



Type of document: RSB Indicators

Status: Approved for Certification

Date: [01-20-2011]

Version: [Version 2.1]

## **Indicators of Compliance For the RSB Principles & Criteria**

**RSB reference code: [RSB-IND-01-001 (Version 2.0)]**

Published by the Roundtable on Sustainable Biomaterials (RSB). This publication or any part thereof may only be reproduced with the written permission of RSB, the publisher. Any reproduction in full or in part of this publication must mention the title and reference code and credit the above-mentioned publisher as the copyright owner.

Contact details: RSB - Roundtable on Sustainable Biomaterials  
International Environment House 2  
7 Chemin de Balexert  
CH – 1219 Chatelaine (Geneva)  
Switzerland  
web: <http://www.rsb.org>  
email: [info@rsb.org](mailto:info@rsb.org)

# Compliance Indicators to the RSB Principles & Criteria

20 Jan 2011

## Contents

Principle 1: Legality .....	3
Principle 2: Planning, Monitoring and Continuous Improvement.....	4
Principle 3: Greenhouse Gases .....	14
Principle 4: Human and Labor Rights.....	18
Principle 5: Rural and Local Development.....	32
Principle 6: Food Security .....	36
Principle 7: Conservation .....	40
Principle 8: Soil .....	52
Principle 9: Water .....	55
Principle 10: Air.....	65
Principle 11: Technology .....	68
Principle 12: Land Rights .....	78

## Principle 1: Legality

RSB Principle		
Principle 1. Biofuel operations shall follow all applicable laws and regulations.		
RSB Criterion	Scope and Requirements	Indicators
Criterion 1a. Biofuel operations shall comply with all applicable laws and regulations of the country in which the operations occur and with relevant international laws and agreements.	Operators who must comply: Feedstock Producer, Feedstock Processor and Biofuel Producer.	<p>1.a.i.1. The participating operator provides objective evidence demonstrating compliance with the applicable national laws and regulations.</p> <p>1.a.i.2. The participating operator provides objective evidence demonstrating compliance with the applicable international laws and agreements that apply to biomass/biofuels operations with regards to this standard.</p> <p>1.a.i.3. The participating operator provides objective evidence demonstrating that all applicable licenses, permits and other legal requirements are valid.</p>

## Principle 2: Planning, Monitoring and Continuous Improvement

### RSB Principle

Principle 2: Sustainable biofuel operations shall be planned, implemented, and continuously improved through an open, transparent, and consultative impact assessment and management process and an economic viability analysis.

RSB Criterion	Scope and Requirements	Indicators
<p>Criterion 2a. Biofuel operations shall undertake an impact assessment process to assess impacts and risks and ensure sustainability through the development of effective and efficient implementation, mitigation, monitoring and evaluation</p>	<p>Operators who must comply: Feedstock Producer, Feedstock Processor and Biofuel Producer.</p> <p>Minimum requirements</p> <ul style="list-style-type: none"> <li>▪ Where an impact assessment is required by national, regional, or local laws, the process shall be integrated with the RSB impact assessment process to avoid duplication of efforts, but the higher and more</li> </ul>	<p>2.a.i.1. The participating operator provides objective evidence determining the extent of the environmental and social impact assessment required for her/his/its operation(s) (i.e. whether the outcomes need to be equivalent with an Environmental and Social Impact Assessment (ESIA), a Rapid Environmental and Social Assessment (RESA) or whether neither of these studies or associated specialist studies are required. The determination conducted by the biomass/biofuels operation(s) of the participating operator followed the Screening Guidelines (RSB-GUI-01-002-02).</p> <p>2.a.i.2. The participating operator provides objective evidence</p>

plans.	<p>comprehensive standard shall be applied.</p> <ul style="list-style-type: none"> <li>▪ A screening exercise shall be required for all new and existing operations and extensions to operations of all sizes to determine whether an Environmental and Social Impact Assessment (ESIA) or a Rapid Environmental and Social Assessment (RESA) is required. The screening exercise shall be done in accordance with the Screening Guidelines (RSB-GUI-01-002-02).</li> <li>▪ Participating operators shall conduct the RESA or ESIA, if required, in accordance with the RSB Impact Assessment Guidelines (RSB-GUI-01-002-01), the RESA Guidelines (RSB-GUI-01-002-04) and the ESIA Guidelines (RSB-GUI-01-002-03) respectively, as determined by the scale and intensity of the operations.</li> <li>▪ The ESIA, if required as determined through</li> </ul>	<p>demonstrating that baseline surveys have been completed resulting in outcomes equivalent to those in the RSB guidelines including at minimum:</p> <ul style="list-style-type: none"> <li>➤ land use type as of 1 January 2009 used for the biomass/biofuels operation(s) of the participating operator;</li> <li>➤ current land use type used for the biomass/biofuels operation(s) of the participating operator;</li> <li>➤ physical, chemical and biological soil properties of the biomass/biofuels operation(s) of the participating operator</li> <li>➤ carbon in soil used for the biomass/biofuels operation(s) of the participating operator;</li> <li>➤ (in regions of poverty – cross check with 5a.i.1) the socio economic status of directly affected local stakeholders of the biomass/biofuels operation (s) which have been disaggregated according to demographics of age, gender, income status, employment, health and disability;</li> <li>➤ (in food insecure regions – cross check with 6a.i.1) food availability including access, stability and utilization within the locality of and surrounding the biomass/biofuels operation(s) of</li> </ul>
--------	---	---

	<p>the screening exercise, shall be carried out using independent and qualified professionals.</p> <ul style="list-style-type: none"> <li>▪ Where biofuel operations will have significant social impacts, as measured during the screening exercise, a social impact assessment process shall be carried out using local experts to ensure that local customs, languages, practices and indigenous knowledge are respected and utilized.</li> <li>▪ The Environmental and Social Management Plan (ESMP), in accordance with the RSB ESMP Guidelines (RSB-GUI-01-002-05), shall be required for all operations and shall ensure compliance with all RSB Principles &amp; Criteria. Where there are progress requirements, they shall be detailed.</li> <li>▪ Where specifically stated in a criterion, the impact assessment process shall extend</li> </ul>	<p>the participating operator;</p> <ul style="list-style-type: none"> <li>➤ conservation values in and surrounding the biomass/biofuels operation(s) of the participating operator;</li> <li>➤ ecosystem services in and surrounding the biomass/biofuels operation(s) of the participating operator;</li> <li>➤ air quality without/before biomass/biofuels production in the areas of the biomass/biofuels operation(s) of the participating operator;</li> <li>➤ Physical, chemical and biological properties of the water resources within and surrounding the biomass/biofuels operation(s) of the participating operator.</li> </ul> <p>2.a.i.3. The participating operator provides objective evidence demonstrating that an Environmental and Social Management Plan (ESMP) that integrates all requirements of the RSB standard and that demonstrates how biomass/biofuels operation(s) will mitigate all risks identified through the ESIA/RESA has been compiled and is being implemented.</p> <p>2.a.i.4. The participating operator provides objective evidence demonstrating that all reports, plans, and activities responding to the impact assessment process as well as all assessments and surveys</p>
--	--	---

	<p>beyond the scope of the immediate operational area, for instance for food security, water management and use, ecosystem impacts, biodiversity and conservation in accordance with the RSB Impact Assessment Guidelines (RSB-GUI-01-002-01).</p> <ul style="list-style-type: none"> <li>▪ Multiple operators applying for certification as one single Participating Operator, as defined in the Standard for Participating Operators (RSB-STD-30-001), shall conduct the RSB impact assessment and management processes jointly.</li> </ul>	<p>thereto comply with all legal requirements.</p> <p>2.a.i.5. The participating operator provides objective evidence demonstrating that ongoing monitoring of effectiveness of the execution of the ESMP, and that the results of this ongoing monitoring are used to improve the ESMP and the overall performance of the biomass/biofuels operation(s).</p> <p><b>If a RESA or an ESIA is required:</b></p> <p>2.a.i.6. The participating operator provides objective evidence demonstrating that the environmental and social impact assessment (ESIA) as applicable to her/his/its biomass/biofuels operation(s):</p> <ul style="list-style-type: none"> <li>➤ covers all social, environmental, economic and other technical aspects of her/his/its biomass/biofuels operations;</li> <li>➤ identifies all actual and possible future impacts of her/his/its biomass/biofuels operation(s);</li> <li>➤ identifies all actual and possible future risks associated with her/his/its biomass/biofuels operation(s);</li> <li>➤ involved social, environmental, economic and other technical experts as well as qualified (and where necessary independent)</li> </ul>
--	---	--

		<p>professionals as required;</p> <p>➤ involved engagement, consultation and other interaction with affected stakeholders as required.</p>
RSB Criterion	Scope and Requirements	Indicators
<p>Criterion 2b. Free, Prior &amp; Informed Consent (FPIC) shall form the basis for the process to be followed during all stakeholder consultation, which shall be gender sensitive and result in consensus-driven negotiated agreements.</p>	<p>Operators who must comply: Feedstock Producer, Feedstock Processor and Biofuel Producer.</p> <p>Minimum requirements</p> <ul style="list-style-type: none"> <li>While FPIC provides the process conditions for stakeholder engagement and negotiated agreements, consensus shall be the decision-making tool applied in all cases and carried out in accordance with the RSB consensus building toolkit in the Impact Assessment Guidelines (RSB-GUI-01-002-01).</li> </ul>	<p>2.b.i.1. The participating operator provides objective evidence demonstrating that the stakeholders affected by her/his/its biomass/biofuels operations have been identified.</p> <p>2.b.i.2. The participating operator provides objective evidence demonstrating that the stakeholders identified as per indicator 2.b.i.1. have been engaged and consulted and that consensus with these stakeholder has been reached where required.</p> <p>2.b.i.3. The participating operator provides objective evidence that stakeholder engagement and consultation processes, including the numbers of stakeholder meetings and attending participants along with comments, recommendations and consensus agreements resulting from these meetings have been recorded.</p>



	<ul style="list-style-type: none"> <li>▪ The ESIA facilitators shall invite all locally-affected stakeholders, local leaders, representatives of community and indigenous peoples groups and all relevant stakeholders to participate in the consultative process.</li> <li>▪ The scope of engagement shall be determined by the scale of the operations as set out in the RSB Impact Assessment Guidelines (RSB-GUI-01-002-01).</li> <li>▪ Relevant government authorities shall be included in the stakeholder process to ensure efficient streamlining of the process with legal requirements.</li> <li>▪ Those responsible for undertaking the ESIA or RESA shall undertake and document a stakeholder analysis in accordance with the RSB Impact Assessment Guidelines (RSB-GUI-01-002-01).</li> <li>▪ Participatory methodologies described in the</li> </ul>	<p>2.b.i.4. The participating operator provides objective evidence demonstrating that:</p> <ul style="list-style-type: none"> <li>➤ affected stakeholders have been invited to participate in engagement and consultation processes and if required in decision-making processes;</li> <li>➤ every possible effort was made to ensure that meetings were convenient for stakeholders to attend;</li> <li>➤ the methods (e.g. information sharing, group meetings, interviews, questionnaires, workshops, written materials, languages including local dialects, etc.) used to engage and consult with, and if required reach consensus with affected stakeholders were suitable to achieve the intended engagement and consultation processes and, if required, involvement in decision-making processes;</li> <li>➤ participation of affected stakeholders in engagement, consultation, and if required involvement in decision-making is based on free, prior informed consent by all involved;</li> <li>➤ information relevant for stakeholder engagement, consultation and stakeholder involvement in decision-making was available and accessible to affected stakeholders;</li> </ul>
--	---	---

	<p>RSB Impact Assessment Guidelines (RSB-GUI-01-002-01) shall be used to ensure meaningful stakeholder engagement. Special attention shall be made to ensure that women, youth, indigenous and vulnerable people can participate meaningfully in meetings and negotiations. Where the need is identified by the ESIA facilitator, there shall be informal workshops to build local understanding in the community of the processes that may impact them directly to aid meaningful engagement.</p> <ul style="list-style-type: none"> <li>▪ Documentation necessary to inform stakeholder positions shall be made freely available to stakeholders in a timely, open, transparent and accessible manner through distribution channels appropriate to the local conditions in accordance with the RSB Impact Assessment Guidelines (RSB-GUI-01-002-01).</li> </ul>	<ul style="list-style-type: none"> <li>➤ information for stakeholder engagement, consultation and involvement in decision-making provided in an open and transparent, timely way, prior to meetings and in a format (e.g. including language, style, presentation, etc.) that was appropriate for the respective stakeholder(s) and/or stakeholder group(s) engaged, consulted and involved in decision-making;</li> <li>➤ stakeholder access to other sources of information was not restricted or otherwise negatively affected directly or indirectly by the participating operator or be anyone involved directly or indirectly with her/his/its biomass/biofuels operation(s);</li> <li>➤ the ESMP and ESIA/RESA, if required, have been presented for consultation with stakeholders including special focus groups such as indigenous peoples, local communities, vulnerable peoples, women and youth to elicit their responses and comments, and where required consensus.</li> <li>➤ dissenting views of individual stakeholders and/or single-issue groups were recorded in any stakeholder engagement, consultation and involvement in decision-making.</li> </ul> <p>2.b.i.5. Stakeholders affected by the biomass/biofuels operation(s) of the participating operator confirm that indicators 2.b.i.1., 2.b.i.2.,</p>
--	---	--

