

## IDB Biofuels Sustainability Scorecard

<b>Country/ Organization</b>	Inter-American Development Bank (IDB)	<b>Year and status</b>	Version two (September 2009)
<b>Initiative</b>	IDB Biofuels Sustainability Scorecard		
<b>Membership</b>	-		
<b>Governing bodies</b>	-		
<b>Type and implementation approach</b>	Scorecard for use in: project development; project screening; initial analysis; due diligence; and investment approvals	<b>Geographical coverage</b>	Global
<b>Feedstock(s) covered</b>	All	<b>Supply chain coverage</b>	Biofuel feedstock production, processing and biofuel transportation/distribution
<b>Type(s) of biofuels covered</b>	All		
<b>Link</b>	<a href="http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=2152616">http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=2152616</a>		

### Overview<sup>1</sup>.

The Sustainable Energy and Climate Change Initiative (SECCI) and the Structured and Corporate Finance Department (SCF) of the Inter-American Development Bank (IDB) created the IDB Biofuels Sustainability Scorecard based on the sustainability criteria of the Roundtable on Sustainable Biofuels (RSB).

In September 2008, the IDB launched the first version of the scorecard. One year later, an updated version was launched. As stressed by the IDB, as the scientific debate around sustainability issues in biofuel production continues to evolve, the Scorecard should be seen as a work-in-progress and will continue to be updated and revised as needed.

The main objective of the Scorecard is to encourage higher levels of sustainability in biofuel projects, by providing a tool to think through the range of complex issues associated with biofuel production from the field to the tank.

The Scorecard has been designed specifically for the private sector at the project level, but could be used more broadly as a conceptual tool to outline criteria that should be assessed in biofuel development. The Scorecard has been designed to be useful for project developers, including:

- people at all stages of production;
- financial institutions;

<sup>1</sup> The information included in this section was excerpted and adapted directly from the IDB Biofuels Sustainability Scorecard document: <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=2152616>

- private investors;
- and environmental and social safeguard reviewers.

The Scorecard, which covers all types of biofuels and feedstocks, has been designed to be used at multiple stages of the project lifecycle:

- project development;
- project screening;
- initial analysis;
- due diligence;
- and investment approvals.

The Scorecard includes general, environmental, and social criteria. It starts with general information and proceeds to more specific through the cultivation, production, and distribution stages of biofuel production.

The Scorecard will not provide a final score, but rather generate a colour map (ranging from bright green – excellent – to red – unsatisfactory) so that the user can see their performance across different areas and have a better idea of areas and elements that may require further analysis and improvement. The categories represent a mix of qualitative and quantitative indicators, since many of the categories cannot be quantified over a range of feedstocks and projects.

For citation:

Ismail, M., & Rossi, A. 2010. *A Compilation of Bioenergy Sustainability Initiatives*. Rome: Food and Agriculture Organization of the UN (FAO).

The authors would like to thank Onyekachi Nwankwo (Volunteer) for his valuable contribution.

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ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
<b>1. ENVIRONMENTAL</b>			
1.1 Land-use change (direct and/or indirect)	Environmental Project Site	– See category <a href="#">“Carbon emissions from direct land use change”</a> at aspect/issue 1.3 Productive capacity of land.	
		– See category <a href="#">Impact on food security</a> on <b>impact of land use change on the availability of food</b> at aspect/issue 4.1 Food availability.	
1.2 Biodiversity and ecosystem services  <a href="#">Back to table of contents</a>	Environmental Project Site	– <b>Biodiversity</b> This category seeks to address the impacts of a project on the biodiversity of the area, including natural habitats and cultural sites, where it will be located. For additional information please review section B.9. Natural Habitats and Cultural Sites* of IDB’s Environment and Safeguards Compliance Policy.  <i>*B.9. Natural Habitats and Cultural Sites</i> <i>The Bank will not support operations that, in its opinion, significantly convert or degrade critical natural habitats or that damage critical cultural sites. Whenever feasible, Bank-financed operations and activities will be sited on lands already converted. In addition, the Bank will not support operations involving the significant conversion or degradation of natural habitats as defined in this</i>	<ul style="list-style-type: none"> <li>• No conservation value: the proposed project area has been inventoried, and there are no documented critical natural habitats, natural habitats or other important conservation values on the site. This category only applies for projects located on industrial sites and/or feedstocks that are derived from a waste stream.</li> <li>• Moderate conservation value: include areas that are recognized as important for the conservation of regional biodiversity. These areas include the WWF Amazon Priority Sites, TNC Conservation Portfolio Sites, Birdlife Endemic Bird Areas, and CI Hotspots.</li> <li>• Natural habitat: biophysical environments where:               <ol style="list-style-type: none"> <li>(i) the ecosystems' biological communities are formed largely by native plant and animal species; and</li> <li>(ii) human activity has not essentially modified the area's primary ecological functions.</li> </ol> </li> </ul>

