligations on farmers."</p> <p>Land use: The system boundaries for land use is related to the cultivation of the crop with yield as an important driver.</p> <p>Measurement</p> <p>Climate and energy: GHG emissions calculations should include emissions from energy, production of materials and commodities, pre-farm transport, and on-farm operations, including land use, land-use change and forestry (including sequestration). GHGs shall be measured by mass and converted into CO2 equivalents using the latest IPCC 100-year global warming potential coefficients (2007). For calculating on-farm emissions, the suggested method is IPCC Tier 2 (IPCC 2001).</p>

⁵⁰⁸ <http://www.saiplatform.org/sustainable-sourcing-guide>

⁵⁰⁹ SAI (2014) Sustainable Performance Assessment 2.0.

⁵¹⁰ <http://www.saiplatform.org/fsa/fsa-2>

⁵¹¹ <http://www.saiplatform.org/activities/alias/SPA>

⁵¹² SAI (2014) Sustainable Performance Assessment 2.0.

Biodiversity: The proxy used for biodiversity impact is a score based on efforts to maintain and enhance biodiversity. The score is on a relative scale, e.g., 1 to 100. Measurement is based on farmer's answers to questions (see Monitoring section).

Land use: The output indicator is land used for production expressed in square meters per kg of product, or square meter per farm. The inverse of the yield is taken for obtaining the land requirement per crop. Preferably the actual yield is used, but average yields from country of origin, average of all countries of potential origin, or global average may be used depending on available information. "More advanced and complex calculations are possible. These include indirect land use due to other farm inputs and/or environmental degradation and/or soil quality but are regarded as too complex and require much more data compared to the additional information gained for agricultural products."

Reporting

No information

Verification

SAI is developing a document outlining verification requirements if the FSA is used to make sustainable sourcing claims (coming later in 2015).⁵¹³

Chain of Custody	No information
Subsidiary relationships	No information
Noncompliance	SAI will be establishing an audit protocol which will address noncompliance with the FSA (coming later in 2015). ⁵¹⁴

2.10 Unilever Sustainable Living Plan

Overview: Unilever is one of the world's largest consumer food producers and a major buyer of agricultural commodities. Palm oil is the largest contributor to deforestation within its supply chain. Unilever participates in the Roundtable for Sustainable Palm Oil (RSPO), and has committed to significant increases in sustainable sourcing with clear targets for their top 10 commodities by 2020. "Unilever is one of the world's major buyers of palm oil for use in products such as margarine, ice cream, soap and shampoo. It purchases around 1.5 million tonnes of Palm Oil and its derivatives annually, which represents about 3% of the world's total production."⁵¹⁵

Objective: Unilever pledges to source 100% of their agricultural materials from sustainable sources by 2020. They claim that at the end of 2013, they had achieved 48% of sustainable sourcing.⁵¹⁶

Commodities: Palm oil, paper and board, soy, tea, fruit and vegetables, cocoa, sugar, sunflower oil, rapeseed oil, dairy/eggs, office materials.

Applicability: All of Unilever's supply chain for 10 major agricultural commodities; focus on palm oil with respect to palm deforestation

Registry: No registry; the companies Sustainable Living reports are available at <http://www.unilever.com/sustainable-living-2014/news-and-resources/reports-and-publications/> However, Unilever, Wilmar, and some other companies are being encouraged to use <http://commodities.globalforestwatch.org/> in order to monitor supply chain impacts on forests.

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

⁵¹³ Information gathered from SAI representative, June 2015.

⁵¹⁴ Id.