	<ul style="list-style-type: none"> <li>▪ Management documents shall be publicly available, except where this is prevented by commercial confidentiality, of a proprietary nature or where disclosure of information would result in negative environmental or social outcomes.</li> <li>▪ Participating Operators shall seek consensus, in accordance with the RSB Impact Assessment Guidelines (RSB-GUI-01-002-01), such that individuals or single-issue groups cannot block consensus. Deadlocks shall be broken in accordance with the RSB Impact Assessment Guidelines (RSB-GUI-01-002-01).</li> </ul>	<p>2.b.i.3. and 2.b.i.4 were implemented in all aspects.</p> <p>2.b.i.6. The participating operator provides objective evidence demonstrating that stakeholders have been categorized according to the categories listed below, as described in the RSB Impact Assessment Guidelines (RSB-GUI-01-002-01):</p> <ul style="list-style-type: none"> <li>➤ Directly Affected Stakeholders <ul style="list-style-type: none"> <li>○ Beneficiaries</li> <li>○ Negatively affected</li> </ul> </li> <li>➤ Indirectly Affected Stakeholders <ul style="list-style-type: none"> <li>○ Beneficiaries</li> <li>○ Negatively affected</li> </ul> </li> <li>➤ Responsible Stakeholders <ul style="list-style-type: none"> <li>○ Implementers (proponent and responsible government departments/structures)</li> <li>○ Government decision makers</li> <li>○ Representative</li> </ul> </li> <li>➤ Involved by not essential <ul style="list-style-type: none"> <li>○ Government decision makers</li> <li>○ Representative</li> </ul> </li> <li>➤ Non-essential stakeholders</li> </ul>
--	---	---

- Nice to have stakeholders – supportive or can provide assistance
- Interested stakeholders – concerned but not personally affected

2.b.i.7. The participating operator provides objective evidence describing the types of stakeholders consulted, and that consensus among stakeholders was sought in accordance with the RSB Impact Assessment Guidelines (RSB-GUI-01-002-01). If unanimous support for the project from affected stakeholders was not achieved, then a Stakeholder Engagement Report has been developed following the RSB Impact Assessment Guidelines, indicating:

- the extent of stakeholder agreement and/or opposition;
- the types of stakeholders opposed to the project and reasons;
- whether any aspects of the project contravene any of the RSB principles;
- if the overwhelming majority of affected stakeholders support the proposal

2.b.i.8. The participating operator provides objective evidence demonstrating that management documentation including all documentation related to the impact assessment and ESMP were

		<p>publicly available, except where this is prevented by commercial confidentiality or where disclosure of information would result in negative environmental or social outcomes.</p> <p>2.b.i.9. Stakeholders affected by the biomass/biofuels operation(s) of the participating operator confirm that management documentation including all documentation related to the impact assessment and ESMP of the participating operator was available and accessible.</p>
RSB Criterion	Scope and Requirements	Indicators
<p>Criterion 2c. Biofuel</p> <p>Operators shall implement a business plan that reflects a commitment to long-term economic viability.</p>	<p>Operators who must comply: Feedstock Producer, Feedstock Processor and Biofuel Producer.</p> <p>Minimum requirements:</p> <ul style="list-style-type: none"> <li>Participating Operators shall develop and implement a business plan that reflects a commitment to long-term economic viability which takes into account the social and environmental principles described in the</li> </ul>	<p>2.c.i.1. The participating operator provides objective evidence demonstrating that (a) business plan(s) for her/his/its biomass/biofuels operation(s) has/have been compiled and (b) that this/these business plan(s) show(s) the commitment of the management of the biomass/biofuels operation(s) to long term economic viability of the biomass/biofuels operation(s).</p> <p>2.c.i.2. The participating operator provides objective evidence demonstrating that the business plan takes into account the social and environmental requirements described in the RSB principles &amp;</p>

	<p>RSB Standard. This information shall be proprietary and shall not form part of the impact assessment process.</p>	<p>criteria and the RSB standards.</p> <p>2.c.i.3. The participating operator provides objective evidence demonstrating that the business plan(s) is/are implemented and its effectiveness monitored, and that the business plan(s) are updated and adjusted based on the result of monitoring their effectiveness.</p> <p>2.c.i.4. The participating operator provides objective evidence demonstrating that the business plan(s) objectively reflect(s) the actual situation in and (business) development of the biomass/biofuels operation(s) of the participating operator.</p>
--	--	--

### **Principle 3: Greenhouse Gases**

RSB Principle		
Principle 3. Biofuels shall contribute to climate change mitigation by significantly reducing lifecycle GHG emissions as compared to fossil fuels.		
RSB Criterion	Scope and Requirements	Proposed indicators

<p>Criterion 3a. In geographic areas with legislative biofuel policy or regulations in force, in which biofuel must meet GHG reduction requirements across its lifecycle to comply with such policy or regulations and/or to qualify for certain incentives, biofuel operations subject to such policy or regulations shall comply with such policy and regulations and/or qualify for the applicable incentives.</p>	<p>Operators who must comply: Feedstock Producer, Feedstock Processor, Biofuel Producer, and Biofuel Blender.</p>	<p>3.a.i.1. The participating operator has either calculated the Greenhouse Gas (GHG) emissions of the biofuels using the applicable methodology or provided all necessary input data to the external party that performs the GHG emissions calculations.</p> <p>3.a.i.2. The participating operator maintains documentation of and evidence to support the GHG emissions calculations and the data used in the calculations or provided to external parties.</p> <p>3.a.i.3. The participating operator provides objective evidence demonstrating that lifecycle GHG emissions of the biofuels meet the minimum required GHG emissions reductions of the legislative biofuels policy or regulation in force, for the part of the value chain for which the participating operator is responsible.</p>
<p>RSB Criterion</p>	<p>Scope and Requirements</p>	<p>Proposed Indicators</p>
<p>Criterion 3b. Lifecycle GHG emissions of biofuel shall</p>	<p>Operators who must comply: Feedstock Producer, Feedstock Processor, Biofuel</p>	<p>3.b.i.1. The participating operator has either (a) conducted all required calculations using the RSB GHG calculation methodology or</p>

<p>be calculated using the RSB lifecycle GHG emission calculation methodology, which incorporates methodological elements and input data from authoritative sources; is based on sound and accepted science; is updated periodically as new data become available; has system boundaries from Well to Wheel; includes GHG emissions from land use change, including, but not limited to above- and below-ground carbon stock changes; and incentivizes the use of co-products,</p>	<p>Producer, and Biofuel Blender.</p> <p>Minimum requirements:</p> <ul style="list-style-type: none"> <li>▪ The Participating Operator shall report the lifecycle GHG emissions of the feedstock or biofuel using the RSB GHG Calculation Methodology (RSB-STD-01-003-01).</li> <li>▪ In certain instances where the RSB GHG Calculation Methodology is not available for a fuel pathway, the Participating Operator shall report the lifecycle GHG emissions of the feedstock or biofuel using an alternative, RSB-listed methodology, as indicated in the RSB GHG Calculation Methodology (RSB-STD-01-003-01).</li> </ul>	<p>(b) used the RSB-listed methodology that is applicable to her/his/its biomass/biofuels operation(s), or (c) provided all necessary input data to the external party that performs the GHG emissions calculations.</p> <p>3.b.i.2. The participating operator maintains documentation of and evidence to support the GHG emissions calculations and the data used in the calculations for the RSB calculation methodology or the RSB-listed methodology.</p> <p>3.b.i.3. If the participating operator used a GHG emissions calculation methodology other than the RSB methodology: The participating operator provides objective evidence demonstrating that the same methodology has been used for the entire supply chain of the biofuels up to the point where the participating operator took ownership.</p> <p>3.b.i.4. The participating operator has recorded the results of the GHG calculation.</p>
--	---	---



residues and waste in such a way that the lifecycle GHG emissions of the biofuel are reduced.		
RSB Criterion	Scope and Requirements	Indicators
<p>Criterion 3c. Biofuel blends shall have on average 50% lower lifecycle greenhouse gas emissions relative to the fossil fuel baseline. Each biofuel in the blend shall have lower lifecycle GHG emissions than the fossil fuel baseline.</p>	<p>Operators Who Must Comply: Biofuel Blender.</p> <p>Minimum requirements:</p> <ul style="list-style-type: none"> <li>▪ Lifecycle greenhouse gas emissions of a biofuel blend, calculated following the methodology in Criterion 3b, shall be on average 50% lower than the applicable fossil fuel baseline.</li> <li>▪ Each biofuel in the blend shall have lower lifecycle GHG emissions, calculated following the methodology in Criterion 3b, than the applicable fossil fuel baseline.</li> </ul> <p>Progress requirements:</p>	<p>3.c.i.1. For biofuel substitutes of gasoline, diesel, and aviation jet fuel, the lifecycle GHG emissions of biofuel blends, in gCO<sub>2</sub>e/MJ-fuel, are on average lower than the gasoline, diesel, and jet fuel baseline by 50%. Note: A biofuels blend can be comprised 100% of the same biofuel.</p> <p>3.c.i.2. For biofuel substitutes of gasoline, diesel, and aviation jet fuel, the lifecycle GHG emissions of each biofuel in a blend, in gCO<sub>2</sub>e/MJ-fuel, are lower than the gasoline, diesel, and jet fuel baseline, respectively.</p> <p>3.c.i.3. The participating operator provides objective evidence demonstrating that GHG emissions in their biomass/biofuels operation(s) have been reduced over time.</p>

	<ul style="list-style-type: none"> <li>▪ The minimum lifecycle GHG reduction of the biofuel blend, starting at 50%, shall increase over time.</li> </ul>	<p><i>Note: The gasoline, diesel and jet fuel baselines are stated in the RSB Fossil Fuel Baseline GHG Calculation Methodology (RSB-STD-01-003-02) in gCO<sub>2</sub>e/MJ-fuel.</i></p>
--	--	---

### **Principle 4: Human and Labor Rights**

RSB Principle		
Principle 4. Biofuel operations shall not violate human rights or labor rights, and shall promote decent work and the well-being of workers.		
RSB Criterion	Scope and Requirements	Indicators
Criterion 4.a Workers shall enjoy freedom of association, the right to organize, and the right to collectively bargain.	<p>Operators who must comply: Feedstock Producer, Feedstock Processor and Biofuel Producer.</p> <p>Minimum requirements</p> <ul style="list-style-type: none"> <li>▪ In countries where the law prevents collective bargaining or unionization, operators shall not</li> </ul>	4.a.i.1. Workers engaged in the operation(s) of the participating operator confirm that they are aware of, and have the right to freely organize, voluntarily negotiate their working conditions and bargain collectively with the management of the operation(s), as established in ILO Conventions 87 and 98.

	<p>interfere with workers' own efforts to set up representational mechanisms in such cases, and shall provide a mechanism for workers to engage with employers without breaking the law.</p>	<p>4.a.i.2. Workers engaged in the operation(s) of the participating operator confirm that they do not fear nor suffer any negative consequences (e.g. loss of privileges, penalties, lack of career advancement) in exercising the right to freely organize, voluntarily negotiate their working conditions and bargain collectively with the management of the operation(s).</p> <p>4.a.i.3. Workers engaged in the operation(s) of the participating operator confirm that there is no perceived or actual threat of undue interference by the management and/or their designated representatives of the operation(s) of the participating operator in workers exercising their rights to freely organize, voluntarily negotiate their working conditions and bargain collectively with the management of the operation(s).</p> <p>4.a.i.4. In situations where the rights to freedom of association and collective bargaining are restricted by law, the management of the operation(s) of the participating operator allows workers to freely elect their own representatives, does not interfere with such representational mechanisms, and provides a mechanism for workers to freely engage and negotiate with employers without breaking the law analog to the requirements established in ILO</p>
--	--	---

RSB Criterion	Scope and Requirements	Indicators
<p>Criterion 4.b No slave labor or forced labor shall occur.</p>	<p>Operators who must comply: Feedstock Producer, Feedstock Processor and Biofuel Producer.</p> <p>Note: include negotiate contracts, conditions etc</p>	<p>Conventions 87 and 98.</p> <p>4.b.i.1. The participating operator provides objective evidence demonstrating that her/his/its operation(s) does/do not engage in or support the use of forced, compulsory, bonded, trafficked or otherwise involuntary labor as defined in ILO Convention 29 either directly or through independent third parties (e.g. contractors, etc.) engaged in the operations.</p> <p>4.b.i.2. Workers engaged in the operation(s) of the participating operator confirm that they are not required to lodge their identity documents with anyone and that no part of their salary, benefits or property is retained in order to force them to work or stay on the operation(s).</p> <p>4.b.i.3. Spouses and children of workers engaged in the operation(s) of the participating operator are not obliged to work in the operation(s).</p> <p>4.b.i.4. Workers engaged in the operation(s) of the participating</p>

		<p>operator confirm that they are allowed to leave their employment after due notice according to their contractual agreements.</p> <p>4.b.i.5. Workers engaged in the operation(s) of the participating operator confirm that they are allowed to leave company premises freely at the end of their work shifts.</p>
<b>RSB Criterion</b>	<b>Scope and Requirements</b>	<b>Indicators</b>
<p>Criterion 4.c No child labor shall occur, except on family farms and then only when work does not interfere with the child’s schooling and does not put his or her health at risk.</p>	<p>Operators who must comply: Feedstock Producer, Feedstock Processor and Biofuel Producer.</p> <p>Minimum requirements</p> <ul style="list-style-type: none"> <li>▪ Schooling age limit is that defined in the national legislation or 14, whichever is higher.</li> <li>▪ Hazardous child labor as defined by ILO Convention 138 is not allowed.</li> <li>▪ Work by children on family small holdings is only acceptable under adult supervision and when work does not interfere with the child’s schooling nor puts at risk his or her health.</li> </ul>	<p>4.c.i.1. The participating operator provides objective evidence demonstrating that her/his/its operation(s) does/do not engage children of age 14 and under (or the legal national age). (Exceptions may be made in the case of family farms – see 4.c.i.3., 4.c.i.4. and 4.c.i.5. below)</p> <p>4.c.i.2. The participating operator provides objective evidence demonstrating that in her/his/its operation(s) workers under the age of 18 do not undertake hazardous or dangerous work, as defined by ILO convention 138.</p> <p>In the case of family farms only:</p> <p>4.c.i.3. The participating operator provides objective evidence</p>