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ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
<p>1.2 Biodiversity and ecosystem services (continued)</p> <p><a href="#">Back to table of contents</a></p>	<p>Environmental – Project Site (continued)</p>	<p><i>policy, unless:</i></p> <p>(i) <i>there are no feasible alternatives acceptable to the Bank;</i></p> <p>(ii) <i>comprehensive analysis demonstrates that overall benefits from the operation substantially outweigh the environmental costs; and</i></p> <p>(iii) <i>mitigation and compensation measures acceptable to the Bank including, as appropriate, minimizing habitat loss and establishing and maintaining an ecologically similar protected area that is adequately funded, implemented and monitored.</i></p> <p><i>The Bank will not support operations that introduce invasive species. The EA process will identify and assess impacts on critical cultural sites. For other non-critical cultural sites or artifacts, appropriate measures will be taken to protect their integrity and function. For operations where archeological or historical artifacts can be expected to be found either during construction or operations, the borrower will prepare and implement chance find procedures based on internationally accepted practices.</i></p> <p>[Also relevant to aspect(s)/issue(s): <a href="#">2.8 Social sustainability (cross-cutting).</a>]</p> <p><b><u>Invasive Species</u></b></p>	<ul style="list-style-type: none"> <li>• Critical natural habitat: areas that may be:               <ul style="list-style-type: none"> <li>(a) highly suitable for biodiversity conservation;</li> <li>(b) crucial for critically endangered, endangered, vulnerable or near threatened species listed as such in the IUCN Red List of Endangered Species; or</li> <li>(c) critical for the viability of migratory routes of migratory species. Critical natural habitats include                   <ul style="list-style-type: none"> <li>(i) existing protected areas, areas officially proposed by governments for protection or sites that maintain conditions that are vital for the viability of the aforementioned areas; and</li> <li>(ii) unprotected areas of known high conservation value. Existing protected areas may include reserves that meet the criteria of the IUCN Protected Area Management Categories I through VI; World Heritage Sites; areas protected under the RAMSAR Convention on Wetlands; core areas of World Biosphere Reserves; and areas in the UN List of National Parks and Protected Areas.</li> </ul> </li> </ul> </li> <li>• Insufficient data and/or inventory to assess biodiversity risks on project site: the proposed Project Area has not been sufficiently inventoried to ascertain whether there are Critical Natural Habitats, Natural Habitats or Other Important Conservation Values on the Site. Project will be required to complete this assessment, prior to proceeding with funding from the IDB.</li> <li>• Native: a species living within its natural habitat</li> </ul>

