

**Name scheme: SAN**

Reference sources  
 SAN Guide for HCV and Natural Ecosystems. 2017  
 Rainforest Alliance  
 Sustainable Agriculture Standard For farms and producer groups involved in crop and cattle production, July 2017. v1.2

3	Strong
2	Good
1	Medium
0	Weak / non-compliant / non-existent / missing
n.a.	Not applicable / relevant

Main questions	Subsidiary questions	Scheme requirements	Score
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**Process to ensure protection of Biodiversity**

**Requirements prior to significant intensification or expansion of cultivation, infrastructure or processing;**

<p>Does the standard require the identification of biodiversity values that would be potentially affected by operations, and the assessment of potential impacts on those biodiversity values?</p>		<p>Yes. Identification is required in Critical Criteria 2.1- "High Conservation Value (HCV) areas have not been destroyed from November 1, 2005 onward", and 2.2-"Farms conserve all natural ecosystems and have not destroyed forest or other natural ecosystems in the five-year period prior to the date of initial application for Rainforest Alliance certification or after January 1, 2014, whichever date is earlier". Also, in criteria C 2.5 ( Continuous Improvement criteria) requires that " the farm management and group administrator develop a map that includes natural ecosystems and agroforestry canopy cover or border plantings with estimated vegetation coverage and estimated percentage of native species composition." The Standard does not specify nor recommend a specific methodology to identify natural ecosystems, it only refers to development a map and include natural ecosystems. It also refers to a " RA Guide for conservation of High Conservation Values and natural Ecosystems". The guide provides definitions and description of ecosystems considered as "natural ecosystems". In the same guide, in numeral 4.1 , there is a brief description of a desk evaluation for new candidates or expansion request and the CE must follow the steps:</p> <p>a) Report the geographical location: the geographic location and extent of the certified area will be reported by the candidate organization on the CB's application form:</p> <ol style="list-style-type: none"> <li>1. For individual farms: a polygon of the boundaries of the farm.</li> <li>2. For group administrators: a polygon that delimits the location of all farm's member.</li> </ol> <p>b) Global Forest Watch: to locate the operation in the online application of Global Forest Watch and verify any potential loss of forest cover.</p> <p>c) Global Forest Watch does not indicate loss of forest cover in the location and area</p>	<p style="font-size: 24px; font-weight: bold;">2</p>
	<p>Does the standard reference HCV (High Conservation Values)?</p>	<p>yes, Principle 2 refers to Biodiversity Conservation.</p>	
	<p>Requirement for HCV assessment prior to development?</p>	<p>No, it just mentions competent professional. Reference in the SAN Guide for HCV and Natural Ecosystems. 2017</p>	
	<p>Requirement that HCV assessment comply with HCVRN ALS quality control?</p>	<p>No. The International RA Standard Committee decided in 2013 -At the beginning of the revision process of the latest RA Standard, to adopt the concept of High Conservation Value promoted by the HCV Resource Network, for its wider international recognition; and therefore a RA interpretation would be created for the scope of the concept of HCV areas for farms and producer groups.</p>	
	<p>Does the standard require use of the HCSA (High Carbon Stock Approach) which provides a measure of protection for Biodiversity ?</p>	<p>No</p>	
	<p>Requirement for High Carbon Stock Approach (HCSA) assessment, or combined HCV/HCSA assessment prior to development?</p>	<p>No</p>	
	<p>Requirement that HCSA assessment be undertaken in compliance with the HCV/HCSA Assessment Manual or HCSA toolkit?</p>	<p>No</p>	

<p>Does the standard require other robust forms of assessment prior to development that have a biodiversity protection component e.g. EIA, land use baseline assessments or other studies?</p>	<p>Yes, Critical Criteria 1.4 does require and Environmental and social impact assessment (ESIA) ) for major land conversion/major new farm infrastructure. Conducting an ESIA applies only in the case of substantial new agricultural development (such as new crop plantings or livestock production areas), or the establishment of substantial new or expanded farm infrastructure.</p> <p><i>The 2017 Rainforest Alliance Standard requires that certified operations conduct an ESIA if:</i></p> <p><i>a) It is required by law; or</i></p> <p><i>b) The certified operation meets any of these thresholds:</i></p> <ol style="list-style-type: none"> <li><i>1. Land conversion exceeding 500 hectares;</i></li> <li><i>2. Additional water withdrawal exceeding 500,000 cubic meters per year for irrigation or processing; or</i></li> <li><i>3. Additional industrial wastewater discharge exceeding 10,000 cubic meters per year.</i></li> </ol> <p>Please, also refer to 1.1 in this document for details on how RA refers to identification of natural ecosystems.</p> <p>Even though the Standard makes reference to natural ecosystem, it does not provide a detailed guidance on how to carry out an EIA nor does detailed any other robust forms of assessment.</p> <p>Refer to <a href="https://www.rainforest-alliance.org/business/wp-content/uploads/2017/11/08_esia-guide_en.pdf">https://www.rainforest-alliance.org/business/wp-content/uploads/2017/11/08_esia-guide_en.pdf</a></p>
<p>If other forms of assessment are followed, do they require licensed experts, stakeholder consultation and public reporting?</p>	<p>Yes, the EISA requested in Criteria 1.4 does require stakeholder consultation. Also refer to critical criteria In criteria 4.1, of Free, Prior, Informed and Consent (FPIC), which requires that: " The farm management and group administrator fully document the FPIC process, including maps developed <b>through the participatory process</b> that indicate the location, boundaries, and planned uses of lands and other resources over which communities have legal, customary, or user rights. "</p>
<p>Are these assessments and studies required to assess values and impacts both inside the management unit and beyond its boundaries?</p>	<p>Only inside the Management unit for HCV assessment.</p> <p><b>For ESIA in Step 3 – impact prediction</b></p> <p>The impact prediction step determines which type of impacts to measure in which way.</p> <ol style="list-style-type: none"> <li>a) Within the ESIA scope, impacts of the proposed project shall be estimated using methods such as technical analysis, quantitative modeling, and stakeholder consultations.</li> <li>b) When there are other activities nearby that may affect the overall impact on communities or ecosystems, indirect impacts shall be assessed and cumulative impacts shall be evaluated.</li> <li>c) The significance of each impact shall be characterized through consultations with local stakeholders to the extent they may be affected.</li> </ol>