		<p>demonstrating that in her/his/its operation(s) where permitted by law, children between 12 and 14 years of age can work part time on family farms, only if they are family members or neighbors in a community where children have traditionally helped with agricultural work.</p> <p>4.c.i.4. The participating operator provides objective evidence demonstrating that in her/his/its operation(s) the work of children on family farms does not interfere with their educational, social or physical development and that the work day including schooling, transport and work does not exceed 10 hours.</p> <p>4.c.i.5. The participating operator provides objective evidence demonstrating that in her/his/its operation(s) the work of children on family farms does not have negative impacts on the children's schooling (i.e. this may be verified by interviewing the children and the teachers at the local school).</p> <p>4.c.i.6. The participating operator provides objective evidence demonstrating that in her/his/its operation(s) the work of children on family farms does not have negative impact on the children's health and development (i.e. this may be verified by interviewing children</p>
--	--	--

RSB Criterion	Scope and Requirements	Indicators
<p>Criterion 4.d Workers shall be free of discrimination of any kind, whether in employment or opportunity, with respect to gender, wages, working conditions, and social benefits.</p>	<p>Operators who must comply: Feedstock Producer, Feedstock Processor and Biofuel Producer.</p> <p>Minimum requirements</p> <ul style="list-style-type: none"> <li>▪ Employees, contracted labor, small outgrowers, and employees of outgrowers shall all be free of discrimination as per ILO Convention 111.</li> <li>▪ Career development shall be encouraged for all workers</li> <li>▪ Work sites shall be safe for women; free from sexual harassment and other discrimination and abuse; and promote access to jobs, skills training, recruitment and career development for women to ensure more gender balance in work and career development.</li> </ul>	<p>and local health service providers).</p> <p>4.d.i.1. Workers engaged in the operation(s) of the participating operator confirm that they are not subjected to any form of discrimination in hiring, remuneration, benefits, access to training, promotion, termination, retirement or any other aspect of employment, based on race, color, gender, religion, political opinion, national extraction, social origin, sexual orientation, family responsibilities, marital status, union membership, age or any other condition that could give rise to discrimination.</p> <p>4.d.i.2. Workers engaged in the operation(s) of the participating operator confirm that they are not subjected to corporal punishment, mental or physical oppression and coercion, verbal or physical abuse, sexual harassment or any other kind of intimidation in the workplace and where applicable in residences and other facilities provided by the operation(s) of the participating operator for use by workers.</p> <p>4.d.i.3. Male and female workers engaged in the operation(s) of the</p>

		participating operator confirm that they have equal access to career development programs (not applicable to family farms or small-scale operators and outgrowers).
RSB Criterion	Scope and Requirements	Indicators
<p>Criterion 4e. Workers' wages and working conditions shall respect all applicable laws and international conventions, as well as all relevant collective agreements. Where a government regulated minimum wage is in place in a given country and applies to the specific industry sector, this shall be observed. Where a minimum wage is absent, the wage paid for a</p>	<p>Operators who must comply: Feedstock Producer, Feedstock Processor and Biofuel Producer.</p> <p>Minimum requirements :</p> <ul style="list-style-type: none"> <li>▪ Wages shall be provided in cash or in another form acceptable to workers.</li> <li>▪ Any housing provided by the Participating Operator for permanent or temporary workers shall be built and maintained to ensure good sanitary, health, and safety conditions.</li> <li>▪ For piecework (pay based on production rather than hours), the pay rate must allow workers to earn at least the legal minimum wage or comparable regional wage,</li> </ul>	<p>4.e.i.1. The participating operator provides objective evidence demonstrating that all workers are paid at least the government regulated minimum wage in the specific industry sector for the applicable work as required by law, and that this includes all mandated wages, allowances and benefits.</p> <p>4.e.i.2. The participating operator provides objective evidence demonstrating that where government regulated minimum wages do not exist in the specific industry sector, the management of the operation(s) of the participating operator has agreed a wage with the workers.</p> <p>4.e.i.3. Workers engaged in the operation(s) of the participating operator confirm that the agreed wage, as referred to in indicator 4.e.i.2. is agreed freely on an annual basis.</p>



<p>particular activity shall be negotiated and agreed on an annual basis with the worker. Men and women shall receive equal remuneration for work of equal value.</p>	<p>whichever is higher, based on an eight-hour workday under average conditions.</p> <ul style="list-style-type: none"> <li>▪ The maximum number of regular hours worked per week must not exceed 48. Workers may work overtime which shall be voluntary, but total working hours shall not exceed 80 per week.</li> </ul>	<p>4.e.i.4. The participating operator provides objective evidence demonstrating that such agreements are in line with all applicable laws and international conventions and local collective agreements.</p> <p>4.e.i.5. Workers engaged in the operation(s) of the participating operator confirm that men and women earn equal pay for equal work.</p> <p>4.e.i.6. Workers engaged in the operation(s) of the participating operator confirm that for piecework, the pay rate allows male and female workers to earn at least the legal minimum wage (or comparable regional wage) for the specific work, based on an eight-hour workday under average conditions.</p> <p>4.e.i.7. Workers engaged in the operation(s) of the participating operator confirm that wages are paid on a monthly basis, or more frequently, in cash or in another form acceptable to workers.</p> <p>4.e.i.8. Workers engaged in the operation(s) of the participating operator confirm that no deductions from wages as a result of disciplinary measures are made.</p> <p>4.e.i.9. Workers engaged in the operation(s) of the participating operator confirm that all agreements relating to pay, benefits and</p>
---	--	--

conditions of employment are upheld.

4.e.i.10. Work plans of and workers engaged in the operation(s) of the participating operator confirm that the maximum number of hours worked per regular week does not exceed 48 hours on average.

4.e.i.11. Workers engaged in the operation(s) of the participating operator confirm that overtime work takes place only in exceptional circumstances (e.g. peak production periods), that overtime work is voluntary, and that the total number of work hours including overtime does not exceed 80 hours per week.

4.e.i.12. Workers engaged in the operation(s) of the participating operator confirm that overtime is paid according to legal requirements and existing industry standards, and that the pay for overtime is equal to or higher than the pay for regular work time.

4e.i.13. Workers engaged in the operation(s) of the participating operator confirm that in cases of terminations/redundancies/lay-offs, economic compensation for workers is provided according to relevant national labor legislation, and that in the absence of national legislation, the labor contract includes a provision for economic compensation.

RSB Criterion	Scope and Requirements	Indicators
<p>Criterion 4.f Conditions of occupational safety and health for workers shall follow internationally-recognized standards.</p>	<p>Operators who must comply: Feedstock producer, Feedstock processor and Biofuel producer.</p> <p>Minimum requirements</p> <ul style="list-style-type: none"> <li>▪ Workers shall not be exposed to any occupational health or safety hazards without adequate protection and training as defined in national law and international standards.</li> </ul>	<p>4.f.i.1. The participating operator provides objective evidence demonstrating where applicable comprehensive and consistent compliance with the provisions of ILO convention 184.</p> <p>4.f.i.2. The participating operator provides objective evidence demonstrating that workers are skilled in the implementation of their prescribed activities and jobs to minimize health and safety risks and the risk of work related accidents.</p> <p>4.f.i.3. The participating operator has a health and safety policy in place, which applies to all workers, including contractors, workers and outgrowers. (i.e. this indicator is not applicable to small operations).</p> <p>4.f.i.4. Small participating operators do not need to have the procedures required in indicator 4.f.i.3. in written form, but they need to be able to demonstrate that the requirements of indicators 4.f.i.3. are complied with, and that their workers are aware of, and confirm implementation of such requirements (procedures and measures).</p> <p>4.f.i.5. The participating operator provides objective evidence</p>

		<p>demonstrating that procedures and measures addressing emergencies and accidents are in place, fully implemented, continuously monitored and improved, and apply to all workers engaged in the operations of the participating operator.</p> <p>4.f.i.6. The participating operator provides objective evidence demonstrating that all workers understand the participating operators' accident and emergency procedures and measures.</p> <p>4.f.i.7. The participating operator maintains, and reviews periodically records of all work-related accidents, and adjusts its accident and emergency procedures to minimize the risk of work-related accidents.</p> <p>4.f.i.8. The participating operator provides objective evidence demonstrating that first aid kits, fire extinguishers, and spill response material are available in sufficient quantity (i.e. readily available and accessible to workers) and quality (i.e. current and periodically serviced and appropriate to address the associated hazards and risks) at all sites including mobile facilities and in the vicinity of agricultural sites, and that workers are knowledgeable of such equipments and its use.</p> <p>4.f.i.9. The participating operator provides objective evidence</p>
--	--	---

demonstrating that all workers are provided with and regularly use personal protective equipment to protect them from all occupational health and safety hazards associated with their respective jobs.

4.f.i.10. The participating operator provides objective evidence demonstrating that all workers are;

- trained, knowledgeable and regularly using protective equipment and installations,
- trained and knowledgeable in interpretation of labels, markings, signs, and other safety relevant audio and/or visual signals,
- trained and knowledgeable about work-related health and safety risks and preventative measures for minimizing the risk to health and safety,
- trained and knowledgeable about work-related risks to the environment and/or society,
- trained and knowledgeable about accident and emergency procedures,
- trained and knowledgeable about correct application, transport, storage and handling of hazardous substances and waste, and

		<ul style="list-style-type: none"> <li>➤ trained and knowledgeable about all other aspects of the operation(s) of the participating operator that pose occupational health and safety risks or risks to the environment and/or to society.</li> </ul> <p>4.f.i.11. In operation(s) other than small operations the participating operator provides objective evidence demonstrating that specially trained and equipped teams have been established to respond to accidents and emergencies without delay.</p> <p>4.f.i.12. The participating operator provides objective evidence demonstrating that all workers have access to clean sanitary facilities and potable (drinking) water.</p> <p>4.f.i.13. The participating operator provides objective evidence demonstrating that any living quarters and infrastructure for sleeping, for sanitary facilities (e.g. toilet/latrines, showers, etc) and facilities for storing, preparing and distributing of food provided to workers are designed, built and regularly maintained to which meet the basic needs of the personnel and their families, and comply with legal requirements, and ensure safe and healthy conditions.</p> <p>4.f.i.14. Workers engaged in the operation(s) of the participating</p>
--	--	--

		operator confirm that housing provided by the participating operator is in good structural condition, is maintained sufficiently and offers sufficient privacy, sanitary, health, and safety conditions.
RSB Criterion	Scope and Requirements	Indicators
Criterion 4 g. Operators shall implement a mechanism to ensure the human rights and labor rights outlined in this principle apply equally when labor is contracted through third parties.	<p>Operators who must comply: Feedstock Producer, Feedstock Processor and Biofuel Producer.</p> <p>Progress requirements (required within three years of certification):</p> <ul style="list-style-type: none"> <li>Participating operators shall identify instances where those working within the scope of their operational function (feedstock producer, feedstock processor, or biofuel producer) are contracted outside of the direct influence of the operation by external parties and shall implement a mechanism to ensure that such contracted workers are afforded the same rights as described in this principle as employed staff within the process.</li> </ul>	<p>4.g.i.1. The participating operator maintains up-to-date records of all independent third parties engaged in her/his/its operation(s).</p> <p>4.g.i.2. The participating operator provides objective evidence demonstrating that independent third parties engaged in her/his/its operation(s) are compliant with the requirements of Principle 4.</p>

## Principle 5: Rural and Local Development

RSB Principle		
Principle 5. In regions of poverty, biofuel operations shall contribute to the social and economic development of local, rural and indigenous people and communities.		
RSB Criterion	Scope and Requirements	Indicators
Criterion 5a. In regions of poverty, the socioeconomic status of local stakeholders impacted by biofuel operations shall be improved.	<p>Operators who must comply: Feedstock producer, Feedstock processor, Biofuel producer.</p> <p>Minimum requirements</p> <ul style="list-style-type: none"> <li>▪ Where the socioeconomic baseline survey undertaken during the social impact assessment process in accordance with the Social Impact Assessment Guidelines (RSB-GUI-01-005-01) identifies an excess</li> </ul>	<p>5.a.i.1. The participating operator provides objective evidence analyzing whether her/his/its biomass/biofuels operation(s) is/are in a region of poverty.</p> <p>In regions of poverty:</p> <p>5.a.i.2. The participating operator provides objective evidence demonstrating that measures to improve their socio-economic status have been agreed with directly affected local stakeholders.</p> <p>5.a.i.3. Local stakeholders affected by the biomass/biofuels operation(s) of the participating operator confirm that measures</p>



	<p>of unemployed or underemployed labor in the locality of the operations, biofuel operations shall optimize the job creation potential.</p> <ul style="list-style-type: none"> <li>▪ The Participating Operator shall assess ways in which the use of permanent and local labor can be promoted and introduced over the use of migrant, seasonal and casual labor.</li> <li>▪ If it is determined through the RSB impact assessment or monitoring process that mechanization is the optimal choice from an environmental, economic, and social perspective, the transition from labor intensity to mechanization shall be done in a fair and equitable way for existing workers where as many of the existing workers as possible are retrained and employed in the mechanized process.</li> <li>▪ Measured improvements in the social and</li> </ul>	<p>agreed with the management of and implemented by the biomass/biofuels operation(s) of the participating operator improve their socio-economic status.</p> <p>5.a.i.4. The measures agreed as per indicator 5.a.i.2. include measures to mitigate negative socio- economic impacts resulting directly or indirectly from the biomass/biofuels operation(s) on the directly affected stakeholders.</p> <p>5.a.i.5. Local workers confirm that the management of the biomass/biofuels operation(s) of the participating operator has preferred and continues to prefer local workers where available over migrant labor.</p> <p>5.a.i.6. Local workers confirm that the management of the biomass/biofuels operation(s) of the participating operator has created and continues to create permanent employment opportunities.</p> <p>5.a.i.7. The participating operator provides objective evidence demonstrating that skill-training programs that support the employment of permanent workers and of local workers are in place and implemented.</p>
--	--	---