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ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
1.2 Biodiversity and ecosystem services (continued)  <a href="#">Back to table of contents</a>	Environmental Project Site (continued) –	<p>This category seeks to address the <b>risks posed by using an invasive species as feedstock</b> for biofuel production. The following definitions should be used to make the appropriate selection within this category for the specific project area*.</p> <p><i>*Project area: the site of biofuel feedstock production and the surrounding areas of similar ecology and habitat.</i></p> <p>[Also relevant to aspect(s)/issue(s): <a href="#">1.4 Crop management and agrochemical use.</a>]</p>	<p>(past or present) including the area that it can reach and occupy using its natural dispersal systems</p> <ul style="list-style-type: none"> <li>• Non-native: a species occurring outside of its natural habitat (past or present) and dispersal potential (also referred to as alien, non-indigenous, foreign, or exotic)</li> <li>• Invasive: a species whose spread is not controlled in a particular habitat and causes or is likely to cause economic or environmental harm, or harm to human health. For additional information, refer to section B.9 of IDB’s Policy Environment and Safeguards Compliance Policy. Please refer to the Global Invasive Species Database for a listing of known invasive species.</li> <li>• Domesticated: non-invasive species that have been intentionally bred and/or cultivated to support human livelihoods or a preferred quality of life. Propagation mechanisms of domesticated species have been researched and analyzed and demonstrates that species’ spread is contained.</li> <li>• Controlled: through management practices, infrastructure adjustments, and/or site selection, the propagation of the species, although invasive, has been contained within the project area.</li> <li>• N/A: feedstock is a waste residue</li> </ul>
	Environmental Feedstock/Crop Management –	See category <a href="#">Harvesting method</a> on <b>biodiversity loss for different methods of harvest</b> at aspect/issue 1.7 Air quality.	
		See category <a href="#">Fertilizer management</a> on <b>impacts of</b>	

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ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
		<p><b>fertilizer on area biodiversity</b> at aspect/issue 1.4 Crop management and agrochemical use.</p> <p>See category <a href="#">Pesticide use</a> on <b>impacts of pesticide on area biodiversity</b> at aspect/issue 1.4 Crop management and agrochemical use.</p>	
<p>1.3 Productive capacity of land</p> <p><a href="#">Back to table of contents</a></p>	<p>Environmental Feedstock/Crop Management –</p>	<p><b><u>Crop lifecycle</u></b>            This category seeks to address issues relating to <b>soil erosion, carbon released from the soil, water run-off, and energy input for harvesting.</b></p> <p>[Also relevant to aspect(s)/issue(s): <a href="#">1.5</a> Water availability; and <a href="#">1.6</a> GHG emissions.]</p>	<ul style="list-style-type: none"> <li>• Permanent crop: crops that continue to grow each year without replanting and without significant reductions in yield up to 25 years. Many trees and fruit yielding bushes would fall into this category. Jatropha and palm are examples.</li> <li>• Multi-year/perennial crop: crops that continue to grow for a series of years without replanting and without significant reductions in yield for multiple years. Sugarcane is an example.</li> <li>• Annual crop: crops that must be replanted each year. Corn is an example.</li> <li>• No till: crops planted without prior seedbed preparation, into an existing cover crop, sod, or crop residues, and eliminating subsequent tillage operations. Minimal land disturbance.</li> <li>• Low till: minimized extraction of crop residue and reduced intensity of plowing or soil disruption</li> <li>• Tilling: preparation of land for the planting of crops, such as by plowing.</li> </ul>
		<p><b><u>Crop rotation/crop mix</u></b>            This category seeks to address issues relating to <b>soil quality, soil input requirements, and crop biodiversity.</b>            Percentages should be measured on a per hectare, per year basis. For example, if a project is</p>	<ul style="list-style-type: none"> <li>• Crop rotation and inter-cropping: use of both crop rotation and inter-cropping</li> <li>• Crop rotation: alternating the types of crops grown each season</li> <li>• Inter-cropping: growing of two or more crops in</li> </ul>