<p>Does the standard require identification of measures to maintain or minimize and mitigate negative impacts from operations on biodiversity values?</p>	<p>Yes. It is implicit that exsion is not allowed. According to the ESIA Rainforest Alliance Guide for Environmental and Social Impact Assessment, in Step 5 – Environmental and Social Management Plan, a management plan shall be developed to document the specific actions that will be taken to minimize negative impacts and optimize the project’s sustainability performance during both the development and operation phases.</p> <p>The management plan shall be developed once all mitigation measures are defined. This plan shall be incorporated into the farm’s or group administrator’s overall social and environmental management system, as required by Critical Criterion 1.6 of the 2017 Rainforest Alliance standard.</p>
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	<p>Is there a requirement to develop Biodiversity Action Plan, Integrated Conservation and Land Use Plan (ICLUP) or equivalent management and monitoring plans?</p>	<p>Yes. The Standard has a Principle 1 for Effective planning and management system. This planning and management system supports increased farm productivity and efficiency, reduced environmental impact, and increased capacity to adapt to climate change. Increased efficiency in the use of land, water, fertilizers, and pesticides also supports climate change adaptation<sup>12</sup> and mitigation (Climate Smart Agriculture). In criteria 2.6 - If the farm or group of member farms have less than 10% total native vegetation cover or less than 15% total native vegetation cover for farms growing shade-tolerant crops, the farm management and group administrator <b>develop and implement a plan to progressively</b> increase or restore native vegetation. There are also several plan to be implemented that together contribute to manage and monitor biodiversity</p>	
	<p>Does the standard explicitly prohibits or at least mentions "no excision of non productive/ conservation areas" from PO concessions to ensure concession holders do not avoid responsibility for actively managing and protecting HCV areas and to avoid reallocation of excised areas for development by uncertified producers?</p>	<p>Yes. However, it does refer in its critical criteria 2.1, 2.2, 2.3 are specific that HCV have not been destroyed and Farms conserve all natural ecosystems and have not destroyed forest or other natural ecosystems. In the objectives and outcomes of Principle 2, states that it contributes to the protection of biodiversity<sup>1</sup>, natural ecosystems, and their conservation values on and around certified farms. Also the "RA Guide for conservation of High Conservation Values and natural Ecosystems" does explicitly says "The RA Standard for Sustainable Agriculture 2017 (RA Standard 2017), requires that farms and Group administrators protect all natural ecosystems (terrestrial and aquatic). Additionally, it requires certified operations to provide evidence of no-destruction of areas of High Conservation Value (ACV), after November 1, 2005<sup>1</sup>, and natural ecosystems, after January 1, 2014. The Standard does not make any referral to Palm oil concessions.</p>	

<p>Does the standard specify any particular measures to be applied in given circumstances to minimize and mitigate negative impacts from operations on biodiversity values?</p>		<p>Yes. Principle 3 - Natural Resource conservation addressees, for example, mentions that highly hazardous pesticides are prohibited and pesticide risks to people, wildlife, aquatic ecosystems, and pollinators are minimized through targeted risk mitigation practices and they even have a Rainforest Alliance List of Pesticides for Use with Risk Mitigation. <a href="https://www.rainforest-alliance.org/business/wp-content/uploads/2017/11/02_lists-pesticides-management_en.pdf">https://www.rainforest-alliance.org/business/wp-content/uploads/2017/11/02_lists-pesticides-management_en.pdf</a> Also within the same Principle in Criteria, there are several criteria related to minimize negative impacts, related to water quality, soil conservation and management, pesticide management and waste management.</p>	3
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	<p>Does the standard have requirements on minimum areas to "set aside" as conservation areas?</p>	<p>Yes. In Principle Biodiversity Conservation, there is a specific Rainforest Alliance guidance document for the conservation of HCV areas and Natural Ecosystems includes more detailed definitions and instructions for identifying HCV areas. In the Continuous Improvement Area of Native Vegetation, Criteria 2.6 and 2.9 make reference to a minimum percentage of total native vegetation across the farm</p>	
	<p>Does the standard have requirements on buffer zones (e.g. around sensitive sites including nesting &amp; breeding sites, water courses, and steep slopes, etc.)?</p>	<p>Yes, in the section of Terms and definitions there is details on Rainforest Alliance non-application zones between pesticide applied crops and areas of human activity, or aquatic and terrestrial natural ecosystems, Restoration parameters for adjacent zones of aquatic ecosystems, there is also critical criteria 3.1 about steep slopes</p>	