⁵¹⁵ Unilever Press Release. 11 December 2013. 100% of Palm Oil bought will be traceable to known sources by end 2014. <http://www.unilever.com/mediacentre/pressreleases/2013/100pcofpalmoilboughtwillbetraceabletoknownsourcesbyend2014.aspx>

⁵¹⁶ Unilever (2013). Unilever Sustainable Living Plan 2013: Making Progress, Driving Change. http://www.unilever.com/images/slp_Unilever-Sustainable-Living-Plan-2013_tcm13-388693.pdf

Certified Entity	Suppliers (responsible sourcing policy), wholly owned companies and subsidiaries (sustainable living plan)
Environmental Targets	<p><u>Sustainable Living Plan:</u> Purchase all palm oil from sustainable sources by 2015; and purchase all palm oil sustainably from certified, traceable sources by 2020.⁵¹⁷</p> <p>Reduce lifecycle GHG emissions of all products by 50% by 2020. This target will be achieved through:</p> <ul style="list-style-type: none"> • Reducing GHG emissions associated with raw materials • SEAC is currently focusing on ways to improve the quality and scope of GHG impact assessment for agricultural raw materials by incorporating the GHG emissions arising from land use and land use change and biodegradation, and by understanding the contribution of agricultural certification schemes (e.g., Rainforest Alliance or RSPO) on GHG.⁵¹⁸ <p><u>Responsible Sourcing Policy</u> Business must be conducted in a manner which embraces sustainability and reduces environmental impact.⁵¹⁹ Operations, sourcing, manufacture, distribution of products and the supply of services are conducted with the aim to protect and preserve the environment. Continuous improvement benchmarks include:</p> <ul style="list-style-type: none"> • Environmental management polices and procedures are in place regarding deforestation and other significant risks • Training is provided to all personnel on environmental policies and procedures to ensure effective implementation and compliance • Suppliers and farmers where relevant uphold the guidelines within the Unilever Sustainable Agriculture Code • Transparency is ensured on environmental performance • Sustainability practices are embedded across the supplier's operations and activities which aim to reduce GHG emissions and obtain carbon neutral solutions, protect and enhance nature and biodiversity and halt deforestation <p><u>Sustainable Agriculture Code:</u> "Must" requirements:</p> <ul style="list-style-type: none"> • Strategic commitment to at least one biodiversity initiative • Training records for suppliers, farmers and farm workers • Suppliers must provide the necessary data for calculating the metric "protect and improve habitats for biodiversity" • Suppliers must be aware of and demonstrate evidence of compliance with national legal obligations with respect to biodiversity (e.g., protection of conservation sites, land conversion, land use change, pollution, etc.) • Destroying important habitats on-farm and off-farm is prohibited even if there are concessions, including gradual encroachment over time • Collecting of rare, endangered species • Must develop and implement a locally appropriate Biodiversity Action Plan, including: <ul style="list-style-type: none"> ○ Assessment of biodiversity issues in and around the land area where the Unilever crops are produced ○ A practical plan to make progress in at least one area of biodiversity conservation/protection/equitable use or education • Before any major conversion of > 1 hectare of purchase or rented land to agricultural use a full Environmental Impact Assessment must be performed and recommendations followed <p>"Should" requirements:</p> <ul style="list-style-type: none"> • Biodiversity Action Plan • Records of progress against the plan/improvements made • Any Environmental Impact Assessment or evaluation made before changes in land use • The impact of the Biodiversity Action Plan should be monitored • Unilever suppliers or farmers should participate in research to understand the value of local farmland to biodiversity and the value of farmland ecosystem services to others and how these might be enhanced • Unilever suppliers should raise awareness of and share knowledge/opportunities for biodiversity enhancement, to ensure best practice • Biodiversity action plans should also include: <ul style="list-style-type: none"> ○ Basic map of the location areas important for biodiversity in and around the farms and local area ○ Evaluation of interrelationships between agriculture and these issues ○ Realistic evaluation of business influence on these issues • Areas unsuitable for agriculture or where it is uneconomic to grow or harvest particular crops should be identified and converted to a use conducive to biodiversity • For conversion < 1 hectare, environmental implications of extension of agricultural or built-up areas should be considered, and plans to mitigate the impact on biodiversity developed • Expansion of agricultural areas should not cut through wildlife corridors or routes used for migration if these are known to exist on the farm <p>Before the conversion of forest to plantation or farm the following assessments must be done:</p> <ul style="list-style-type: none"> • Large-scale proposal to convert rainforest or savannah area to plantation or farm or major changes in farming systems (e.g., conversion of cocoa farms to palm oil) <ul style="list-style-type: none"> ○ Detailed EIA managed by professional and internationally-recognized experts working in partnership with social and environmental NGOs ○ Recognition that forest was degraded before work goes ahead, contains no HCV or peat soils, may demand compensatory pro-biodiversity work elsewhere and mitigation plans • Consolidation of fields by removing hedgerows, patches of native vegetation or draining wet areas <ul style="list-style-type: none"> ○ Detailed, managed by professional and nationally-recognized experts