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ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
1.3 Productive capacity of land (continued)	Environmental Feedstock/Crop Management (continued)	– intercropping jatropha with tomatoes on 50% of the total project site in order to assess changes in yield, soil quality, economics, and social factors, then inter-cropping would be 50% and no crop rotation or intercropping would be 50%.	proximity to each other • No crop rotation or inter-cropping: standard monoculture with no use of other crops, even in off-years • N/A: feedstock is from a waste stream, perennial grass, algae, or other advanced feedstock not requiring traditional planting.
		See category <a href="#">Fertilizer management</a> on <b>soil quality</b> at aspect/issue 1.4 Crop management and agrochemical use.	
		See category <a href="#">Pesticide use</a> on <b>soil quality</b> at aspect/issue 1.4 Crop management and agrochemical use.	
1.4 Crop management and agrochemical use  <a href="#">Back to table of contents</a>	Environmental Project Site	– See <a href="#">Invasive Species</a> on <b>risks of invasive species as feedstock</b> at aspect/issue 1.2 Biodiversity and ecosystem services.	
	Environmental Feedstock/Crop Management	– <b>Fertilizer management</b> This category seeks to address issues of soil quality, area biodiversity, nitrogen emissions, run-off and leaching. Refer to the IDB Fertilizer Management Calculator to facilitate completion of this category. Check the boxes of the best practices that are being employed for the project and enter on what percentage of hectares these practices are being applied.  [Also relevant to aspect(s)/issue(s): <a href="#">1.2</a> Biodiversity and ecosystem services; <a href="#">1.3</a> Productive capacity of land; <a href="#">1.5</a> Water availability and quality; and <a href="#">1.7</a> Air quality.]	• No fertilizer used • Controlled release fertilizers: a synthetic fertilizer usually encased in gelatin capsules, that releases its nutrients over a specific period of time, much the same as a controlled-release drug releases its medicine. Also called timed-release fertilizer. Controlled release fertilizers allow the crop to absorb more of the nitrogen, thereby reducing emissions from leaching and run-off • Nitrification inhibitors: nitrification inhibitors restrict the microbial conversion of ammonium (NH <sub>4</sub> ) to nitrate (NO <sub>3</sub> ) and hence to the gases, nitrogen (N <sub>2</sub> ) and nitrous oxide (N <sub>2</sub> O) (a greenhouse gas) • Liming: a soil additive made from pulverized

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ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
1.4 Crop management and agrochemical use (continued)  <a href="#">Back to table of contents</a>	Environmental Feedstock/Crop Management (continued) –	<p><b><u>Fertilizer management</u></b></p> <p>This category seeks to address issues of soil quality, area biodiversity, nitrogen emissions, run-off and leaching. Refer to the IDB Fertilizer Management Calculator to facilitate completion of this category. Check the boxes of the best practices that are being employed for the project and enter on what percentage of hectares these practices are being applied. (continued)</p>	<p>limestone or chalk. The primary active component is calcium carbonate. Liming can help raise pH levels and improve water penetration, both of which reduce nitrogen leaching</p> <ul style="list-style-type: none"> <li>• Spot application/targeted application: treat problems at the field location where they occur, rather than blanket treatment of the field, as with conventional systems</li> <li>• Use of cover crops: a crop, such as winter rye or clover, planted between periods of regular crop production to prevent soil erosion and provide humus or nitrogen</li> <li>• Avoidance of excessive wetness and compaction: higher moisture content in the soil and compaction can increase nitrogen emissions by inhibiting uptake by the plant and leading to runoff and leaching</li> </ul>
		<p><b><u>Pesticide use</u></b></p> <p>This category seeks to address issues of soil quality, run-off, and area biodiversity. Percentages should be measured on a per hectare basis. For example, if using organic pesticides for spot treatment of 50% of the crop, but spraying with a non-organic pesticides on another 50%.</p> <p>[Also relevant to aspect(s)/issue(s):  <a href="#">1.2</a> Biodiversity and ecosystem services;  <a href="#">1.3</a> Productive capacity of land; and  <a href="#">1.5</a> Water availability and quality.]</p>	<ul style="list-style-type: none"> <li>• No pesticides used</li> <li>• Efficient use of organic pesticides: pesticides made of organic materials, used for spot application.</li> <li>• Organic pesticides: pesticides made of organic materials</li> <li>• Efficient use of non-organic pesticides: non-organic pesticides for spot application.</li> <li>• Non-organic pesticides: pesticides not made from organic material.</li> </ul> <p>Internationally restricted pesticides: pesticides restricted by the UN and FAO</p>