**Requirements after expansion of cultivation or infrastructure - for existing plantations, infrastructure and processing operations;**

<p>Does the standard require regular monitoring and reporting on implementation of plans for biodiversity conservation?</p>		<p>Yes. Principle 1 refers to the 5 steps of planning and management and it does include monitoring and reporting.</p>	3
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	Does the standard include provisions to ensure transparency and stakeholder engagement on monitoring the implementation of plans for biodiversity conservation?	The ESIA process incorporates relevant environmental and social data, as well as stakeholder consultations, in order to identify potential project impacts and to determine whether these impacts can be satisfactorily addressed.
Does the standard require regular monitoring of actual impacts on biodiversity and adaptive management as necessary for improvement?		yes, it does refer to monitoring but more related to the implementation of the Farm Management Plan and the Integrated Pest Management Plan referred to in criteria 2.4, contributing to biodiversity conservation, but it does not make explicit reference to monitoring impacts on biodiversity. Principle 2 - does refer to conservation of Biodiversity conservation includes critical criteria related to HCV, conservation of all natural ecosystems and no degradation of protected areas, continues improvement areas of native vegetation and wildlife management, but it does not make any reference to monitoring or adaptive management. Principle 3- is dedicated to natural resource conservation but the monitoring requirements are included in criteria 3.3 and related to pest management..
	Does the standard include provisions to ensure transparency and stakeholder engagement on biodiversity impact assessment ?	The standard does not mention transparency, but the ESIA does include stakeholder engagement.

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#### Habitat loss and degradation

Is the standard explicit in requiring the protection of all natural ecosystems that are important for species survival?		Yes. There are critical criteria in relation to protection of all natural ecosystems. Critical criteria 2.2, 3.2,. There also specific terms and definitions for specific ecosystems. There is also the document "Rainforest Alliance Certification Rules For Single Farms and Group Administrators. July, 2017.Version 1.2", that rules for a single farm or a group administrator to become or remain certified to the Rainforest Alliance Sustainable Agriculture Standard for Farms and Producer Groups, July 2017 and includes specific sanctions and requirements in the case of ecosystems. There is also a specific definition for natural ecosystem as "ecosystems that resemble – in terms of species composition, structure, and function – those that are or would be found in a given area in the absence of significant human management impacts"
	Does the standard specify which types of ecosystems might be important for species survival? e.g. <i>Primary forest, Biodiverse secondary forests, Wetlands, Riparian zones, Savannah woodlands and natural grasslands, Natural water bodies</i>	Yes. Critical Criteria 1.1 even specifies that annually there should be a farm map indicating ecosystems, including protected areas and total area of ecosystems in farm. Also critical criteria 2.2 specifies that farms conserve all natural ecosystems and have not destroyed forest or other natural ecosystems in the five-year period prior to the date of initial application for Rainforest Alliance certification or after January 1, 2014, whichever date is earlier. Criteria 2.5 also specifies that existing native vegetation outside natural ecosystems is maintained, including: a) Existing agroforestry shade tree cover; b) Existing vegetated zones adjacent to aquatic ecosystems; c) Large native trees, except when these pose hazards to people or infrastructure. The criteria 2.5 has the objective to maintain the current present trees and other native vegetation to contribute to conservation of habitats and their biodiversity and support ecosystem services. The standard does define natural ecosystems as "Ecosystems that resemble – in terms of species composition, structure, and function – those that are or would be found in a given area in the absence of significant human management impacts" and includes aquatic ecosystems, forests and other terrestrial ecosystems.