	<p>economic indicators as set against the baseline survey carried out under the social impact assessment process shall be targeted for review every three years.</p> <ul style="list-style-type: none"> <li>▪ Skills training shall be provided by the operator if necessary to ensure the implementation of this criterion. Cultural sensitivity and respect for existing social structures shall be applied in the development of options for compliance with this criterion.</li> <li>▪ At least one measure to significantly optimize the benefits to local stakeholders shall be implemented within a three year period of the start of the operations, for instance: <ul style="list-style-type: none"> <li>a. Creation of year round and/or long term jobs</li> <li>b. The establishment of governance structures that support</li> </ul> </li> </ul>	<p>5.a.i.8. The participating operator provides objective evidence demonstrating that where introduction of mechanization leads to a reduction in labor intensity this solution is preferable from a social <u>and</u> environmental and/or economic perspective.</p> <p>5.a.i.9. Where introduction of mechanization leads to a reduction in labor intensity the directly affected stakeholders confirm this solution is preferable from a social and environmental and/or economic perspective.</p> <p>5.a.i.10. Where introduction of mechanization leads to a reduction in labor intensity the directly affected stakeholders confirm that the maximum possible number of employees was retained through re-assignment and re-training.</p> <p>5.a.i.11. Where introduction of mechanization leads to a reduction in labor intensity the directly affected stakeholders confirm that the effects on workers who were not retained were mitigated through (a) social action plan(s).</p> <p>5.a.i.12. The participating operator provides objective evidence demonstrating that at least one of the following has been achieved within a three-year period of the start of operations:</p>
--	--	---

	<p>empowerment of small scale farmers and rural communities such as co-operatives and micro credit schemes</p> <p>c. Use of the locally produced bio-energy to provide modern energy services to local poor communities</p> <p>d. Shareholding options, local ownership, joint ventures and partnerships with the local communities</p> <p>e. Social benefits for the local community such as the building or servicing of clinics, homes, hospitals and schools.</p>	<p>a. Creation of year round and/or long term jobs by the biomass/biofuels operation(s) of the participating operator.</p> <p>b. The establishment of governance structures that support empowerment of small-scale farmers and rural communities such as co-operatives and micro credit schemes.</p> <p>c. Use of the locally produced bio-energy to provide modern energy services to local communities.</p> <p>d. Shareholding options, local ownership, joint ventures and partnerships with the local communities.</p> <p>e. Social benefits for the local community such as the building or servicing of clinics, homes, hospitals and schools.</p>
RSB Criterion	Scope and Requirements	Indicators
Criterion 5b. In regions of poverty, special measures that benefit and encourage the participation of women, youth, indigenous	Operators who must comply: Feedstock Producer, Feedstock Processor, Biofuel Producer	<p>The criterion 5.b. and the indicators to criterion 5.b. apply only to biomass/biofuels operations in regions of poverty.</p> <p>5.b.i.1. The participating operator provides objective evidence</p>

<p>communities and the vulnerable in biofuel operations shall be designed and implemented.</p>	<p>5.b.1 Minimum requirements</p> <ul style="list-style-type: none"> <li>▪ Data for rural poor women in regions of poverty shall be disaggregated in the baseline social surveys to assist with the design of special programs for the targeted people.</li> </ul> <p>5.b.2 Progress requirements:</p> <ul style="list-style-type: none"> <li>▪ Training and capacity building shall be required to give effect to this principle. Such training is required for both the workers and also for management that oversees employment protocols and supervision.</li> </ul>	<p>demonstrating that the management of the biomass/biofuels operation(s) has sufficient understanding of gender issues and issues that relate to youth, indigenous people and vulnerable people.</p> <p>5.b.i.2. The participating operator provides objective evidence demonstrating that a social plan has been agreed with directly impacted stakeholders which includes special measures to benefit women, youth, indigenous people and vulnerable people and involve them in the biomass/biofuels operation(s) of the participating operator.</p> <p>5.b.i.3. Women, youth, indigenous people and vulnerable people confirm that the social plan agreed as per indicator 5.b.i.2. is implemented and that benefits are received.</p>
--	--	--

## **Principle 6: Food Security**

RSB Principle

Principle 6. Biofuel operations shall ensure the human right to adequate food and improve food security in food insecure regions.

RSB Criterion

Scope and Requirements

Indicators

Criterion 6a. Biofuel operations shall assess risks to food security in the region and locality and shall mitigate any negative impacts that result from biofuel operations.

Operators who must comply: Feedstock Producer, Feedstock Processor and Biofuel Producer.

Minimum requirements

- Where the screening exercise of the RSB impact assessment process reveals a direct impact on food security in food insecure regions, Participating Operators shall conduct a food security assessment in accordance with the RSB Food Security Assessment Guidelines (RSB-GUI-006-01).
- The scope of the food security assessment shall include additional impacts that the

6.a.i.1. The participating operator provides objective evidence demonstrating whether the biomass/biofuels operation(s) is/are in a region which is at risk of food insecurity, in accordance with the RSB screening exercise.

In regions where food security has been identified as a risk during the RSB screening exercise:

6.a.i.2. The participating operator provides objective evidence demonstrating that an assessment of the status of food security in the region has been undertaken including the assessment of access, availability, stability and utilization of food.

6.a.i.3. The participating operator provides objective evidence demonstrating that the methodology used for assessment of the status of food security in the region provides results equivalent to the

	<p>biofuel operations may have on cross-cutting requirements for food security including land, water, labor, and infrastructure.</p> <ul style="list-style-type: none"> <li>▪ If the food security assessment indicates a food security risk as a result of biofuel operations, a mitigation plan shall be developed and implemented through the ESMP.</li> <li>▪ Measures developed under Principle 5 that mitigate food insecurity shall be integrated with the measures developed under Criterion 6a.</li> </ul>	<p>RSB Food Security Assessment Guidelines (RSB-GUI-006-01).</p> <p>6.a.i.4. The participating operator provides objective evidence demonstrating that an assessment of the impacts of her/his/its biomass/biofuels operation(s) on food security in the region in accordance with the RSB Food Security Assessment Guidelines (RSB-GUI-006-01) was carried out, including an assessment of potential positive and negative impacts and impacts on local economic development.</p> <p>6.a.i.5. The participating operator provides objective evidence demonstrating that in cases where her/his/its biomass/biofuels operation(s) actually or possibly result in negative impact(s) on food security in the region, the corresponding management plan has been adapted to mitigate such negative impacts.</p> <p>6.a.i.6. The participating operator provides objective evidence demonstrating that the implementation of the relevant management plan ensures that impacts on food security are minimized and mitigated, and that access, availability, stability and utilization of food at the local level do not decrease as a result of her/his/its biomass/biofuels operation(s).</p>
--	---	---

<p>Criterion 6b. In food insecure regions, biofuel operations shall enhance the local food security of the directly affected stakeholders.</p>	<p>Operators who must comply: Feedstock Producer, Feedstock Processor, and Biofuel Producer.</p> <p>Minimum requirements:</p> <ul style="list-style-type: none"> <li>▪ In regions where food security is an ongoing risk and concern, operations shall enhance food security of the locally affected community by, for instance, setting aside land for food growing, increasing yields, providing opportunities for workers to carry out household-level food production, sponsoring agricultural support programs and activities, and/or making value-added food byproducts available to the local market.</li> <li>▪ Measures to enhance regional food security shall be integrated with measures that contribute to rural and social development developed under Principle 5.</li> </ul>	<p>Criterion 6.b and the corresponding indicators 6.b.i.1., 6.b.i.2. and 6.b.i.3. apply only in food insecure regions.</p> <p>6.b.i.1. The participating operator provides objective evidence demonstrating that measures are implemented to enhance food security of directly affected stakeholders.</p> <p>6.b.i.2. The participating operator provides objective evidence demonstrating that the effectiveness of the measures to enhance food security of directly affected stakeholders is monitored.</p> <p>6.b.i.3. The participating operator maintains records of all activities designed to enhance local food security (as prescribed in indicator 6.b.i.1.) including the type of activity, number of people/organizations affected and monetary value of the implemented measures.</p> <p><i>Guidance - activities to enhance food security include but are not limited to:</i></p> <ul style="list-style-type: none"> <li>▪ <i>setting aside land for food growing,</i></li> <li>▪ <i>increasing yields,</i></li> <li>▪ <i>providing opportunities for workers to carry out household-level food production,</i></li> </ul>
--	--	---

		<ul style="list-style-type: none"> <li>▪ <i>sponsoring agricultural support programs and activities, and</i></li> <li>▪ <i>making value-added food byproducts available to local markets.</i></li> </ul>
--	--	--

## **Principle 7: Conservation**

<b>RSB Principle</b>		
Principle 7. Biofuel operations shall avoid negative impacts on biodiversity, ecosystems, and conservation values.		
<b>RSB Criterion</b>	<b>Scope and Requirements</b>	<b>Indicators</b>
Criterion 7.a Conservation values of local, regional or global importance within the potential or existing area of operation shall be maintained or enhanced.	<p>Operators who must comply: Feedstock Producer, Feedstock Processor and Biofuel Producer.</p> <p>Minimum requirements</p> <ul style="list-style-type: none"> <li>▪ Participating Operators shall identify the conservation value(s) within the area of a</li> </ul>	<p>7.a.i.1. The participating operator provides objective evidence demonstrating that they have identified conservation values of global, regional or local importance affected by the potential or existing biomass/biofuels operation(s) of the participating operator by following the screening exercise (RSB-GUI-01-002-02) of the RSB impact assessment process.</p> <p>7.a.i.2. The objective evidence provided by the participating</p>



	<p>potential or existing operation during the screening exercise of the RSB impact assessment process (Principle 2).</p> <ul style="list-style-type: none"> <li>▪ Conversion or use of new areas for biofuel operations shall not occur prior to the screening exercise.</li> <li>▪ Where conservation values of local, regional or global importance have been identified, Participating Operators shall carry out a specialized impact assessment in accordance with the Conservation Impact Assessment Guidelines (RSB-GUI-01-007-01).</li> <li>▪ Biofuel operations shall prioritize areas with the lowest possible risk of impacts to the identified conservation values.</li> <li>▪ Areas identified as “no-go areas” shall not be used for biofuel operations after the 1<sup>st</sup> of January 2009, unless feedstock production or processing operations are</li> </ul>	<p>operator on the identification of conservation values as per the screening exercise (RSB-GUI-01-002-02) includes:</p> <ul style="list-style-type: none"> <li>➤ Maps and databases used for the first steps of the assessment.</li> <li>➤ Evidence of consultation (e.g. meeting records) with relevant national/regional experts and institutions to identify conservation values of global, regional or local importance.</li> <li>➤ Evidence of consultation with local stakeholders to conservation values of global, regional or local importance.</li> <li>➤ For new projects, site level mapping, including delineation of areas to be planted and areas to be set aside for conservation values of global, regional or local importance.</li> <li>➤ For existing projects, site level mapping, including delineation of areas to be maintained or restored for conservation values of global, regional or local importance.</li> <li>➤ Comprehensive description of conservation values of global, regional or local importance related to the area.</li> <li>➤ Comprehensive description of the possible impacts of the biomass/biofuels operation(s) on conservation values of global, regional or local importance.</li> </ul>
--	--	---

	<p>legally authorized as part of the conservation management for the area concerned.</p> <ul style="list-style-type: none"> <li>▪ Areas that contain identified conservation values of global, regional or local importance or that serve to maintain or enhance such conservation values shall not be converted after the 1st of January 2009, or earlier as prescribed by other relevant international standards.</li> <li>▪ Areas that contain conservation values of global, regional or local importance or serve to maintain or enhance such conservation values shall only be used if adequate management practices maintain or enhance the identified conversation values (e.g. sustainable biomass harvesting).In case of new operations, conversion or use of areas shall not occur prior to the land use impact assessment.</li> <li>▪ Hunting, fishing, ensnaring, poisoning and</li> </ul>	<ul style="list-style-type: none"> <li>➤ Comprehensive description of the possible risks resulting from the biomass/biofuels operation(s) to conservation values of global, regional or local importance.</li> <li>➤ Comprehensive description of the precautionary measures and practices identified and implemented to ensure that the conservation values of global, regional or local importance relating to and/or affected by the potential or existing biomass/biofuels operation(s) of the participating operator (i.e. including consideration of the wider landscape context) are maintained or enhanced.</li> </ul> <p>7.a.i.3. The participating operator provides objective evidence demonstrating that the methodology used to identify conservation values follows the RSB Screening Exercise (RSB-GUI-01-002-02) or provides equivalent results.</p> <p>7.a.i.4. The participating operator provides objective evidence demonstrating that no area with conservation values of global, regional or local importance has been converted for biofuels production after 1 January 2009, or earlier as prescribed by other international standards.</p> <p>7.a.i.5. The participating operator provides objective evidence</p>
--	---	--

	<p>exploitation of rare, threatened, endangered and legally protected species shall not occur on the operation site.</p>	<p>demonstrating that the proposed or existing biomass/biofuels operation(s) can be/are managed in ways which maintain or enhance any conservation values of global, regional or local importance identified during the screening exercise.</p> <p>7.a.i.6. The participating operator provides objective evidence demonstrating that precautionary measures and implemented practices have been effective in maintaining or enhancing conservation values of global, regional or local importance.</p> <p><i>Guidance for 7.a.i.6: The mitigation measures to be covered in the ESMP include but are not limited to sustainable harvesting of the biomass existing on the site (e.g. thinning, mowing), protection measures for biodiversity values, the creation of conservation set side zones, buffer zones, multiple use zones, controls on access and product removals, and specifically the ban on hunting, fishing, ensnaring, poisoning and exploitation of rare, threatened, endangered and legally protected species.</i></p> <p>7.a.i.7. The participating operator provides objective evidence demonstrating that the results of the RSB Screening Exercise (RSB-GUI-01-002-02) and related precautionary measures have been effective in giving preference to operating in areas which pose the</p>
--	--	---