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ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
<p>1.5 Water availability and quality</p> <p><a href="#">Back to table of contents</a></p>	<p>Environmental Feedstock/Crop Management –</p>	<p><b><u>Water management</u></b></p> <p>This category seeks to address issues relating to water scarcity and water run-off, in addition to energy input. Percentages should be measured on a per hectare per month basis. Refer to the IDB Water Management Calculator to facilitate measurement and adequate use of percentages. An additional component to water management is measurement. All projects should be measuring the quantity of water required for cultivation and production (addressed under the water use in industrial process category).</p>	<ul style="list-style-type: none"> <li>• No water required for cultivation: no rainfall or artificial irrigation required. This applies in the cultivation of advanced feedstocks such as biofuels produced from waste and co-products residues</li> <li>• Rain-fed: required water necessary for productivity provided through rainfall, no additional irrigation required</li> <li>• Efficient irrigation: use of irrigation method that minimizes the use of water and fertilizer. This type of irrigation can take many forms, but the most common is drip irrigation (also known as trickle irrigation or microirrigation)</li> <li>• Standard irrigation: artificial application of water to the soil. Examples are surface irrigation (where water moves over and across land by gravity flow, often called flood irrigation) and sprinkler irrigation (where water is piped to one or more central locations within the field and distributed by overhead high pressure sprinklers)</li> <li>• Irrigation in water scarce region: use of any kind of irrigation in areas where water is already scarce. Scarcity is a situation where there is insufficient water to satisfy normal requirements, defined by degrees of scarcity: absolute, life-threatening, seasonal, temporary, cyclical, etc. Also defined as a state where annual water supplies drop below 1,000 m<sup>3</sup> per person, or when more than 40 per cent of available water is used</li> <li>• Water stress caused by project: water stress for other production or residents caused as a result of the</li> </ul>

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ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
1.5 Water availability and quality (continued)  <a href="#">Back to table of contents</a>	Environmental Feedstock/Crop Management (continued) –	<b><u>Water management</u></b> This category seeks to address issues relating to water scarcity and water run-off, in addition to energy input. Percentages should be measured on a per hectare per month basis. Refer to the IDB Water Management Calculator to facilitate measurement and adequate use of percentages. An additional component to water management is measurement. All projects should be measuring the quantity of water required for cultivation and production (addressed under the water use in industrial process category). (continued)	project's water requirements (irrigation, process, effluent treatment/ contamination). Stress is a situation where there is the potential for shortages of water to satisfy normal requirements <ul style="list-style-type: none"> <li>Water scarcity caused by project: water scarcity for other production or residents caused as a result of the project's water requirements (irrigation, process, effluent treatment/contamination). Scarcity is a situation where there is insufficient water to satisfy normal requirements, defined by degrees of scarcity: absolute, life-threatening, seasonal, temporary, cyclical, etc. Also defined as a state where annual water supplies drop below 1,000 m<sup>3</sup> per person, or when more than 40 per cent of available water is used. See map for water scarce regions</li> </ul>
		See category <a href="#">Crop Lifecycle</a> on <b>water run-off</b> at aspect/issue 1.3 Productive capacity of land.	
		See category <a href="#">Fertilizer management</a> on <b>fertiliser leaching to water system</b> at aspect/issue 1.4 Crop management and agrochemical use.	
		See category <a href="#">Pesticide use</a> on <b>water quality</b> at aspect/issue 1.4 Crop management and agrochemical use.	
	Environmental Cross-cutting –	<b><u>Water requirements for industrial production</u></b> This category seeks to address the project's level of efficiency in terms of <b>water usage in the production cycle</b> .	<ul style="list-style-type: none"> <li>No water required for production cycle</li> <li>No use of potable water for production: water required for production cycle is provided from greywater source and/or from captured rainwater.</li> <li>Potable water use reduction by 30% or greater: water use for production has been reduced by implementing efficiency measures, and/or the use of</li> </ul>