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Does the standard require that such areas appropriately defined by organization(s) with specialist expertise?	in the section of terms and definitions there is a reference to a brief definition of "competent professional". Then in the document "Rainforest Alliance Certification Rules For Single Farms and Group Administrators. July, 2017. Version 1.2" for section 12.1 of Compensation for unannounced minor destruction of natural ecosystems, there is a brief reference to a "ecological restoration specialist" but there is no definition associated to the term.
Does the standard require a consistent and complete identification of such areas on the ground prior to development of the management unit?	The EISA is developed prior to the development or <b>expansion</b> and it addresses the following topics: <b>biodiversity; High Conservation Value areas</b> ; water quantity and quality; soils; air; waste; employment and labor rights; land and natural resource use rights, tenure and conflicts; climate change; and other possible impacts on local communities.
Does the standard allow for distinguish between different types of secondary forests according to their value for biodiversity protection?	Yes. In the section of terms and definitions there is definition of Forests and other native terrestrial ecosystems. definition of natural ecosystems the standard does make clear that Areas that the following are not considered to qualify; Areas that are managed as long-rotation swidden (shifting cultivation) systems under traditional, indigenous people, community, or smallholder land-use systems (even if they otherwise meet the definitions of natural ecosystems) and fallow lands for soil fertility recovery purposes. Also in forests, include both humid forests (rainforest) and drier forests; lowland, montane, and cloud forests; and forests consisting of any combination of broadleaf, needle leaf, evergreen, and deciduous vegetation. Forests are defined as tree-covered areas that: a) Are not occupied by agriculture or other specific non-forest land uses; and, b) Consist primarily of native plant species; and, c) Contain a vegetation structure that generally resembles that of a natural forest of the same age in the same area; or d) Are classified as High Carbon Stock (HCS) forests according to the HCS approach ( <a href="http://www.highcarbonstock.org">www.highcarbonstock.org</a> ) or, in regions where HCS parameters have not yet been defined, have been regenerating for at least 10 years with minimal human disturbance.
Does the standard preclude the conversion of natural ecosystems that are important for species survival i.e. rare, threatened or endangered ecosystems to palm oil production?	it does mention no conversion of forests and other natural ecosystems in the past five years or after January 2014 but it does not provide details for special survival. Please refer the answers above where the definition of natural ecosystems is detailed.
What historic cut-off dates apply for conversion of such ecosystems to be eligible for certification?	There are two cut-off dates in two critical criteria: 2.1 High Conservation Value (HCV) areas have not been destroyed from November 1, 2005 onward. 2.2 Farms conserve all natural ecosystems and have not destroyed forest or other natural ecosystems in the five-year period prior to the date of initial application for Rainforest Alliance certification or after January 1, 2014, whichever date is earlier.
Does the standard require protection of ecosystems that are identified as rare, threatened or endangered, but have not necessarily been recognised as important for the survival of particular species?	Yes. Principle 2- Biodiversity conservation aims to the protection of biodiversity, natural ecosystems, and their conservation values on and around certified farms. Farms protect on-farm natural ecosystems and do not contribute to deforestation and Farms also maintain and increase the amount and diversity of native vegetation to help diversify production systems, conserve native habitats and their biodiversity, and support critical ecosystem services such as pollination, pest control, and water purification.

Does the standard require protection of ecosystems providing services critical for off site biodiversity conservation?	Principle 2- Biodiversity conservation does make a clear reference to the objective that farms also maintain and increase the amount and diversity of native vegetation to help diversify production systems, conserve native habitats and their biodiversity, and support critical ecosystem services such as pollination, pest control, and water purification.
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Does the standard exclude any palm oil development in protected areas?		Criteria 2.3 requires No negative effects on protected areas - Production activities do not degrade any protected area.	3
	How are protected areas defined in the standard?	Protected area: An area of land declared or designated by local authorities as protected because of its recognized natural, ecological and/or cultural values to achieve the long-term conservation of nature with associated ecosystem assets and cultural values. Examples include national parks, wildlife refuges, biologic, forestry or private reserves, and areas within UNESCO Biosphere reserves or World Heritage Sites.	
	Any distinction between areas protected under national legislation and those covered by an international designation?	It does not make any reference to this aspect.	
Does the standard require the maintenance of buffer zones around protected areas?		No, there is not explicit reference to buffer zones in the standard, whether in relation to protected areas or otherwise. It only makes reference to protected areas, in general	0
	Is the requirement limited to buffer zones around areas protected under national legislation?	It does not specify	
Does the standard require that representative areas of native ecosystems in the management unit be actively conserved?		In the Theory of Change it does address, in general, the protection of native ecosystems but does not offer details. It does refer to natural ecosystems. In the description of forest, Forests are defined as tree-covered areas that consist primarily of <b>native plant species</b> . The definition of native is not explicit in the standard.	1
Does the standard incorporate P&Cs that provide positive encouragement to direct socio-economic pressure for PO expansion within a given landscape towards degraded lands that are not critical for species survival?		No, it does not necessarily stimulate expansion to degraded lands.	0

Does the standard require protection of corridors of natural vegetation where these are critical for connectivity between habitats, to avoid fragmentation of ecosystems (e.g. large landscape-level ecosystems/HCV 2 areas)?		yes. It is part of Principle 2- Biodiversity conservation in the continuous improvement criteria 2.13 referring to maintenance or establishment of wildlife corridors to facilitate wildlife movement while minimizing conflict; however, it does not refer to a contribution to avoid fragmentation of ecosystems. It may read implicitly but is not explicit, not even in the RA Guide.	2
	Does the standard specify or recognize particular methodologies to evaluate ecosystem connectivity and identify critical corridors of natural vegetation?	No, it does not, however it refers to the HCV methodology.	

Direct mortality (of RTE species)

Does the standard include explicit requirements for the protection of rare, threatened or endangered species?

Does the standard require that particular threats considered and mitigated in palm oil production, i.e.