⁵¹⁷ Unilever: Our Targets: Taking Action. Accessed April 2015.

⁵¹⁸ Unilever: Environmental Sustainability. Accessed April 2015.

⁵¹⁹ Unilever (2014) Responsible Sourcing Policy.

- May demand compensatory pro-biodiversity work elsewhere
- Removal of native vegetation for road-building, hydro-scheme or other infrastructural development (1-10 ha) including removal or re-siting of long-term landscape features or field boundaries
 - Managed by professional and nationally-recognized experts (or in-house for larger farming organizations or plantations with the necessary skills)
- Removal of small areas of vegetation or a few trees
 - Managed in-house and documented

Show that issues such as compensatory activity have been considered and implemented where practical (e.g., planted 2 trees for every one removed)

Definitions	No information
Timelines	<p>2015: All palm oil will be purchased from sustainable sources.</p> <p>2020: All palm oil will be purchased from certified, traceable sources.</p>
Geographic Area	<p>Basic maps of the area should identify:</p> <ul style="list-style-type: none"> • Important wildlife habitats in the area both on- and off-farm • Location of wetlands, other areas of natural vegetation, areas of woodland, forest, wetland, etc. close by but outside the farm boundaries, including any nature reserves in the area • Boundary areas, e.g., between fields or at field edges or roadsides that may already be or the potential to become wildlife corridors • Distance and direction of any nature reserves, protected wetland or forests in the vicinity or the same catchment
Baselines	<p>To set the baseline, Unilever assessed GHG emissions across the lifecycle of more than 1,600 representative products in 2008. It calculated it at an absolute level as well as on a "per consumer use" basis in 14 countries. The calculation cover 70% of total volume. The 2008 baseline was a relatively manual process. In 2012 Unilever invested in an automated process to improve the speed and accuracy of footprint calculations, which measure on a rolling basis from 1 July to 30 June. The new measurement also expanded the number of products assessed to over 2,000. The automatic process starts with 2010 data, and Unilever uses the 2010 baseline in its plan to reduce environmental footprint by 50% by 2020. A lifecycle approach with a baseline of 2010 was used for environmental targets, which are express on a "per consumer" basis meaning a single use, portion or serving of a product.⁵²⁰</p> <p>Sustainable Agriculture Code: basic maps of the area should produced including identification of:</p> <ul style="list-style-type: none"> • Important wildlife habitats in the area both on- and off-farm • Location of wetlands, other areas of natural vegetation, areas of woodland, forest, wetland, etc. close by but outside the farm boundaries, including any nature reserves in the area • Boundary areas, e.g., between fields or at field edges or roadsides that may already be or the potential to become wildlife corridors • Distance and direction of any nature reserves, protected wetland or forests in the vicinity or the same catchment <p>Before the conversion of forest to plantation or farm the following assessments must be done:</p> <ul style="list-style-type: none"> • Large-scale proposal to convert rainforest or savannah area to plantation or farm or major changes in farming systems (e.g., conversion of cocoa farms to palm oil) <ul style="list-style-type: none"> ○ Detailed EIA managed by professional and internationally-recognized experts working in partnership with social and environmental NGOs ○ Recognition that forest was degraded before work goes ahead, contains no HCV or peat soils, may demand compensatory pro-biodiversity work elsewhere and mitigation plans • Consolidation of fields by removing hedgerows, patches of native vegetation or draining wet areas <ul style="list-style-type: none"> ○ Detailed, managed by professional and nationally-recognized experts ○ May demand compensatory pro-biodiversity work elsewhere • Removal of native vegetation for road-building, hydro-scheme or other infrastructural development (1-10 ha) including removal or re-siting of long-term landscape features or field boundaries <ul style="list-style-type: none"> ○ Managed by professional and nationally-recognized experts (or in-house for larger farming organizations or plantations with the necessary skills) • Removal of small areas of vegetation or a few trees <ul style="list-style-type: none"> ○ Managed in-house and documented ○ Show that issues such as compensatory activity have been considered and implemented where practical (e.g., planted 2 trees for every one removed)
MMRV	<p>Monitoring</p> <p>Sustainable Living Plan: For each representative product, a number of internal and external data sources are used to describe the various life cycle activities and inputs. These data sources are combined with GHG emissions factors obtained primarily from external databases, for example raw material emissions data is from external sources and is industry averages. A small number of internal expert studies are also used where necessary. Sourcing and ingredient information is analyzed and combined with manufacturing impacts and data on consumer habits (which often varies by country). The material is subject to internal review to identify and correct material anomalies before it is reported.</p> <p>Changes as a result of better scientific understanding (e.g., land use change) are taken into account in the current year but are not applied to the 2010 baseline.</p> <p>Unilever managers are responsible for ensuring compliance with the standards.</p> <p>Responsible Sourcing Policy: Suppliers submit self declarations, undergo online assessments and third-party audits in designated high risk countries to monitor compliance with the responsible sourcing principles. A systematic review of the supplier's sustainability practices and</p>