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ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
1.5 Water availability and quality (continued)	Environmental Cross-cutting (continued)	– <u>Water requirements for industrial production</u> This category seeks to address the project's level of efficiency in terms of <b>water usage in the production cycle.</b> (continued)	<p>captured rainwater or wastewater in the production cycle.</p> <ul style="list-style-type: none"> <li>• Potable water use reduction by 10% - 30%: water use for production has been reduced by implementing efficiency measures, and/or the use of captured rainwater or wastewater in the production cycle.</li> <li>• No measurement of water use or less than 10% reduction in water use</li> </ul>
1.6 GHG emissions <a href="#">Back to table of contents</a>	Environmental Project Site	– <u>Carbon emissions from direct land use change</u> This category seeks to address the <b>impact of direct land use change on greenhouse gas emissions.</b> This category also seeks to address emissions from indirect land use change by favoring the use of degraded lands or Responsible Cultivation Areas, as defined by Ecofys and WWF. Each project is required to conduct an analysis of carbon emissions from land use change with data specific to the project. The following book offers guidance on calculating emissions from land use change, Carbon Inventory Methods by N.H. Ravindranath and Madelene Ostwald. Projects can also refer to IPCC guidelines for calculating direct and indirect emissions from land-use change. This category does not address food security, and rather seeks to capture the trade-offs in choosing different land	<p>Land types are defined below. Land type should be reported based on the land use on November 30, 2005.</p> <ul style="list-style-type: none"> <li>• No land for cultivation</li> <li>• Degraded land: includes land where more than one of the land's resources (soil, water, vegetation, air, climate, etc.) has changed for the worse resulting in the temporary or permanent decline in the productive capacity of the land. Little to no living biomass is present on the land.</li> <li>• Cropland: includes land under cultivation (including fallow land), and agro-forestry systems, where the vegetation is lower than that included in the Forest land definition. Also includes rangelands and pasture lands that are not considered cropland but could have an agricultural use.</li> <li>• Woody savannah: includes systems with woody</li> </ul>

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1.6 GHG emissions (continued)  <a href="#">Back to table of contents</a>	Environmental – Project Site (continued)	<p>types. For example, choosing cropland from a carbon perspective would be yellow, whereas under food security would be orange or red. Land types are defined below. Land type should be reported based on the land use on January 1, 2009, as referenced by the Roundtable on Sustainable Biofuels.</p> <p>[Also relevant to aspect(s)/issue(s):  <a href="#">1.1 Land-use change</a> (direct and/or indirect).]</p>	<p>vegetation and other vegetation that falls below the threshold of the Forest land definition. Tropical grassland characterized by the trees being sufficiently small or widely spaced so that the canopy does not close. The open canopy allows sufficient light to reach the ground to support an unbroken herbaceous layer consisting primarily of grasses.</p> <ul style="list-style-type: none"> <li>• Forest land: a minimum area of land of 0.05-1.0 hectares with tree crown cover (or equivalent stocking level) of more than 10-30%, with trees with the potential to reach a minimum height of 2-5 meters at maturity in situ.</li> </ul>
	Environmental – Production/Facility Management	<p><u>Energy source for facility</u></p> <p>This category seeks to address <b>greenhouse gas emissions, as well as the ratio of energy return on energy input of the production phase</b> of biofuel projects. Percentages should be measured on a kW/h basis. For example, if the project is producing electricity through cogeneration from biomass for half of its electricity needs, and requiring the other half from the grid, cogen from biomass would be 50% and grid would be 50%.</p>	<ul style="list-style-type: none"> <li>• Cogeneration with excess to sell to grid: production of energy from the raw material or waste materials that are used in the biofuels production. This energy is then used to power the facility, and the excess energy can be sold into the grid</li> <li>• Cogeneration to power facility only: production of energy from the raw material or waste materials that are used in the biofuels production. This energy is then used exclusively to power the facility</li> <li>• Other renewables: use of other renewable sources of energy to power the facility, such as wind, solar, and geothermal</li> <li>• Grid: use of energy from the grid to power the facility</li> <li>• Off-grid fossil fuel: use of off-grid fossil fuel to power the facility</li> </ul>