The standard does not make any specific reference to palm oil production. In the standard, in the terms and definitions, there is a reference to "Natural ecosystems may be conserved through any combination of strict preservation, restoration or sustainable management. A natural ecosystem is conserved if it has been protected against direct or indirect human degradation." And makes reference to "Economic activities that do not significantly alter the long-term composition, structure, or function of natural ecosystems, including harvest of non-endangered species or their parts in a manner and quantity that does not exceed the regenerative capacity of such species". the standard also defines: "**Endangered:** Species of plants, animals, and fungi designated as threatened or endangered by national laws or classification systems or listed as endangered or critically endangered by the IUCN Red List of Threatened Species™ and/or listed in Appendices I, II, or III of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)."

Over exploitation		The standard does make reference to "Rainforest Alliance canopy cover and species diversity parameters: Conformance with minimum canopy cover (% total aerial coverage of tree canopies excluding crop trees) is based on estimations during the time of the year when tree foliage is most dense. And it establishes minimum regional canopy cover and tree species diversity parameters per crop, but palm oil is not included. Also refers to "Rainforest Alliance restoration parameters" for adjacent zones of aquatic ecosystems. There are other references in criteria 2.6 regarding the percentage of total native vegetation, but is not referred to palm oil.	3
	Does the standard require that measures be taken against any illegal or inappropriate logging, hunting, fishing or collecting in the management unit?	Yes. It does make reference to the term: " <i>Destruction (also Destroyed)</i> " and "Large-scale logging or other vegetation harvest that permanently, or over the long term, reduces the ecosystem's aboveground biomass by 75% or more." Criteria 2.4 also refers to: Animals that are endangered or protected are never hunted or killed. Animals are not hunted on the farm, with the following exceptions: a) Smallholders may hunt non-endangered animals for non-commercial use only; and b) Vertebrate pest wildlife may be hunted only in accordance with the farm's integrated pest management (IPM) plan, and only as a measure of last resort. Control of rodents follows Rainforest Alliance rodenticide risk management requirements. c) Explosives or toxic substances are never used for hunting, fishing, or control of wildlife pests.	

<p>Does the standard cover the use of natural resources at a renewable rate? This could be relevant where there is;</p> <ul style="list-style-type: none"> <li>- Community use of biodiversity reserves</li> <li>- Current irrigated production of palm oil</li> <li>- Potential future climate change pressures driving producers to consider use of irrigation</li> </ul>	<p>In principal 3:Natural Resource Conservation, there are specific criteria about irrigation under water conservation. Also, under the "Rainforest Alliance ESIA parameters", there is the parameter that require an independent ESIA if exceeded: when "new water withdrawal of 500,000 m3/year for irrigation or processing."</p>
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Pollution

	<p>The Standard has plenty of references in criteria for use of pesticides and aerial application zone limits. Please refer to document: Rainforest Alliance Lists for Pesticide Management. Lists of Prohibited and Risk Mitigation Use Pesticides. Lists for Pesticide Management" July 2017. Version 1.3</p> <p>Rainforest Alliance Prohibited Pesticides are classified as Highly Hazardous Pesticides according to the definition of the FAO/WHO Panel of Experts on Pesticide Management (JMPM) consisting of 152 active 4 ingredients. The JMPM, in their 2nd session in October 2008, recommended that highly hazardous pesticides should be defined as having one or more of the following characteristics:</p> <ul style="list-style-type: none"> <li>a) Pesticide formulations that meet the criteria of classes Ia (extremely hazardous) or Ib (highly hazardous) of the WHO Recommended Classification of Pesticides by Hazard (indicated in the WHO Ia and WHO Ib columns);</li> <li>b) Pesticide active ingredients and their formulations that meet the criteria of carcinogenicity Categories 1A and 1B of the Globally Harmonized System on Classification and Labelling of Chemicals (GHS1) (indicated in the GHS Cancer 1A 1B column);</li> <li>c) Pesticide active ingredients and their formulations that meet the criteria of mutagenicity Categories 1A and 1B of the Globally Harmonized System on Classification and Labelling of Chemicals (GHS) (indicated in the GHS muta 1A 1B column);</li> <li>d) Pesticide active ingredients and their formulations that meet the criteria of reproductive toxicity Categories 1A and 1B of the Globally Harmonized System on Classification and Labelling of Chemicals (indicated in the GHS repro 1A 1B column);</li> <li>e) Pesticide active ingredients listed by the Stockholm Convention in its Annexes A and B, and those meeting all the criteria in paragraph 1 of Annex D of the Convention (indicated in the Stockholm Convention column);</li> <li>f) Pesticide active ingredients and formulations listed by the Rotterdam Convention in its Annex III (indicated in the Rotterdam Convention column);</li> <li>g) Pesticides listed under the Montreal Protocol (indicated in the Montreal Protocol column);</li> <li>h) Pesticide active ingredients and formulations that have shown a high incidence of <del>severe or irreversible adverse effects on human health or the environment</del></li> </ul>
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<p>Does the standard provide sufficient controls to prevent pollution from effluent and emissions, through control/minimisation of agro-chemical and pesticide use or requirements for maintenance of buffer zones?</p>	<p>Yes. There is specific criteria dealing with control to prevent pollution: 3.3, 3.4., 3.5, 3.27 referring to use of pesticides in detail, and 3.38 that also refers to "Rainforest Alliance parameters for vegetative barriers or Rainforest Alliance non-application zones". There is another document being referred in these criteria: "Rainforest Alliance List of Prohibited Pesticides"</p>
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Invasive species