		<p>lowest risk to conservation values of global, regional or local importance.</p> <p>7.a.i.8. The participating operator provides objective evidence demonstrating that a written summary listing of the conservation values of global, regional or local importance identified through the RSB Screening Exercise (RSB-GUI-01-002-02) is publicly available.</p> <p>7.a.i.9. The participating operator provides objective evidence demonstrating that none of her/his/its biomass/biofuel operation(s) have taken place or are planned within legally protected areas, UNESCO World Heritage sites, Ramsar sites, IUCN Protected Areas Types 1 &amp; 2, Alliance for Zero Extinction sites, or any legally protected areas, after 1 January 2009 unless there is documented evidence that biomass/biofuels production or processing operation(s) are legally authorized as part of the conservation management for the area concerned.</p> <p>7.a.i.10. The participating operator provides objective evidence demonstrating that no hunting, fishing, ensnaring, poisoning and exploitation of rare, threatened, endangered and legally protected species is ongoing on her/his/its biomass/biofuels operation(s).</p>
--	--	--

RSB Criterion	Scope and Requirements	Indicators
<p>Criterion 7b. Ecosystem functions and services that are directly affected by biofuel operations shall be maintained or enhanced.</p>	<p>Operators who must comply: Feedstock Producer, Feedstock Processor and Biofuel Producer.</p> <p>Minimum requirements</p> <ul style="list-style-type: none"> <li>▪ In accordance with the results of the impact assessment process, Participating Operators shall implement practices through the Environmental and Social Management Plan (ESMP) that maintain ecosystem functions and services both inside and outside the operational site, which are directly affected by biofuel operations.</li> </ul>	<p>7.b.i.1. The participating operator provides objective evidence demonstrating that ecosystem functions and services that are directly affected by her/his/its biomass/biofuels operation(s) were identified during the screening exercise.</p> <p>7.b.i.2. If evidence exists that the operation will directly affect ecosystem functions and services, the participating operator provides objective evidence demonstrating that management of her/his/its biomass/biofuels operation(s) effectively maintains or enhances the ecosystem functions and services identified both inside, and outside the site(s) of the biomass/biofuels operation(s).</p> <p><i>Guidance: The management practices in the ESMP may include:</i></p> <p><i>For ecosystem functions: the creation or maintenance and protection of areas where natural regeneration processes are allowed to take place, and where populations of native plants and animals can breed, feed and find refuge.</i></p> <p><i>For Ecosystem services:</i></p>

- *Actions to control and minimize disturbance to water quality and water flows e.g. the creation or protection of riparian buffer zones of natural vegetation, and the maintenance of natural vegetation in important water catchments, especially steep slopes.*
- *Actions to control and minimize soil disturbance, erosion and compaction including the avoidance of land clearance on sensitive or highly erodible soils, especially on steep slopes, and positive soil restoration measures where appropriate.*
- *Actions to minimize the risk of fire and the effects of wind erosion e.g. maintenance of appropriate natural barriers.*
- *Protection and maintenance of areas of natural vegetation where local populations can maintain a sustainable harvest of those natural goods (e.g. NTFPs) which have been identified as important to their livelihoods.*

7.b.i.3. The participating operator provides objective evidence demonstrating that continuous monitoring and measures implemented through their ESMP to maintain and enhance ecosystem functions and services are effective.

RSB Criterion	Scope and Requirements	Indicators
<p>Criterion 7c. Biofuel operations shall protect, restore or create buffer zones.</p>	<p>Operators who must comply: Feedstock Producer, Feedstock Processor and Biofuel Producer</p> <p>Minimum requirements</p> <ul style="list-style-type: none"> <li>▪ In accordance with the results of the impact assessment process, buffer zones shall be protected, restored or created to avoid negative impacts from biofuel operations on areas that are contiguous to the operation site.</li> <li>▪ In accordance with the results of the impact assessment process, within the operational site, buffer zones shall be protected, restored or created to avoid negative impacts from the biofuel operations on areas that contain conservation value(s) of local, regional or global importance.</li> </ul>	<p>7.c.i.1. The participating operator provides objective evidence demonstrating that buffer zones are protected, restored or created within the site(s) of her/his/its biomass/biofuels operation(s) around areas with conservation values of local, regional or global importance.</p> <p>7.c.i.2. The participating operator provides objective evidence demonstrating that buffer zones are effective in mitigating potential negative impacts of the biofuel/biomass operations on areas that are contiguous to the operation site and, within the operation site, on any area containing conservation value(s) of local, regional or global importance.</p> <p>7.c.i.3. The participating operator provides objective evidence demonstrating that buffer zones remain unused for her/his/its biomass/biofuels operation(s).</p> <p><i>Guidance: Buffer Zones may be managed in order to contribute to the sustained supply of environmental goods and services, in line with their protective function.</i></p>

RSB Criterion	Scope and Requirements	Indicators
<p>Criterion 7d. Ecological corridors shall be protected, restored or created to minimize fragmentation of habitats.</p>	<p>Operators who must comply: Feedstock Producer, Feedstock Processor and Biofuel Producer.</p> <p>7.d.1 Minimum requirements</p> <ul style="list-style-type: none"> <li>▪ Existing ecological corridors within the operational site shall be set-aside and protected with appropriate surrounding buffer zones.</li> <li>▪ Whenever the operational site impairs the connectivity between surrounding ecosystems, ecological corridors shall be created by the operator.</li> </ul> <p>7.d.2 Progress requirements (non small-scale Operators only)</p> <ul style="list-style-type: none"> <li>▪ New ecological corridors shall be created within the operation site if it is surrounded by areas containing wildlife and there is</li> </ul>	<p>7.d.i.1. The participating operator provides objective evidence demonstrating that ecological corridors within the production site(s) of her/his/its biomass/biofuels operation(s) have been identified.</p> <p>7.d.i.2. The participating operator provides objective evidence demonstrating that existing ecological corridors within the production site(s) of her/his/its biomass/biofuels operation(s) are set-aside and protected with appropriate buffer zones.</p> <p>7.d.i.3. The participating operator provides objective evidence demonstrating that, where there is the risk that biomass/biofuels operation(s) could increase the fragmentation of surrounding ecosystems, the spatial layout of the biomass/biofuels operation(s) is adjusted to not cause any additional fragmentation and to maintain connectivity of ecosystems through the creation of ecological corridors within her/his/its biomass/biofuels operation(s).</p> <p>Progress requirements (Non small-scale Operators only)</p> <p>7.d.i.4. The participating operator provides objective evidence demonstrating that specific measures are implemented to establish</p>



	<p>evidence that such corridors would improve connectivity.</p> <ul style="list-style-type: none"> <li>▪ Any ecological corridor destroyed between the 1st of January 2004 and the 31st December 2008 on or near the operation site and for which the Participating Operator is directly accountable shall be restored.</li> </ul>	<p>ecological corridors that facilitate the movement of wildlife in areas surrounding the site(s) of her/his/its biomass/biofuels operation(s).</p> <p>7.d.i.5. The participating operator provides objective evidence demonstrating that ecological corridors, which were destroyed between the 1st of January 2004 and the 31st December 2008, and for which the participating operator is directly accountable, have been restored effectively.</p> <p>7.d.i.6. The participating operator provides objective evidence demonstrating that ecological corridor(s) are effective in protecting, maintaining and/or enhancing the environmental aspect for which they were established.</p>
RSB Criterion	Scope and Requirements	Indicators
<p>Criterion 7e. Biofuel operations shall prevent invasive species from invading areas outside the operation site.</p>	<p>Operators who must comply: Feedstock Producer and Feedstock Processor (including transport).</p> <p>Minimum requirements</p> <ul style="list-style-type: none"> <li>• Participating Operators shall not use any</li> </ul>	<p>7.e.i.1. The participating operator provides objective evidence demonstrating that no species which is officially prohibited at national or regional level because of high risk for invasion or which has been analyzed or recorded (e.g. in the Global Invasive Species Database) as highly invasive under similar conditions (climate, local ecosystems, soil types, etc.) are used by the biomass/biofuels</p>

	<p>species officially prohibited in the country of operation.</p> <ul style="list-style-type: none"> <li>• If the species of interest is not prohibited in the country of operation, Participating Operators shall seek adequate information about the invasiveness of the species to be used for feedstock production, e.g. in the Global Invasive Species Database (GISD)<sup>1</sup>.</li> <li>▪ If the species is recorded as highly invasive under similar conditions (similar climate, and similar local ecosystems, and similar soil types), this species shall not be used.</li> <li>▪ If the species has not been recorded as representing a high risk of invasiveness under similar conditions (climate, local ecosystems, soil type), Participating Operators shall follow the specific steps:</li> </ul>	<p>operation(s) of the participating operator.</p> <p>7.e.i.2. The participating operator provides objective evidence demonstrating that a Weed Risk Assessment has been undertaken analyzing each species cultivated, used, or otherwise handled in the biomass/biofuels operation(s) of the participating operator, the risk of invasion.</p> <p>7.e.i.3. The participating operator provides objective evidence demonstrating that the species used in her/his/its biomass/biofuels operation(s) have no or low risk of invasion in similar conditions (climate, local ecosystems, soil type, etc.).</p> <p>7.e.i.4. If no evidence exists demonstrating that the species used in biomass/biofuels operations have no or low risk of invasion in similar conditions, the participating operator provides objective evidence demonstrating implementation of the IUCN Guidelines on Biofuels and Invasive Species or any applicable government approved guidelines that exist in the country or region of her/his/its biomass/biofuels operation(s).</p>
--	--	--

<sup>1</sup> <http://www.issg.org/database>

	<p>1) During the feedstock selection and development, Participating Operators shall conduct a Weed Risk Assessment (WRA) to identify the potential threat of invasion. If the species is deemed highly invasive after the Weed Risk Assessment, this species shall not be used.</p> <p>2) During feedstock production, Participating Operators shall set up a management plan, which includes cultivation practices that minimize the risks of invasion, immediate mitigation actions (eradication, containment or management) in case of escape of a plant species outside the operation site (possibly through the provision of a specific fund), as well as a monitoring system that checks for escapes and the presence of pests and pathogens outside the operation site.</p> <p>3) During harvesting, processing, transport and trade, Participating Operators shall contain</p>	<p>7.e.i.5. The participating operator provides objective evidence demonstrating that specific measures are implemented which prevent and mitigate the risk of invasion during cultivation, harvesting, processing, transport and trade.</p> <p>7.e.i.6. The participating operator provides objective evidence demonstrating that continuous monitoring is undertaken to detect any invasion outside the operation site, of species cultivated, used or otherwise handled by the biomass/biofuels operation(s).</p> <p>7.e.i.7. The participating operator provides objective evidence demonstrating that in the case of invasion, the participating operator has implemented corrective measures (e.g. eradication, containment or management).</p>
--	--	---

propagules in an appropriate manner on site and during transport.

## **Principle 8: Soil**

### RSB Principle

Principle 8: Biofuels operations shall implement practices that seek to reverse soil degradation and/or maintain soil health.

### RSB Criterion

### Scope and Requirements

### Indicators

Criterion 8a. Operators shall implement practices to maintain or enhance soil physical, chemical, and biological conditions.

Operators who must comply: Feedstock Producer.

8.a.1 Minimum requirements:

- Soil erosion shall be minimized through the design of the feedstock production site and use of sustainable practices in order to enhance soil physical health on a watershed scale.
- Participating Operators shall implement

8.a.i.1. The participating operator provides objective evidence demonstrating that soil erosion is minimized through the design of feedstock production and through the use of specific management practices (e.g. crop rotation, direct planting, maintaining vegetative ground cover, terracing, maintaining or creating tree hedges, etc.).