⁵²⁰ Unilever: Our Big Goal: Reducing Environmental Impact. Accessed April 2015.

environmental management systems is undertaken regularly with support from experienced conservationists and with the involvement of local communities to determine whether appropriate policies and procedures are in place and are functioning to achieve the aims of the policy. Implementation tips include:

- Build clear environmental performance targets into your business plan and aim to do great business without causing environmental harm

Sustainable Agriculture Code: all records must be accessible and kept for at least 2 years. Farmers must follow environmental impact management plans which illustrate where they can or cannot expand, any compensatory measures that must be carried out, and require that they must manage land in a way that the worst impacts on biodiversity are limited.

To ensure raw materials are “sustainably sourced” farmers/suppliers may work towards certification by SAN, Fairtrade, RSPO, MSC, FSC or any organic standard recognized by PEFC or IFOAM, or illustrate compliance through self-assessment using the Unilever Sustainable Agriculture Code.

Measurement

Sustainable Living Plan: The metric used to measure lifecycle GHG emissions covers emissions related to raw materials, manufacture, transport, retail, consumer use and disposal of products. For each product the sourcing and ingredient information, manufacturing impacts and data on consumer habits (which often vary by country) are analyzed. Footprint calculations are measured on a rolling basis from 1 July to 30 June. GHG per consumer use are measured in CO2 equivalents across the product lifecycle (grams).

Sustainable Agriculture Code: to measure the protection and enhancement of habitats for biodiversity, Unilever measures the total area as the sum of the following:

- Conservation programs for natural habitats within farm or plantation boundaries, size in ha, proportional to cropped area for Unilever
- Any off-site conservation program, size of such program in ha, proportional to Unilever support or control
- Includes field margins, period of stubble after harvest

To measure GHG emissions, Unilever uses its Greenhouse Gas Calculator (available to suppliers).