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ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
1.6 GHG emissions (continued)  <a href="#">Back to table of contents</a>	Environmental Distribution	– <u>Relative energy efficiency of transport and distribution</u> This category seeks to address issues pertaining to the <b>relative energy efficiency of the transportation and distribution of the biofuel production</b> . This indicator can be measured by calculating the ratio between the energy used in transporting the biofuel and the energy content of the biofuel transported. Refer to the IDB Distribution Efficiency Calculator to facilitate measurement. Note that the first set of distances covers the transportation of the raw material between the field and the processing plant; the second set of distances covers the distribution between the processing plant and the purchaser.	
	Environmental Cross-cutting	– <u>Energy balance</u> This category seeks to address the <b>ratio between the energy produced by 1 kg of the biofuel and the total energy necessary to cultivate, produce, and distribute it</b> ; that is, the number of energy units obtained for each unit of energy expended. For example, a biofuel with an energy balance of 1 consumes as much energy in the cultivation, production, and distribution as the energy it delivers in the end-use. Energy balance should be calculated with project specific information, not estimated based on global averages. This is calculated by taking energy output divided by the energy input, in order to obtain the net energy ratio (NER). The calculation of this ratio requires a life cycle assessment of the project's energy use and	

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ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
1.6 GHG emissions (continued)  <a href="#">Back to table of contents</a>	Environmental Cross-cutting (continued)	– inputs and is strongly correlated with the life cycle assessment that will be necessary to calculate greenhouse gas emissions savings.  <u>Greenhouse gas emissions savings</u> This category provides a measurement of the <b>direct and indirect greenhouse gas savings resulting from the production</b> of a biofuel project, taking into account the entire lifecycle of biofuel production, from feedstock cultivation to the end-use (from the "field to the tank"). The lifecycle analysis includes the construction of the facility. The savings are calculated against the fuel baseline; that is, how much lower GHG emissions are than if conventional fuel were used. Note that there is currently no internationally agreed upon methodology to calculate lifecycle GHG emissions from biofuels development, however, the IDB is actively participating in global discussions through the Roundtable on Sustainable Biofuels and the Global Bioenergy Partnership and will be providing further guidance on this category.	
	Environmental Feedstock/Crop Management	– See category <a href="#">Crop lifecycle</a> on <b>carbon release from the soil</b> and <b>energy input during harvesting</b> at aspect/issue 1.3 Productive capacity of land.	
		– See category <a href="#">Harvesting method</a> on <b>greenhouse gas emission</b> for different methods of harvest at aspect/issue 1.7 Air quality.	
1.7 Air quality	Environmental Feedstock/Crop Management	– <u>Harvesting method</u> This category seeks to address issues exclusively related to environmental concerns, such as greenhouse gas emissions, <b>air pollution</b> , and	<ul style="list-style-type: none"> <li>• No burning</li> <li>• Field burning: burning of fields followed by manual harvesting of crops, when mechanical harvesting is</li> </ul>

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ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
1.7 Air quality (continued)	Environmental Feedstock/Crop Management (continued)	– biodiversity loss. Issues associated with the role of labor are addressed in social categories. Percentages should be measured on a per hectare basis. For example, if there are 30 hectares of a 100 hectare project that are on a slope and can not be mechanically harvested, 30% would be field burning, and 70% would be no burning.  [Also relevant to aspect(s)/issue(s): <a href="#">1.2</a> Biodiversity and ecosystem services; and <a href="#">1.6</a> GHG emissions.]  See category <a href="#">Fertilizer management</a> on <b>nitrogen emission</b> at aspect/issue 1.4 Crop management and agrochemical use.	not feasible. <ul style="list-style-type: none"> <li>• Field burning when mechanical harvesting feasible: burning of fields followed by manual harvesting of crops, when mechanical harvesting is feasible.</li> <li>• N/A: feedstock is from a waste stream, perennial grass, algae, or other advanced feedstock not requiring traditional harvesting.</li> </ul>
1.8 Waste management <a href="#">Back to table of contents</a>	Environmental Production/Facility Management	– <u>Waste management</u> This category seeks to address issues pertaining to <b>management of waste disposal</b> .           <u>Waste diversion</u> This category seeks to address issues pertaining to	<ul style="list-style-type: none"> <li>• Meets international standards: project complies with the management practices outlined in the International Finance Corporation’s Waste Management guidelines</li> <li>• Exceeds national regulations: project exceeds national regulations on waste disposal, but does not follow IFC guidelines</li> <li>• Meets national regulations: project complies with national regulations on waste disposal</li> <li>• Project directly violates national regulations: project’s waste disposal methods are illegal</li> <li>• Wastewater from project causes water pollution: wastewater from the project will result in polluted ground or surface water systems</li> </ul>