8.a.i.2. The participating operator provides objective evidence demonstrating an understanding of the soil erosion issues and organic matter content in the biomass/biofuels production area of the operation(s), and the impacts of biomass/biofuels production

	<p>practices to maintain or enhance soil organic matter on the feedstock production site.</p> <ul style="list-style-type: none"> <li>▪ The use of agrarian and forestry residual products for feedstock production, including lignocellulosic material, shall not be at the expense of long-term soil stability and organic matter content.</li> </ul> <p>Where the screening exercise has triggered the need for a Soil Impact Assessment (RSB-GUI-01-008-01), Participating Operators shall:</p> <ul style="list-style-type: none"> <li>▪ Develop a soil management plan as part of the Environmental and Social Management Plan (ESMP).</li> <li>▪ Perform periodic sampling of soil on the feedstock production site to evaluate the effect of the soil management plan on the organic matter content. Where the practices included in the soil management plan are not seen during monitoring to</li> </ul>	<p>on the maintenance or enhancement of soil properties.</p> <p>8.a.i.3. The participating operator provides objective evidence demonstrating implementation of practices to reduce or avoid soil erosion and compaction, and to maintain or improve soil organic matter.</p> <p>8.a.i.4. The participating operator provides objective evidence demonstrating that the use of agricultural and/or forestry residual materials for feedstock production, including lignocellulosic material, have and/or is not affecting the long-term soil stability and organic matter content of the soils in the biomass/biofuels operation(s) of the participating operator.</p> <p>8.a.i.5. The participating operator provides objective evidence demonstrating that within three years of certification, measures to improve soil health, such as Conservation Agriculture practices as defined by the FAO, are implemented, including organic direct planting, permanent soil cover, crop rotation and set aside areas with natural or planted vegetation in order to recover natural fertility and interrupt pest life cycles.</p> <p><b>The following indicators are applicable only if the RSB screening exercise has triggered the need for a Soil Impact</b></p>
--	--	---

	<p>maintain soil organic matter at the optimal level, alternative practices shall be investigated.</p> <p>8.a.2 Progress requirements:</p> <ul style="list-style-type: none"> <li>▪ Participating Operators shall implement measures to improve soil health, such as Conservation Agriculture practices as defined by the FAO, including <ul style="list-style-type: none"> <li>a. Organic direct planting,</li> <li>b. Permanent soil cover,</li> <li>c. Crop rotation, or</li> <li>d. Fallow areas with natural or planted vegetation in order to recover natural fertility and interrupt pest life cycles</li> </ul> </li> </ul>	<p><b>Assessment (RSB-GUI-01-008-01):</b></p> <p>8.a.i.6. The participating operator provides objective evidence demonstrating that a comprehensive Soil Management Plan is in place and implemented as part of the ESMP.</p> <p>8.a.i.7. The participating operator provides objective evidence demonstrating that the Soil Management Plan is based on continuous monitoring (e.g. at minimum once per season and once per crop rotation, etc.) of physical, chemical and biological properties of the soils and other related factors (e.g. rainfall, water availability, run-off and other conditions, climatic conditions, size and layout of the production area, etc.) in and around the biomass/biofuels production area of the operation(s) of the participating operator, as collected through the impact assessment studies or other equivalent source.</p> <p>8.a.i.8. Where the Soil Impact Assessment demonstrated that the soil conditions were already optimal, the participating operator provides objective evidence demonstrating that implementation of Soil Management Plan effectively prevents (and if necessary mitigates) alteration of physical, chemical and/or biological soil properties including soil organic matter. Where the Soil Impact Assessment demonstrated that the soil conditions were below</p>
--	---	--

		optimal, the participating operator provides objective evidence demonstrating that implementation of Soil Management Plan effectively reverts soil degradation and restores physical, chemical and/or biological soil properties to optimal levels.
--	--	---

### **Principle 9: Water**

RSB Principle		
Principle 9. Biofuel operations shall maintain or enhance the quality and quantity of surface and ground water resources, and respect prior formal or customary water rights.		
RSB Criterion	Scope and Requirements	Indicators
Criterion 9a. Biofuel operations shall respect the existing water rights of local and indigenous communities.	<p>Operators who must comply: Feedstock Producer, Feedstock processor, Biofuel Producer.</p> <p>Minimum requirements:</p> <ul style="list-style-type: none"> <li>▪ The use of water for biofuel operations shall not be at the expense of the water needed by the communities that rely on the same</li> </ul>	<p>9.a.i.1. The participating operator provides objective evidence demonstrating that her/his/its biomass/biofuels operation(s) do not negatively affect (i.e. reduce and/or alter in quality or quantity) the water supply to communities which rely on the same water resource(s), as described in the RSB Screening Exercise (RSB-GUI-01-002-02). This may include objective evidence such as:</p> <ul style="list-style-type: none"> <li>➤ identifying the communities which rely on the same water</li> </ul>

	<p>water source(s) for subsistence.</p> <ul style="list-style-type: none"> <li>▪ The Participating Operator shall assess the potential impacts of biofuel operations on water availability within the local community and ecosystems during the screening exercise of the impact assessment process and mitigate any negative impacts.</li> <li>▪ Water resources under legitimate dispute shall not be used for biofuel operations until any legitimate disputes have been settled through negotiated agreements with affected stakeholders following a free, prior and informed consent (as described in 2a and its guidance) enabling process.</li> </ul> <p>Where the screening exercise has triggered the need for a Water Assessment (RSB-GUI-01-009-01), Participating Operators shall:</p> <ul style="list-style-type: none"> <li>▪ identify downstream or groundwater users and determine the formal or customary water rights that exist;</li> </ul>	<p>resource(s) as her/his/its biomass/biofuels operation(s);</p> <ul style="list-style-type: none"> <li>➤ analyzing the water supply to communities which rely on the same water resource(s);</li> <li>➤ analyzing whether the water supply to communities which rely on the same water resource(s) is affected in quality or quantity by her/his/its biomass/biofuels operation(s).</li> </ul> <p>9.a.i.2. The participating operator provides objective evidence demonstrating continuous monitoring of the actual and potential impacts of her/his/its biomass/biofuels operation(s) on the availability of water resource(s) within the local community.</p> <p>9.a.i.3. The participating operator provides objective evidence demonstrating that the use of the water resource(s) for her/his/its biomass/biofuels operation(s) is not legitimately disputed by stakeholders which rely on the same water resource(s).</p> <p>9.a.i.4. The participating operator provides objective evidence demonstrating that the use of the water resource(s) for her/his/its biomass/biofuels operation(s) has been agreed with free, prior, informed consent by stakeholders which rely on the same water resource(s).</p> <p><b>The following indicators are applicable where the screening</b></p>
--	--	--



	<ul style="list-style-type: none"> <li>▪ evaluate and document the potential impacts on formal or customary water rights that exist;</li> <li>▪ respect and protect all formal or customary water rights that exist through the Environmental and Social Management Plan (ESMP) to prevent infringement of such rights. No modification of the existing rights can happen without the Free Prior and Informed Consent (as described in 2a and its guidance) of the parties affected.</li> </ul>	<p><b>exercise has triggered the need for a Water Assessment (RSB-GUI-01-009-01):</b></p> <p>9.a.i.5. If the screening exercise indicated any significant potential impacts of biofuel operations on water availability within the local community, the participating operator provides objective evidence demonstrating that a water rights impact assessment has been completed and any actual or potential negative impacts of her/his/its biomass/biofuels operation(s) on the availability of water resource(s) within the local community have been mitigated.</p> <p>9.a.i.6. The participating operator provides objective evidence demonstrating that the following steps were undertaken:</p> <ul style="list-style-type: none"> <li>➤ identify all stakeholders which rely on the same water resource(s);</li> <li>➤ identify formal water rights relating to the same water resource(s);</li> <li>➤ identify customary water rights relating to the same water resource(s);</li> <li>➤ evaluate and identify measures to fully protect the formal or customary water rights to the same water resource(s) and to</li> </ul>
--	---	---

		<p>prevent infringement and/or compromising of such rights;</p> <ul style="list-style-type: none"> <li>➤ ensure that the formal or customary water rights to the same water resource(s) are only modified based on Free Prior and Informed Consent of stakeholders relating to and/or relying on the same water resource(s); and</li> <li>➤ evaluate and identify measures to continuously monitor and ensure comprehensive implementation of the requirements detailed in indicator 9.a.i.6. as listed above.</li> </ul> <p>9.a.i.7. The participating operator provides objective evidence demonstrating that the outcomes and agreements resulting from the consultation process detailed under indicator 9.a.i.6. are fully implemented.</p>
RSB Criterion	Scope and Requirements	Indicators
<p>Criterion 9b. Biofuel operations shall include a water management plan which aims to use water efficiently and to maintain or enhance the</p>	<p>Operators who must comply: Feedstock producer, Feedstock Processor and Biofuel Producer.</p> <p>9.b.1 Minimum requirements</p> <ul style="list-style-type: none"> <li>▪ Participating Operators shall develop and implement a water management plan and</li> </ul>	<p>9.b.i.1. The participating operator provides objective evidence demonstrating that a water management plan relating to her/his/its biomass/biofuels operation(s) which ensures efficient use of the water resource(s) and that water quality is maintained or enhanced, has been integrated into the ESMP and implemented accordingly.</p>

<p>quality of the water resources that are used for biofuel operations.</p>	<p>integrate it into the Environmental and Social Management Plan (ESMP).</p> <ul style="list-style-type: none"> <li>▪ The water management plan shall be made available to the public, unless limited by national law or international agreements on intellectual property.</li> <li>▪ The water management plan shall be consistent with local rainfall conditions, not contradict any local or regional water management plans, and include the neighboring areas, which receive direct runoff from the operational site. Any negative impact on these neighboring areas shall be mitigated.</li> <li>▪ The Participating Operator shall undertake annual monitoring of the effectiveness of the water management plan.</li> </ul> <p>9.b.2 Progress requirements:</p> <ul style="list-style-type: none"> <li>▪ The water management plan shall include steps for reusing or recycling waste water,</li> </ul>	<p>9.b.i.2. The participating operator provides objective evidence demonstrating that the water management plan relating to her/his/its biomass/biofuels operation(s) is available to the public unless this is limited by national law or international agreements on intellectual property.</p> <p>9.b.i.3. The participating operator provides objective evidence demonstrating that the water management plan relating to her/his/its biomass/biofuels operation(s) is consistent with local conditions of rainfall, water storage, water distribution and water treatment.</p> <p>9.b.i.4. The participating operator provides objective evidence demonstrating that the water management plan is consistent with any other regional or local water management plans.</p> <p>9.b.i.5. The participating operator provides objective evidence demonstrating that the water management plan includes neighboring areas which receive direct water run-off from her/his/its biomass/biofuels operation(s).</p> <p>9.b.i.6. The participating operator provides objective evidence demonstrating that any negative impacts resulting directly or indirectly from her/his/its biomass/biofuels operation(s) on the</p>
---	---	--

	appropriate to the scale and intensity of operation.	<p>water resources of the neighboring areas are mitigated fully.</p> <p>9.b.i.7. The participating operator provides objective evidence demonstrating that the water management plan is reviewed and revised periodically (i.e. at least annually) to assess its effectiveness at achieving its stated objectives.</p> <p>9.b.i.8. The participating operator provides objective evidence demonstrating that best practices measures for reusing or recycling of waste water have been identified and are implemented within three years from initial certification.</p>
RSB Criterion	Scope and Requirements	Indicators
<p>Criterion 9c. Biofuel operations shall not contribute to the depletion of surface or groundwater resources beyond replenishment capacities.</p>	<p>Operators who must comply: Feedstock Producers, Feedstock Processors, Biofuel Producers.</p> <p>9.c.1 Minimum requirements:</p> <ul style="list-style-type: none"> <li>▪ Water used for biofuel operations shall not be withdrawn beyond replenishment capacity of the water table, watercourse, or tank from which the water comes.</li> <li>▪ Irrigated biofuel crops and freshwater-</li> </ul>	<p>9.c.i.1. The participating operator provides objective evidence demonstrating that her/his/its biomass/biofuels operation(s) does/do not contribute to exceeding the replenishment capacity of the water table(s), watercourse(s) or water tank(s) at any time during the year.</p> <p>9.c.i.2. Where freshwater intensive biomass/biofuels operations are established in drought prone areas or where irrigated crops are used in drought prone areas, the participating operator provides objective evidence demonstrating that best available</p>

	<p>intensive biofuel operations systems shall not be established in long-term freshwater-stressed areas, unless the implementation of:</p> <ul style="list-style-type: none"> <li>a. good practices or</li> <li>b. an adequate mitigation process that does not contradict other requirements in this standard</li> </ul> <p>ensures that the water level remains stable.</p> <ul style="list-style-type: none"> <li>▪ Participating Operators shall not withdraw water from natural watercourses to the extent that it modifies its natural course or the physical, chemical and biological equilibrium it had before the beginning of operations.</li> </ul> <p><b>Where the screening exercise has triggered the need for a Water Assessment (RSB-GUI-01-009-01), Participating Operators shall:</b></p> <ul style="list-style-type: none"> <li>▪ Identify critical aquifer recharge areas, replenishment capacities of local water</li> </ul>	<p>practices are used, and that measures are implemented to mitigate changes in water quantity and quality.</p> <p>9.c.i.3. In drought-prone areas, irrigation is not used unless the operator can demonstrate objective evidence that the level of the water resource used remains stable.</p> <p>9.c.i.4. The participating operator provides objective evidence demonstrating that the use of water from natural water bodies for her/his/its biomass/biofuels operation(s) does not result in a permanent change in its natural course or change the physical, chemical or biological equilibrium the water body had before the biomass/biofuels operation(s) started.</p> <p>9.c.i.5. The participating operator provides objective evidence demonstrating that efficiency of water use has improved within three years of certification through implementation measures to conserve water.</p> <p><b>The following indicators are applicable where the screening exercise has triggered the need for a Water Assessment (RSB-GUI-01-009-01):</b></p> <p>9.c.i.6. The participating operator provides objective evidence demonstrating that critical aquifer recharge areas, replenishment</p>
--	---	---

	<p>tables, watercourses, and ecosystem needs. The potential impacts of biofuel operations on any of these aspects shall be evaluated, and any negative impacts mitigated.</p> <ul style="list-style-type: none"> <li>Define the use and share of water resources for biofuel operations in agreement with local experts and the community; any water user committees shall be consulted.</li> </ul> <p>9.c.2 Progress requirements:</p> <ul style="list-style-type: none"> <li>The Participating Operator shall demonstrate commitment to the improvement of water efficiency over time through the implementation of water-saving practices.</li> </ul>	<p>capacities of local water tables, watercourses, and ecosystem needs have been identified and evaluated.</p> <p>9.c.i.7 The participating operator provides objective evidence demonstrating that any potential negative impacts of her/his/its biomass/biofuels operation(s) on local water tables, watercourses, and ecosystem needs will be mitigated.</p> <p>9.c.i.8 The participating operator provides objective evidence that the use and sharing of water resources for biomass/biofuels operation(s) has been agreed upon with local experts and the community, and that all water user committees have been consulted.</p>
RSB Criterion	Scope and Requirements	Indicators
Criterion 9d. Biofuel operations shall contribute to the	Operators who must comply: Feedstock Producer, Feedstock Processor and Biofuel Producer.	9.d.i.1. The participating operator provides objective evidence demonstrating that biofuels are not produced or processed in critical aquifer recharge areas, without official authorization from

<p>enhancement or maintaining of the quality of the surface and groundwater resources.</p>	<p>9.d.1 Minimum requirements:</p> <ul style="list-style-type: none"> <li>▪ Biofuel operations shall not occur on a critical aquifer recharge area without a specific authorization from legal authorities.</li> <li>▪ Participating Operators shall implement the best available practices which aim to maintain or enhance the quality of surface and ground water resources that are used for biofuel operations to the level deemed optimal for the local system for sustained water supply, ecosystem functioning and ecological services.</li> <li>▪ Adequate precautions shall be taken to contain effluents and avoid runoffs and contamination of surface and ground water resources, in particular from chemicals and biological agents.</li> <li>▪ Buffer zones shall be set between the operation site and surface or ground water resources.</li> </ul> <p><b>Where the screening exercise has triggered</b></p>	<p>relevant legal authorities.</p> <p>9.d.i.2. The participating operator provides objective evidence demonstrating that best available practices to maintain or enhance the quality of water resources to their optimal level are implemented in her/his/its operation(s).</p> <p>9.d.i.3. The participating operator provides objective evidence demonstrating that sufficient precautions have been taken to contain effluents from her/his/its biomass/biofuels operation(s) and prevent contamination of water resources. This includes treatment and/or recycling of waste water and the establishment of buffer zones.</p> <p>9.d.i.4. The participating operator provides objective evidence demonstrating that emergency plans and measures are in place, known and implemented in her/his/its operation(s) in case accidental contamination of water resources is identified.</p> <p>9.d.i.5. For biomass/biofuels operations where degradation of water resources existed before said operation was accepted as a participating operator or part of a participating operator, the participating operator provides objective evidence demonstrating that within three years of certification measures to reverse the</p>
--	---	--

**the need for a Water Assessment (RSB-GUI-01-009-01), Participating Operators shall:**

- determine the optimal water quality level required to sustain the system, taking into account local economic, climatic, hydrologic and ecologic conditions.