Reporting

Sustainable Living Plan: Unilever reports on the progress of commitments through two main channels: Annual Report and Accounts (includes summary of sustainable living performance) and the Online Unilever Sustainable Living Report (principal means of reporting performance against the targets set out in the Sustainable Living Plan). Several Unilever companies also provide their own country reports describing their actions.

The boundaries and scope of reporting include performance data for direct operations and a discussion of issues arising in the extended value chain, which encompasses both supply chain and how products reach consumers.

Responsible Sourcing Policy: Implementation tip - Raise awareness of your targets amongst internal and external stakeholders and support that by reporting periodically.

Verification

Sustainable Living Plan: Over 2010-2011 Unilever invited an external panel of environmental lifecycle analysis experts to review the approach, looking at the scope and boundaries of the metrics, validity of calculation methods, assumptions and data sources. In 2013, PwC, the assurers for the Unilever Sustainable Living Plan, undertook assurance of the GHG footprint measurement process and results, covering the entire value chain.

Independent external assurance is carried out on selected Unilever Sustainable Living Plan and Environmental and Occupational Safety performance indicators annually. These verified indicators assess GHG emissions and the percentage of suppliers that are certified.

Guidance documents:

- Unilever’s Basis of Preparation 2013 for those Unilever Sustainable Living Plan (USLP) and Environmental and Occupational Safety (EOS) performance indicators selected for independent assurance: defines indicators, goals, and means to measure progress.⁵²¹

<p>Chain of Custody</p>	<p>Sustainable Living Plan: The GHG lifecycle assessment covers products from raw materials to disposal, covering the entire supply chain.</p> <p>Guidance documents:</p> <ul style="list-style-type: none"> • Unilever’s 2014 Responsible Sourcing Policy⁵²²
<p>Subsidiary relationships</p>	<p>Sustainable Living Plan: Data on environmental indicators is provided for Unilever’s wholly owned companies and subsidiaries. Performance indicators do not cover contract production or outsourced support services. Operations and site where Unilever does not have management control and operations categorized as joint ventures or investments are excluded from the scope of all performance indicators, unless otherwise indicated.⁵²³</p>
<p>Noncompliance</p>	<p>Any failure to comply with the responsible sourcing policy (including any failure by an employee of Unilever or anyone acting on behalf of Unilever to so comply) of which the supplier is aware, should be immediately reported to Unilever. The failure to do so will be a breach of the policy. Unilever will investigate any reported non-conformity made in good faith and discuss finding with the supplier. The supplier shall assist with any such investigation and provide access to any information reasonably requested. If remediation is required, the supplier will be</p>

⁵²¹ http://www.unilever.com/images/Unilevers_basis_of_preparation_2013_ar13_tcm13-387186.pdf

⁵²² http://www.unilever.com/images/slp-Unilever-Responsible-Sourcing-Policy-2014_tcm13-388879.pdf

⁵²³ Unilever: About Our Reporting. Accessed April 2015.

expected to inform Unilever and implement a corrective action plan and timeline to effectively and promptly resolve the failure. Suppliers, their workers or contracts may report actual or suspected breaches to Unilever.

2.11 Wilmar

Overview: Wilmar, the world's largest palm oil producer and supplier, controls 45% of the global trade in palm oil. In December 2013, the company committed to a global "No Deforestation, No Peat, No Exploitation Policy".⁵²⁴ This commitment was coordinated with Unilever, one of the major buyers of Wilmar palm oil, to ensure that Wilmar would only supply palm oil that meets these new requirements.⁵²⁵

Objective: Wilmar commits to stop all future plantation development (new areas developed after 31 December 2013) in HCV or HCS areas. The company pledges to no plantation development on peat lands, as well as restoring peatlands. Finally, the company commits to no exploitation of people or local communities (following agreed standards on human rights and free, prior, and informed consent). The company also aims to achieve RSPO certification for 100% of its mills by 2016, up from 60% at the end of 2013.⁵²⁶

Commodity: Palm oil

Applicability: Policy applies to 100% of Wilmar's suppliers and mills located in Indonesia and Malaysia; not plans yet to enforce in African plantations.