	<p>Yes. The standard requires that natural ecosystems are not degraded, and in the definition of degradation it includes Intentional introduction of invasive plant species. It does allow that unintentional colonization by invasive species should not be considered disturbance to a natural ecosystem. The standard indicates that certified farms should minimize the spread of invasive species, and 2.14 requires that 'Efforts are implemented to contain and reduce invasive plants already present on the farm.</p> <p>There is ample reference to invasive species. In the section of terms and definition that if there is Intentional introduction of invasive plant species, it contributes to Degradation of a natural ecosystem or protected area, resulting in negative impacts. Also, the definition of "Invasive species: A plant or vertebrate species or subspecies that is not native to a given place, and whose presence or introduction in that place causes or is likely to cause economic harm, environmental harm, or harm to human health. For the purpose of this standard, invasive species are the ones referenced by IUCN/SSC Invasive Species Specialist Group (ISSG) as 100 of the World's Worst Invasive Alien Species. (<a href="http://www.issg.org/worst100_species.html">http://www.issg.org/worst100_species.html</a>)</p>
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Does the standard control for the introduction or use of alien species in the management unit that might adversely affect habitats and bioregions?	Yes. There is specific criteria to control introduction of alien species. In Principle 2, in the Continuous Improvement Area: Wildlife Management there is criteria 2.12 and 2.14
In this regard, does the standard require assessment of the risk that bio-control agents may negatively impact rare or endangered species?	No, it does not make reference.
Does the standard have requirements on the use of genetically modified organisms (GMO)?	yes. It does refer to the definition of Genetically Modified Organism (GMO): An organism whose genetic material has been altered using genetic engineering techniques, i.e., the direct manipulation of an organism's genome using biotechnology or genome-editing techniques. Criteria 3.6 addresses that "Crops covered by the Rainforest Alliance certificate scope do not consist of genetically modified organisms (GMOs) and are not repackaged or processed with GMO products."

Anthropogenic introduced disease	No, it does not make reference to Anthropogenic introduced disease	0
Does the standard require bio-security measures to control the risk that pests and diseases introduced as a result of palm oil operations negatively impact RTE species?	The standard only makes reference to the development and implementation of integrated pest management (IPM) plan, in criteria 3.3. The same criteria makes reference to "Pests are managed using biological controls or other non-chemical methods where feasible. When pesticides are used, preference is given to non-restricted low toxicity pesticides, and pesticides are applied only to the parts of the crop affected by pests." It does not refer to the impact of RTE species nor palm oil operations.	
In this regard, does the standard require assessment of the risk that bio-control agents may negatively impact RTE species?	In the document "Rainforest Alliance Lists for Pesticide Management. Lists of Prohibited and Risk Mitigation Use Pesticides. July, 2017. Version 1.3, there is the following paragraph: The 2017 Rainforest Alliance List of Pesticides for Use with Risk Mitigation specifies risk associated with, and requirements to mitigate the risks of 166 pesticides (listed in the table below) to human workers/bystanders, aquatic life, wildlife and pollinators.	

Fire	No. Criteria 3.9 for Soil conservation and management addresses : Fire may be used only for pest control, only as prescribed by the IPM plan and only if it creates less negative environmental impact than other pest control measures.	2
Does the standard control for the use of fire in the management unit?	Yes. Criteria 3.9 says: To protect nearby natural ecosystems, infrastructure, and communities, fire is applied only by trained workers with fire suppression tools, personal protective equipment, and access to water for firefighting, and only when wind speed and direction create minimal risk of uncontrolled burning. If fire is used, fire use areas and history are indicated on updated farm maps.	
Does the standard require absolute exclusion of fire in the management unit, or does it impose limitations on its use as a management tool?	See above paragraph.	
Does the standard require that a certificate holder mitigate the risk of wildfire in the wider landscape?	No, the Standard does not refer to this aspect.	