9.d.2 Progress requirements:

- For existing operations, degradation of water resources that existed prior to certification and for which the Participating Operator is directly accountable shall be reversed. Wherever applicable, operators (except small-scale operators) shall participate in projects that aim to improve water quality at a watershed scale.
- Waste water or runoff that contains potential organic and mineral contaminants shall be treated or recycled to prevent any negative impact on humans, wildlife, and natural compartments (water, soil).

degradation of water resources have been implemented and that the participating operator has taken part in projects to improve water quality at the watershed level.

9.d.i.6 The participating operator provides objective evidence that waste water or runoff with organic or mineral contaminants are treated, recycled or properly disposed of within three years of certification.

**The following indicators are applicable where the screening exercise has triggered the need for a Water Assessment (RSB-GUI-01-009-01):**

9.d.i.7. The participating operator provides objective evidence that she/he/it has conducted studies to determine the optimal water quality level required to sustain the system, taking into account local economic, climatic, hydrologic and ecologic conditions.



## Principle 10: Air

RSB Principle		
Principle 10. Air pollution from biofuel operations shall be minimized along the supply chain.		
RSB Criterion	Scope and Requirements	Indicators
<p>Criterion 10a. Air pollution emission sources from biofuel operations shall be identified, and air pollutant emissions minimized through an air management plan.</p>	<p>Operators who must comply: Feedstock Processor and Biofuel Producer.</p> <p>10.a.1 Minimum requirements:</p> <ul style="list-style-type: none"> <li>▪ An emission control plan appropriate to the scale and intensity of operations shall be included as part of the Environmental and Social Management Plan (ESMP) that identifies major air pollutants including carbon monoxide, nitrogen oxides, volatile organic compounds, particulate matter, sulphur compounds, dioxins and other substances recognised as potentially harmful for the environment or human</li> </ul>	<p>10.a.i.1. The participating operator provides objective evidence demonstrating that an emission control plan is included in the ESMP and implemented, which:</p> <ul style="list-style-type: none"> <li>➤ identifies the pollutants released at the biomass/biofuel operations, including carbon monoxide, nitrogen oxides, volatile organic compounds, particulate matter, sulfur compounds, dioxins and other substances recognized as potentially harmful to the environment and/or human health;</li> <li>➤ identifies all sources of air pollutions in the biomass/biofuel operations, and the amount and nature of emissions per point source;</li> <li>➤ identifies measures implemented to mitigate air pollution, or</li> </ul>

	<p>health. The plan shall identify all potential air pollution sources and describe their nature. The plan shall describe any air pollution mitigation strategies that are employed, or else the rationale for not utilizing such strategies.</p> <p>10.a.2 Progress requirements:</p> <ul style="list-style-type: none"> <li>▪ The Participating Operator shall investigate and, whenever possible in the local context, implement Best Available Technology (BAT) to reduce air pollution, appropriate to the scale and intensity of operation.</li> </ul>	<p>else provides the rationale for not utilizing such strategies;</p> <ul style="list-style-type: none"> <li>➤ monitors the effectiveness of the measures identified and implemented to mitigate air pollution;</li> </ul> <p>10.a.i.2. The participating operator provides objective evidence demonstrating that Best Available Technology (BAT) to prevent or reduce air pollution and mitigate its effects and associated risks, has been identified and implemented within three years of certification.</p>
RSB Criterion	Scope and Requirements	Indicators
<p>Criterion 10b. Biofuel operations shall avoid and, where possible, eliminate open-air burning of residues, wastes or by-products, or open air burning to</p>	<p>Operators who must comply: Feedstock Producer, Feedstock Processor</p> <p>10.b.1 Minimum requirements:</p> <ul style="list-style-type: none"> <li>▪ A plan shall be put in place to phase out any open-air burning of leaves, straw and other agricultural residues within three years</li> </ul>	<p>Where open-air burning of residues, wastes or by-products occurs, or where open-air burning occurs to clear the land:</p> <p>10.b.i.1. The participating operator provides objective evidence demonstrating that a plan is implemented to phase out open-air burning of residues, wastes or by-products and open air burning to clear the land within three years from certification, except in the</p>

<p>clear the land.</p>	<p>following certification. If workers' health and safety is at stake or when no viable alternative is available or affordable in the local context, if burning may prevent natural fires, or if the cultivation of the crop periodically requires burning for viability in the long term without any equivalent alternatives, limited open-air burning practices may occur.</p> <p>10.b.2 Progress requirements:</p> <ul style="list-style-type: none"> <li>▪ Open air burning of agricultural residues and by-products shall not occur following the phase-out plan (10.b.1).</li> </ul>	<p>following cases:</p> <ul style="list-style-type: none"> <li>➤ where workers' health and safety is at stake; or</li> <li>➤ when no viable alternative is available or affordable in the local context; or</li> <li>➤ if burning may prevent natural fires; or</li> <li>➤ if the cultivation of the crop periodically requires burning for viability in the long term without any equivalent alternatives.</li> </ul> <p>10.b.i.2. In the instances listed in 10.b.i.1 under which limited open air burning is allowed, the participating operator provides objective evidence demonstrating that no alternatives exist which are socially, environmentally and economically feasible.</p> <p>10.b.1.3. The participating operator provides objective evidence that no open air burning of agricultural residues, wastes or by-products, or open-air burning for land clearing takes place within three years of certification, except under the specific instances described in 10.b.i.1.</p>
------------------------	--	---

## Principle 11: Use of Technology, Inputs, and Management of Waste

### RSB Principle

Principle 11. The use of technologies in biofuel operations shall seek to maximize production efficiency and social and environmental performance, and minimize the risk of damages to the environment and people.

RSB Criterion	Scope and Requirements	Indicators
<p>Criterion 11a. Information on the use of technologies in biofuel operations shall be fully available, unless limited by national law or international agreements on intellectual property.</p>	<p>Operators who must comply: Feedstock Producer, Feedstock Processor and Biofuel Producer.</p> <p>Minimum requirements</p> <ul style="list-style-type: none"> <li>▪ When complying with and auditing against this criterion, proprietary technology shall be protected from competitors and intellectual property rights shall be respected</li> <li>▪ The Participating Operator shall disclose technologies with hazardous or potentially hazardous effects when such technology is</li> </ul>	<p>11.a.i.1. The participating operator provides documented evidence demonstrating that information on the use of technologies in her/his/its biomass/biofuels operation(s) is publicly available (except for information which is protected by national law or international agreements on intellectual property).</p> <p>11.a.i.2. The participating operator provides documented evidence demonstrating that disclosure of information includes at minimum the actual or potential risks identified, and any actual or potential impacts on human health and the environment.</p>

	used, and make this information available to the public upon request.	
RSB Criterion	Scope and Requirements	Indicators
<p>Criterion 11b. The technologies used in biofuel operations including genetically modified: plants, micro-organisms, and algae, shall minimize the risk of damages to environment and people, and improve environmental and/or social performance over the long term.</p>	<p>Operators who must comply: Feedstock Producer, Feedstock Processor and Biofuel Producer.</p> <p>Minimum requirements</p> <ul style="list-style-type: none"> <li>▪ The use of genetically modified organisms shall follow relevant national or international guidelines, laws and agreements, crop-specific stewardship systems, and local and community coexistence agreements or understandings.</li> <li>▪ For new operations, Participating Operators shall provide evidence that the hazardous technologies they use do not contradict any of the RSB principles and criteria before the beginning of operations.</li> </ul>	<p>11.b.i.1. The participating operator provides objective evidence demonstrating that a risk assessment in relation to the use of technologies, including GMOs, has been conducted prior to certification, which:</p> <ul style="list-style-type: none"> <li>➤ identifies all technologies of her/his/its operation(s) which actually or potentially pose a social, environmental and/or economic risk to stakeholders, communities, industries, society at large and the environment;</li> <li>➤ identifies all impacts which these identified technologies actually and potentially have on stakeholders, communities, industries, society at large and the environment;</li> <li>➤ demonstrates the social and environmental benefits brought by these identified technologies compared to the other alternatives;</li> <li>➤ identifies measures to avoid and/or mitigate actual and potentially negative impacts of these identified technologies of her/his/its operation(s) on stakeholders, communities, industries,</li> </ul>

	<ul style="list-style-type: none"> <li>▪ Participating Operators using GMOs shall take measures to prevent migration of genetically modified material and shall cooperate with neighbors, regulatory and conservation authorities, and local stakeholders to implement monitoring and preventative measures. Crop-specific and technology-specific mitigation strategies shall be utilized.</li> <li>▪ The Biosafety Clearinghouse established under the Cartagena Protocol on Biosafety, or any other such clearinghouse established by law, shall be consulted before providing information about specific GMOs, including related risk and countries' decisions regarding that technology.</li> <li>▪ For new operations, feedstock producers shall use indigenous crops whenever alternative crops reduce yield and/or environmental and/or social performance compared to indigenous crops.</li> </ul>	<p>society at large and the environment; and</p> <ul style="list-style-type: none"> <li>➤ identifies measures to systematically monitor these identified factors and aspects of the biomass/biofuels operation(s), their actual and potential impacts, as well as the measures identified and implemented to avoid or mitigate associated risks and impacts, and the effectiveness of these measures.</li> </ul> <p>11.b.i.2. The identified measures (11.b.i.1.) to avoid and/or mitigate negative impacts of the technologies use in biomass/biofuel operation(s) on stakeholders, communities, industries, society at large and the environment are implemented.</p> <p>11.b.i.3. The participating operator provides objective evidence demonstrating that any use of technologies identified as potentially hazardous for people or the environment is used in compliance with national laws and internationally accepted scientific protocols and does not contradict any of the RSB Principles and Criteria.</p> <p>11.b.i.4. When using Genetically Modified Organisms, the participating operator provides objective evidence demonstrating that such use follows national or international guidelines, laws and agreements, crop-specific stewardship systems, and local and community coexistence agreements or understandings.</p>
--	---	--

11.b.i.5. If Genetically Modified Organisms are used, the Operator has implemented measures to prevent migration of genetically modified material outside of the operation site.

11.b.i.6. If Genetically Modified Organisms are used, the participating operator provides objective evidence demonstrating cooperation with neighbors, regulatory and conservation authorities, and local stakeholders in the monitoring of the impacts of GMOs and measures to prevent negative impacts on stakeholders, communities, industries, society at large and the environment.

11.b.i.7. If Genetically Modified Organisms are used, the participating operator provides objective evidence demonstrating that the Biosafety Clearinghouse established under the Cartagena Protocol on Biosafety has been consulted to identify country specific laws, decisions and declarations that apply to the GMOs in use by the participating operator.

11.b.i.8. Operators using non-native crops have documented evidence indicating that an equivalent native crop could not provide the same function with higher yield and/or environmental and/or social performance.