Registry: Dashboard is being developed to provide transparent information on Wilmar's sustainability progress, release date not yet defined.⁵²⁷

SUBSTANTIVE AND PROCEDURAL REQUIREMENTS

Certified Entity

Environmental Targets

No deforestation:

- No development of HCS forests
- No development of HCV areas
 - Wilmar will continue to implement best practices in the identification and management of HCV areas in accordance with principle 5.2 and 7.3 of the RSPO
 - Wilmar will support the conservation and restoration of important forests, peatland and other ecologically and culturally important lands within the landscape in which it operates
- No burning
- Progressively reduce GHG emissions on existing plantations
 - Wilmar will adopt and implement significant GHG emissions reduction targets and these will be achieved through treating mill effluent to reduce methane emissions, avoiding deforestation, and best management of cultivated peatland, and where applicable through restoration of peatland and peat forest to reduce emissions

No development on peat

- No development on peat regardless of depth
- Best management practices for existing plantations on peat
- Where feasible, explore options for peat restoration by working with expert stakeholders and communities

⁵²⁴ Wilmar International. 5 December 2013. No Deforestation, No Peat, No Exploitation Policy. <http://www.wilmar-international.com/wp-content/uploads/2012/11/No-Deforestation-No-Peat-No-Exploitation-Policy.pdf>

⁵²⁵ Unilever website. Accessed 27 October 2014. Our Targets: Taking Action. <http://www.unilever.com/sustainable-living-2014/reducing-environmental-impact/sustainable-sourcing/sustainable-palm-oil/our-targets/>

⁵²⁶ Wilmar International. 2013. Response to Allegations of Deforestation and Wildlife Destruction. <http://www.wilmar-international.com/wp-content/uploads/2012/11/Response-to-Allegations-of-Deforestation-and-Wildlife-Destruction.pdf>

⁵²⁷ Wilmar International. Wilmar's No Deforestation, No Peat and No Exploitation Policy: Second Update Report: 1 April - 30 June 2014. <http://clients.squareeye.net/uploads/tft/TFT-Wilmar-second-progress-reportFINAL.pdf>

Guidance documents:

- No Deforestation, No Peat, No Exploitation Policy⁵²⁸

Definitions	<p>High Carbon Stock (HCS) forest: primary forests as well as High, Medium, Low Density and Regenerating Forests (defined below). High carbon stock does not apply to plantations or other land in agricultural production.</p> <p>High Conservation Value (HCV): in accordance with RSPO principles & criteria</p> <p>High Density Forest: Remnant forest of advanced secondary forest close to primary condition</p> <p>Medium Density Forest: Remnant forest but more disturbed than High Density Forest</p> <p>Low Density Forest: Appears to be remnant forest but is highly disturbed and recovering with composition of older forest</p> <p>Young Regenerating Forest: Mostly young regrowth forest that have regenerated over 10 years but with occasional patches of older forest</p> <p>Young Scrub: Areas that have been cleared within the last 10 years with some woody regrowth of pioneer species and grass-like ground cover</p> <p>Cleared/Open Land: Very recently-cleared land with mostly grass or crops and few non-crop woody plants.</p> <p>Peatland: any soils containing at least 65% organic matter.⁵²⁹</p>
Timelines	<p>December 2013: No deforestation of HCV areas, HCS forests, or peatland on new areas⁵³⁰</p> <p>December 31, 2015: all suppliers must be fully compliant with all provisions of the No Deforestation No Peat No Exploitation Policy</p>
Geographic Area	Identify HCV and HCS areas.
Baselines	<p>HCV and HCS assessments of new areas after December 2013.</p> <p>Identification of significant GHG emissions through Palm GHG.</p>
MMRV	<p>Monitoring</p> <p>Wilmar recognizes that there are a limited number of competent HCV assessors who can do a credible HCV assessment in many parts of the world. Where there are difficulties finding appropriate assessors, Wilmar will work with the broader stakeholder community to identify and engage appropriate experts.</p> <p>Wilmar will identify significant pollutants and GHG emissions, and plans will be prepared and implemented to reduce or minimize them. It will establish a monitoring system to regularly report progress in reducing these significant pollutants and emissions from plantation and mill operations using appropriate tools, such as the RSPO-endorsed Palm GHG tool or its equivalent.</p> <p>An HCS toolkit is being developed.⁵³¹</p> <p>Measurement</p> <p>GHG emissions will be measured using the RSPO Palm GHG tool or equivalent methodologies.</p> <p>Reporting</p> <p>Wilmar will make its action plan publicly available and will publicly and transparently report ongoing progress with the expectation that they will receive input, advice and feedback from a broad range of multi-stakeholders including governments, NGOs, communities and experts. Wilmar will provide regular public updates on implementation of these policies, and invite stakeholders to provide input. During the first year of implementation, Wilmar committed to updates every quarter and regular updates following that.</p> <p>All investigations and findings will be reported transparently with full public disclosure.</p> <p>Verification</p> <p>Wilmar relies on endorsed commodity VSIs for verification procedures (RSPO, ISCC) as well as internal standards, for which information is not publicly available. For grievance procedures and progress reports on policy implementation, Wilmar works with third-party entity The Forest Trust.⁵³²</p>
Chain of Custody	Endorses RSPO Supply Chain Certification and has interim approval ⁵³³

⁵²⁸ Wilmar International. 5 December 2013. No Deforestation, No Peat, No Exploitation Policy. <http://www.wilmar-international.com/wp-content/uploads/2012/11/No-Deforestation-No-Peat-No-Exploitation-Policy.pdf>

⁵²⁹ See definitions in Wilmar International (2013). Sustainability Report 2013. Transformation Through Engagement. http://media.corporate-ir.net/media_files/IROL/16/164878/Wilmar_Sustainability_Report_2013_Final_high-res.pdf

⁵³⁰ Wilmar International (2013). Clarification on Media's Misreporting about Wilmar's "No Deforestation, No Peat & No Exploitation" Policy. <http://www.wilmar-international.com/wp-content/uploads/2014/03/Clarification-on-Medias-Misreporting-about-Wilmars-No-Deforestation-No-Peat-No-Exploitation-Policy.pdf>

⁵³¹ Wilmar (2014) Progress Report.

⁵³² Wilmar (2015) Grievance Procedure; see also Wilmar: Policies Implementation Progress Reports. Available at <http://www.wilmar-international.com/sustainability/policies/progress-reports-on-policy-implementation/>.

⁵³³ Wilmar: Certification – Supply Chain Certification. Accessed April 2015.

Wilmar has done traceability analyses in Malaysia, Indonesia, Europe, India, Bangladesh, China and Nigeria with an emphasis on identifying details of the mills in order to conduct assessments of the potential risk in relation to forest reserves, peat soils, and deforestation events.

Subsidiary relationships

All provisions of the No Deforestation, No Peat, No Exploitation Policy apply to all Wilmar operations worldwide, including those of its subsidiaries, any refinery, mill or plantation that its owns, manage or invest in, regardless of stake, and all third-party suppliers from whom Wilmar purchases or with whom it has a trading relationship.

Noncompliance

Wilmar will cease to do business with any suppliers who the independent advisors or other stakeholders find are in serious violation of the policy, and who do not take immediate remedial action to correct those violations. However, regardless of remedial action, Wilmar will not do business with serious repeat violators of the policy. Any supplier proven to be burning or developing HCS, HCV or peatlands and who are not demonstrating real progress toward remedial action will be placed on a banned list.