Does the standard reference HCS (High Carbon Stock) forest?		In the terms and definition section it does reference to HCS in the definition of Forests, letter d) Are classified as High Carbon Stock (HCS) forests according to the HCS approach ( <a href="http://www.highcarbonstock.org">www.highcarbonstock.org</a> ) or, in regions where HCS parameters have not yet been defined, have been regenerating for at least 10 years with minimal human disturbance.	0
	Requirement for High Carbon Stock Approach (HCSA) assessment, or combined HCV/HCSA assessment prior to development? <i>Ref 1.1</i>	No	
	Requirement that HCSA assessment be undertaken in compliance with the HCV/HCSA Assessment Manual or HCSA toolkit? <i>Ref 1.1</i>	No	
	Does the standard require any other robust methodology for the assessment of existing carbon stocks?	No	
Does the standard require the protection of significant carbon stocks above ground?		The Standard does mention specifically the term carbon stocks. It mentions the term in The Theory of Change, "the Standard seeks to reduce the greenhouse gas emissions of agriculture associated with the use of energy, fertilizers, pesticides, and methane emissions – while maintaining or enhancing carbon stocks in soils, forests, and other on-farm vegetation." So, one could implied that the Standard and the different Critical Criteria and Continuous improvement criteria does contribute to the protection of carbon stocks above ground.	1
	Does the standard define what constitutes a 'significant' carbon stock?	No	
	Does the standard recognize and distinguish between above ground and below ground carbon stock?	No	
Does the standard preclude the conversion of peatland to palm oil production?		The definition of natural ecosystems includes peatlands and therefore due to requirement of conservation of all natural ecosystems, peatlands would be protected.	2
	Does the clearly standard define peat soils?	No. It mentions peatland as a type of "Other native terrestrial ecosystems"	
Does the standard require measures to limit CO2 emissions from peatlands already planted with oil palm?		It does not mention this aspect	0
	Does the standard require adherence to best management practices to limit drying of peat in the current rotation?	No	
	Does the standard require a time-bound plan to retire PO on peat?	no	

Does the standard require monitoring and control of GHG emissions from land use change?		No. The requirements under Principle 3 to continuously improve energy and GHG emissions clearly implies there should be ongoing monitoring, but there is not any explicit requirement.	0
	Does the standard explicitly require measurements of green house gas emissions and calculation of net GHG balance at management unit level as a result of land use change when palm oil plantations are established?	No	
Does the standard require monitoring and control of GHG emissions from production operations after planting?		Principle 3 Natural resource conservation, in the Continuous Improvement Area: Energy and Greenhouse Gas Emissions-	1
	Does the standard explicitly require measurements of green house gas emissions and calculation of net GHG balance at management unit level for ongoing production in existing plantations, taking into account any sequestration by woody vegetation and soils within the management unit?	It does require measurement of GHG, but does not referred explicitly how to calculate net GHG balance. It does refer to it does not refer to palm oil	
	Does the standard anticipate GHG accounting to take account of both - CO2, including recycling of woody carbon? - Methane emissions from processing/waste disposal?	No	
	Does the standard set out a hierarchy of measures to mitigate GHG emissions from existing PO plantations?	No	
	Does the standard allow for the use of financial instruments to offset residual GHG emissions from plantation operations (beyond any measures to mitigate emissions through good management practice)?	No	
Does the standard allow for linking of emissions reductions to national targets?		No	0

Does the standard require measures to mitigate the risk of GHG emissions as a result of fire? *Ref 4.1e*

Does the standard include requirements to comply with relevant international conventions? (e.g. RAMSAR, CITES)		It only makes reference to compliance to local law and it mentions CITES in the definition of <b>Endangered</b> : Species of plants, animals, and fungi designated as threatened or endangered by national laws or classification systems or listed as endangered or critically endangered by the IUCN Red List of Threatened Species™ and/or listed in Appendices I, II, or III of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).	0
Does the standard list international conventions considered relevant?	Only mentions CITES		
If so, is this list comprehensive?	NA		
Does it include regional as well as global agreements and treaties?	No		

Does the standard explicitly require compliance with national legislation on protection of biodiversity (where these requirements are more rigorous or restrictive than those of the voluntary standard)?		Yes. It Criteria 1.6 mentions to comply with applicable laws.	3
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Does the standard require respect for local and customary laws providing for protection of biodiversity (where these requirements are more rigorous or restrictive than those of the voluntary standard)?		No. The Standard does not have a specific requirement for respect of local and customary law protecting biodiversity.	0
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### Restoration