RSB Criterion	Scope and Requirements	Indicators
<p>Criterion 11c. Micro-organisms used in biofuel operations which may represent a risk to the environment or people shall be adequately contained to prevent release into the environment.</p>	<p>Operators who must comply: Feedstock Producer, Feedstock Processor and Biofuel Producer.</p> <p>Minimum requirements</p> <ul style="list-style-type: none"> <li>▪ In no case shall genetically modified micro-organisms or any micro-organisms that pose a risk (pathogenic, mutagenic, contaminant, etc.) to human health or the environment be released outside the processing/production unit. Any such organism used for processing shall be destroyed or adequately neutralised (i.e. loss of any potentially hazardous character) before being disposed of.</li> <li>▪ Participating Operators using such technologies shall include as part of their ESMP a plan that includes adequate monitoring and an emergency procedure in case of accidental dissemination of any</li> </ul>	<p>11.c.i.1. Participating operators who use any micro-organisms that pose a risk (pathogenic, mutagenic, contaminant, etc.) to human health or the environment provide objective evidence demonstrating that measures have been developed and implemented, and are monitored for effectiveness to:</p> <ul style="list-style-type: none"> <li>➤ prevent release of such organisms outside the processing/production unit;</li> <li>➤ ensure that such organisms are destroyed or neutralized before disposal; and</li> <li>➤ address any possible emergency and accidental release of such organisms and have measures in place to mitigate, and if necessary, compensate any impacts of accidental release of any micro-organisms that pose a risk (pathogenic, mutagenic, contaminant, etc.) to human health or the environment.</li> </ul> <p>11.c.i.2. The participating operator provides objective evidence demonstrating that personnel involved in her/his/its biomass/biofuels operation(s) have been trained and are experienced in storage, handling, use, disposal and emergency procedures for any micro-</p>



	such micro-organisms into the environment.	<p>organisms that pose a risk (pathogenic, mutagenic, contaminant, etc.) to human health or the environment.</p> <p>11.c.i.3. The participating operator provides objective proof demonstrating that there is no evidence that any micro-organisms that pose a risk (pathogenic, mutagenic, contaminant, etc.) to human health or the environment have been detected outside processing/production units, and/or in areas surrounding her/his/its operation(s).</p> <p>11.c.i.4 The participating operator provides objective evidence demonstrating that an adequate monitoring plan and emergency procedure in case of accidental dissemination of such micro-organisms is described in her/his/its Environmental and Social Management Plan (ESMP).</p>
RSB Criterion	Scope and Requirements	Indicators
Criterion 11d. Good practices shall be implemented for the storage, handling, use, and disposal of biofuels	<p>Operators who must comply: Feedstock Producer, Feedstock Processor and Biofuel Producer.</p> <p>11.d.1 Minimum requirements</p> <ul style="list-style-type: none"> <li>▪ None of the chemicals recorded in the WHO's 1a and 1b lists shall be used. The</li> </ul>	<p>11.d.i.1. The participating operator provides objective evidence demonstrating that there is no storage or use of any chemicals recorded in the WHO's 1a and 1b lists.</p> <p>11.d.i.2. The participating operator has listed in the ESMP the type and annual volume used of chemicals listed in the Stockholm</p>

<p>and chemicals.</p>	<p>use of chemicals recorded in Annex III of the Rotterdam Convention and in the Stockholm Convention on Persistent Organic Pollutants (POPs) shall be listed (type and annual volume used) and a plan to phase out any such chemical over the three years following certification shall be described in the ESMP.</p> <ul style="list-style-type: none"> <li>▪ Manufacturer's safety instructions for the storage, handling, use, and disposal of chemicals shall be followed.</li> <li>▪ The use of ground or aerial pesticides shall comply with the FAO's Guidelines on Good Practices for Ground and Aerial Applications of Pesticides. Any chemical used in biofuel operations shall be in accordance with the manufacturer's safety instructions.</li> </ul> <p>11.d.2 Progress requirements</p> <ul style="list-style-type: none"> <li>▪ None of the chemicals recorded in Annex III of the Rotterdam Convention or in the Stockholm Convention on Persistent Organic Pollutants shall be used within three years after certification.</li> </ul>	<p>Convention or in Annex III of the Rotterdam Convention and provides objective evidence demonstrating that a plan to eliminate the use of such chemicals within three years following the first certification is and implemented.</p> <p>11.d.i.3. The participating operator provides objective evidence that all staff and contractors involved with chemical use receive training in storage, handling, use, disposal and emergency procedures following accidental spillages.</p> <p>11.d.i.4. The participating operator provides objective evidence that manufacturer's safety instructions for the storage, handling, use and disposal of chemicals are strictly implemented.</p> <p>11.d.i.5. The participating operator provides objective evidence that containers for chemicals are washed and disposed of in an environmentally appropriate way.</p> <p>11.d.i.6. The participating operator provides objective evidence that chemicals are disposed, recycled or destroyed in a manner that minimizes the risk of accidents and potential negative impacts on human health and on the environment.</p> <p>11.d.i.7. The participating operator provides objective evidence that measures are in place to reduce the risk of accidents or spills during</p>
-----------------------	---	---

		<p>transportation of chemicals to and within the operations and applicable health, environmental and safety precautions are implemented. (e.g. safely transported using appropriate equipment).</p> <p>11.d.i.8. The participating operator provides objective evidence that the application of pesticides follows the FAO Guidelines on Good Practice for Aerial/Ground Application of Pesticides, or justified equivalent.</p> <p>Progress requirement</p> <p>11.d.i.9. The participating operator provides objective evidence that there is no storage or use of any chemicals listed in the Stockholm Convention or Annex III of the Rotterdam Convention within three years of certification.</p>
RSB Criterion	Scope and Requirements	Indicators
<p>Criterion 11e. Residues, wastes and byproducts from feedstock processing and biofuel production units shall be managed such that soil, water and</p>	<p>Operators who must comply: Feedstock Processor and Biofuel Producer.</p> <p>11.e.1 Minimum requirements</p> <ul style="list-style-type: none"> <li>▪ A waste and byproduct management plan shall be included in the ESMP to ensure that wastes and byproducts are handled and/or disposed of in appropriate</li> </ul>	<p>11.e.i.1. The participating operator provides objective evidence demonstrating that a residue, waste and byproduct management plan, which details how wastes and byproducts are to be handled, destroyed and/or disposed of in appropriate containers to prevent environmental contamination and damage to human health, is included in the ESMP and implemented.</p>

<p>air physical, chemical, and biological conditions are not damaged.</p>	<p>containers and to prevent any environmental contamination and damage to human health.</p> <ul style="list-style-type: none"> <li>▪ These products shall not be in direct contact with soils, water sources and air outside the processing and production units unless their innocuousness to the environment and people is officially stated by manufacturers or the country or regional (e.g. EU, ASEAN, ALENA) guidelines. In all other cases, handling and disposal must follow the manufacturer's recommendation and the country or regional (e.g. EU, ASEAN, ALENA) guidelines.</li> <li>▪ For new and expanding operations, the design of operations shall integrate the necessary infrastructure for safe burning of processing waste and by-products.</li> <li>▪ For existing operations, a strategy shall be set to develop the necessary infrastructures for safe burning of waste and by-products.</li> </ul> <p>11.e.2 Progress requirements</p> <ul style="list-style-type: none"> <li>▪ Measures shall be taken to implement clean and efficient processes for conversion of residues, wastes or by-</li> </ul>	<p>11.e.i.2. The participating operator provides objective evidence demonstrating that residues, wastes and by-products are not in direct contact with soils, water sources and air outside the processing and production units unless their innocuousness to the environment and people is officially stated by manufacturers or the country or regional (e.g. EU, ASEAN, ALENA) guidelines.</p> <p>11.e.i.3. The participating operator provides objective evidence demonstrating that handling and disposal of non-innocuous residues, wastes and byproducts, follows manufacturer's recommendations and the country or regional (e.g. EU, ASEAN, ALENA) guidelines.</p> <p>11.e.i.4. The participating operator provides objective evidence demonstrating that all staff and contractors involved with handling, storage, disposal or use of residues, wastes and byproducts receive training in storage, handling, use, disposal and emergency procedures following accidental spillages.</p> <p>11.e.i.5. For operations started after the 1st of January 2009, there exists the proper infrastructure for the safe burning of any residue, waste and by-product or, for operations started prior to the 1st of January 2009, the participating operator has a strategy in place to</p>
---	--	---

	<p>products into energy appropriate to the scale and intensity of operation. Such processes shall always occur in an appropriate facility to minimise air pollution from substances recognised as potentially harmful for the environment or human health. Solid residues from fermentation or burning shall be disposed of such that soil and water conditions are not damaged or according to national regulations.</p> <ul style="list-style-type: none"> <li>▪ For others than small-scale operators, by-products or wastes shall also be reused by the processing/production unit or transferred to other sectors whenever their use may improve the overall system's energy balance, greenhouse gas emissions, and/or economic viability without impairing the other principles and criteria in this standard.</li> </ul>	<p>develop such infrastructures.</p> <p><b>Progress requirements</b></p> <p>11.e.i.6. The participating operator provides objective evidence demonstrating that within three years of certification all solid residues from burning or fermentation of wastes or byproducts are disposed of such that soil and water conditions are not damaged.</p> <p>11.e.i.7. The participating operator provides objective evidence demonstrating that within three years of certification residues, wastes or by-products are recycled or processed (e.g. burning, fermentation, gasification, etc.) to produce gas, electricity or heat, or in some other way improve the overall system efficiency, with appropriate license and within an appropriate facility, or transferred to other sectors when their transfer may improve the overall system's energy balance, greenhouse gas emissions, and/or economic viability without impairing the other principles and criteria in this standard.</p>
--	---	---

## Principle 12: Land Rights

RSB requirement		
Principle 12. Biofuel operations shall respect land rights and land use rights.		
RSB Criterion	Scope and Requirements	Indicators
<p>Criterion 12a. Existing land rights and land use rights, both formal and informal, shall be assessed, documented, and established. The right to use land for biofuel operations shall be established only when these rights are determined.</p>	<p>Operators who must comply: Feedstock Producer and Feedstock Processor</p> <p>Minimum requirements</p> <ul style="list-style-type: none"> <li>▪ Where the screening exercise of the RSB impact assessment process reveals a negative impact to existing land rights and land use rights by biofuel operations, the Participating Operator shall conduct a Land Rights Assessment (RSB-GUI-01-012-01).</li> <li>▪ Land under legitimate dispute shall not be used for biofuel operations until any legitimate disputes have been settled</li> </ul>	<p>12.a.i.1. The participating operator provides objective evidence demonstrating that the formal and customary (traditional) land rights and land use rights relating to her/his/its biomass/biofuels operation(s) are not disputed.</p> <p>12.a.i.2. Stakeholders confirm that the formal and any customary (traditional) land rights and land use rights relating to the biomass/biofuels operation(s) of the participating operator are not disputed.</p> <p>12.a.i.3. The participating operator provides objective evidence demonstrating that land rights and land use rights have been assessed and established during the RSB Screening Exercise (RSB-GUI-01-002-02).</p>

	through Free, Prior and Informed Consent and negotiated agreements with affected land users.	<p><b>The following indicators are applicable where the screening exercise has triggered the need for a Land Rights Assessment (RSB-GUI-01-012-01):</b></p> <p>12.a.i.4. The participating operator provides objective evidence demonstrating that the formal and customary (traditional) land rights and land use rights have been comprehensively assessed, established and documented following the guidelines detailed in the RSB Land Rights Assessment (RSB-GUI-01-012-01).</p> <p>12.a.i.5. Stakeholders confirm that the formal and customary (traditional) land rights and land use rights relating to the biomass/biofuels operation(s) of the participating operator have been established.</p>
<b>RSB Criterion</b>	<b>Scope and Requirements</b>	<b>Indicators</b>
Criterion 12b. Free, Prior, and Informed Consent shall form the basis for all negotiated agreements for any compensation, acquisition, or voluntary relinquishment of rights by	<p>Operators who must comply: Feedstock Producer, Feedstock Processor and Biofuel Producer.</p> <p>Minimum requirements</p> <ul style="list-style-type: none"> <li>▪ No involuntary resettlement shall be allowed for biofuel operations.</li> </ul>	12.b.i.1. The participating operator provides objective evidence that all decisions regarding land rights and land use rights related to her/his/its biomass/biofuels operation(s) were and are based on the Free, Prior, and Informed Consent of all stakeholders involved, following the guidance in the Impact Assessment Guidelines (RSB-GUI-01-002-01).

<p>land users or owners for biofuel operations.</p>	<ul style="list-style-type: none"> <li>▪ The Impact Assessment Guidelines (RSB-GUI-01-002-01) shall be referred to for guidance on Free Prior and Informed Consent.</li> <li>▪ Where land rights and land use rights are voluntarily relinquished, and/or acquired on a willing seller-willing buyer basis, local people shall be fairly, equitably and timely compensated.</li> <li>▪ Compensation for voluntary relinquishment shall include appropriate balancing measures needed to preserve the ability of the persons concerned to sustain their livelihoods in an autonomous and dignified manner.</li> <li>▪ Independent, qualified land valuation specialists shall be used for valuing all land and asset values.</li> <li>▪ Where land is to be sold it shall be done on a willing-seller/willing-buyer basis.</li> <li>▪ Coercion to alter existing land rights or land use rights shall not be allowed in biofuel</li> </ul>	<p>12.b.i.2. Stakeholders confirm that they had unrestricted access to independent legal, economic, social, environmental and/or cultural advice in support of their Free, Prior, and Informed Consent to decisions regarding land rights and land use rights related to the biomass/biofuels operation(s) of the participating operator.</p> <p>12.b.i.3. The participating operator provides objective evidence demonstrating that there has been no forced or involuntary resettlement or relinquishment of land rights for the purpose of her/his/its biomass/biofuels operation(s).</p> <p>12.b.i.4. The participating operator provides objective evidence demonstrating that valuing all land and asset values is done by qualified land valuation specialists and that all selling or buying of land by the participating operator is done on a willing-seller/willing-buyer basis (i.e. based on Free, Prior, and Informed Consent).</p> <p>12.b.i.5. Stakeholders confirm that all relinquishment(s) of land rights and/or land use rights related to the biomass/biofuels operation(s) of the participating operator was/were fairly, equitably and timely compensated.</p> <p>12.b.i.6. Stakeholders confirm that no coercion to alter existing land rights or land use rights related to the biomass/biofuels operation(s)</p>
---	---	---



	<p>operations.</p> <ul style="list-style-type: none"> <li>▪ Where the rule of law is not adequately applied, international and regional legal bodies shall be consulted for rulings and information on disputes.</li> <li>▪ If there are disputes about the tenure agreements of the land among stakeholders, biofuel operations shall not be approved.</li> </ul>	<p>of the participating operator took place.</p> <p>12.b.i.7. The participating operator provides objective evidence demonstrating that no land rights and/or land use rights disputes related to her/his/its biomass/biofuels operation(s) are pending unresolved.</p>
--	--	---