Does the standard require restoration of natural habitats where their past conversion for palm oil production contravenes the requirements of the standard and/or national legislation?		Yes. It refers to restoration of natural habitats but it does not make referral to palm oil. See criteria 2.6 for details.	3
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Does the standard require on-site restoration of natural habitats?	<p>Yes. Criteria 2.6 refers to: The farm management and group administrator develop a map that includes natural ecosystems and agroforestry canopy cover or border plantings with estimated vegetation coverage and estimated percentage of native species composition. If the farm or group of member farms have less than 10% total native vegetation cover or less than 15% total native vegetation cover for farms growing shade-tolerant crops, the farm management and group administrator develop and implement a plan to progressively increase or restore native vegetation, including:</p> <ul style="list-style-type: none"> <li>a) Restoration of zones adjacent to aquatic ecosystems;</li> <li>b) Restoration of farmed areas of marginal productivity to natural ecosystem; or</li> <li>c) Incorporation of native trees as border plantings and barriers around housing and infrastructure, live fences, shade trees, and permanent agroforestry systems.</li> </ul> <p><b>The definition of Restoration:</b> Assisting the recovery of natural ecosystems that previously experienced destruction or degradation. Restoration may include activities such as planting of native species, removal of non-native species, and active or passive facilitation of natural ecological succession.</p> <p>In the document " Rainforest Alliance Certification Rules For Single Farms and Group Administrators. July, 2017. Version 1.2</p>
Does the standard set a cut-off date after which any critical habitat destroyed by palm oil planting must be restored?	<p>There are two cut-off dates in two critical criteria:</p> <p>2.1 High Conservation Value (HCV) areas have not been destroyed from November 1, 2005 onward.</p> <p>2.2 Farms conserve all natural ecosystems and have not destroyed forest or other natural ecosystems in the five-year period prior to the date of initial application for Rainforest Alliance certification or after January 1, 2014, whichever date is earlier.</p> <p>As far as restoration is concerned, 2.6 talks about restoration with clear indications of progressive plan to increase native vegetation.2.7 and 2.8 refer to the clearly defined restoration parameters in the definitions section. All three criteria have to be complied with in the first phase of certification.</p>
Does the standard set a deadline for undertaking restoration of critical habitat destroyed after the cut-off date?	no
Does the standard have requirements on restoration of water bodies to a natural function?	<p>Yes, Criteria 2.7 refers restoration of aquatic ecosystems and 2.8 refers to "Rainforest Alliance restoration parameters are implemented for all aquatic ecosystems".</p> <p>Rainforest Alliance restoration parameters: Restoration parameters for adjacent zones of aquatic ecosystems are:</p> <ul style="list-style-type: none"> <li>1) Remnant or restored vegetation is primarily native, e.g. agroforestry systems that comply with Rainforest Alliance canopy cover and species diversity parameters;</li> <li>2) Minimum widths of restored areas adjacent to aquatic ecosystems (water course width is defined as the width of the normal flow during the rainy season but not during flood conditions) are: <ul style="list-style-type: none"> <li>a) 5 m horizontal width along both sides of water courses between 1 and 5 meters wide;</li> <li>b) 8 m horizontal width along both sides of water courses 5-10 meters wide, and around springs, wetlands, and other water bodies;</li> <li>c) 15 m horizontal width along both sides of rivers wider than 10 m.</li> </ul> </li> </ul>
Does the standard allow for off-site restoration or biodiversity off-set as an alternative to on-site restoration?	No
Does the standard provide an option for payment of financial compensation as a substitute for restoration of natural habitats?	No

Does the standard treat payment of financial compensation as a complement to on-site restoration, to remediate for damage to biodiversity where remediation through ecosystem restoration is not technically feasible?	No
<u>OR</u> Does the standard allow developers to use payment of financial compensation as an alternative to on site restoration, which might reduce or dilute the strength of the standard with respect to this criterion?	No

Does the standard require restoration of peatlands, natural water bodies or riparian vegetation damaged as a result of palm oil production in contravention of the requirements of the standard and/or national legislation?		The standard requires Rainforest Alliance restoration parameters: Restoration parameters for adjacent zones of aquatic ecosystems are: 1) Remnant or restored vegetation is primarily native, e.g. agroforestry systems that comply with Rainforest Alliance canopy cover and species diversity parameters; 2) Minimum widths of restored areas adjacent to aquatic ecosystems (water course width is defined as the width of the normal flow during the rainy season but not during flood conditions) are: a) 5 m horizontal width along both sides of water courses between 1 and 5 meters wide; b) 8 m horizontal width along both sides of water courses 5-10 meters wide, and around springs, wetlands, and other water bodies; c) 15 m horizontal width along both sides of rivers wider than 10 m. It does not refer to palm oil,	3
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Community engagement for biodiversity protection

Does the standard include requirements for raising the awareness of workers, smallholders and local communities on biodiversity protection?		Criterion 1.8 mentions that farm management and group administrator develop and implement a training plan to train workers on the competencies required to carry out their work and to comply with the standard, which would also include conservation. It is however not explicit on the topic.	2
Does the standard make special provision for disadvantaged small producers, enabling them to overcome barriers to certification and participate in certified supply chains, thereby engendering their support for biodiversity protection?		Yes. SH are treated different than medium- large farms. Fewer criteria are applicable to smallholders. Criteria not applicable to smallholders are indicated as NOT APPLICABLE TO SMALLHOLDERS in the criterion text. Standard criteria and performance system is designed to enhance the group administrator responsibility and support for the SHs.	3
Does the standard require palm oil project developers to engage with local communities on biodiversity protection?		It only refers in criteria 1.4 for EISA and 4.19 addressing Legitimate right to use the land is demonstrated by ownership, leasehold, or other legal documents or by documentation of traditional or community use rights. And 4.20 for activities diminishing the land or resource use rights or collective interests of communities are conducted only after having received the communities' free, prior and informed consent (FPIC).	1
	Does the standard recognise/endorse local agreements/compacts that secure community level support for biodiversity protection in return for;	no	
	a. Technical assistance to develop alternative livelihoods that relieve pressure on RTE species and ecosystems?	No	

b. Securing community land tenure?	Criteria 4.19 addressing Legitimate right to use the land is demonstrated by ownership, leasehold, or other legal documents or by documentation of traditional or community use rights
c. Direct Payments for Ecological Services?	No
Does the standard require monitoring and evaluation of such agreements/compacts to facilitate their continuous improvement and scale up?	No

Does the standard include a requirement to identify and manage potential conflicts between social/community needs/livelihoods and biodiversity conservation?		No	0
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