**IDB BIOFUELS SUSTAINABILITY SCORECARD**

ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
1.8 Waste management (continued)	Environmental – Production/Facility Management (continued)	<p><b>waste reduction.</b> Waste used for productive purposes, including power generation, fertilizer, food products, and other co-products reduces the amount of waste.</p> <p><b>Recycling and reuse</b> also reduce the amount of waste. For example, if a project is reusing agricultural residues and effluents as groundcover/organic fertilizer (accounting for 30% of total waste); recycling all plastic shipping containers containing chemical fertilizers (accounting for 10% of total waste), and in addition sending broken industrial parts to metal scrappage/recycling centers (10% of total waste), this would mean that the project was diverting 50% of their total waste from going to a dump/landfill. The percentage can be calculated based on the weight or volume of the waste produced, but must be consistent throughout.</p> <p>Burning of waste does not count as diversion.</p>	
1.9 Environmental sustainability (cross-cutting)  <a href="#">Back to table of contents</a>	Environmental – Cross-cutting	<p><b><u>Environmental and social impact assessment</u></b></p> <p>This category seeks to address whether the project has conducted an environmental and social impact assessment, including a socio-cultural assessment of how indigenous peoples may be affected, and adequately identifies relevant impacts and mitigation strategies. The assessment process and documentation should be commensurate to the scale and potential impacts and risks of the project. For further information on standards and best practices for environmental and social assessment, please see Environmental and Social Assessment</p>	<ul style="list-style-type: none"> <li>• Assessment complete and adequate: full assessment completed in a participatory manner with impacts, mitigation strategies, and action plans identified and agreed with stakeholders and relevant authorities. If indigenous peoples may be affected, a socio-cultural assessment has been carried out and culturally pertinent impact prevention, mitigation or compensation measures have been agreed upon with indigenous communities through their traditional decision-making mechanisms.</li> <li>• Assessment planned or in progress: environmental and social assessment and (if applicable)</li> </ul>

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ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
1.9 Environmental sustainability (cross-cutting) (continued)	Environmental – Cross-cutting (continued)	reference document.  [Also relevant to aspect(s)/issue(s): <a href="#">2.8</a> Social sustainability (cross-cutting).]	sociocultural assessment is in progress or was completed but gaps exist and project is willing to address them.  • No assessment: environmental and social assessment and (if applicable) socio-cultural assessment not contemplated or gaps exist and project is unwilling or unable to address them.
2. SOCIO-ECONOMIC			
2.1 Land tenure/access and displacement  <a href="#">Back to table of contents</a>	Social	<u>Land ownership</u> This category seeks to address the effect of the project over the <b>land</b> ownership pattern as well as the <b>respect for private property and customary rights and local communities' right to proper compensation</b> . Percentages should be measured on a per hectare basis.	<ul style="list-style-type: none"> <li>• Community-based/co-op: project will purchase feedstock from cooperatives or individual farmers at fair market prices, maintaining the existing small land ownership structures and creating opportunities for cooperation among local farmers.</li> <li>• Community involvement as shareholders: project will purchase the land from local landowners for a fair market price, while granting them equity ownership in the project.</li> <li>• Leasing of the land: project will lease the land from local landowners under equitable arrangements including a fair market rate and a reasonable duration.</li> <li>• Concentrated ownership: project will purchase the land from local landowners for a fair market price.</li> <li>• Displacement with proper compensation: project will utilize land that involves the displacement of people living on or using the land (without proper title). However, the project plans to implement an appropriate compensation for the people displaced</li> </ul>

IDB BIOFUELS SUSTAINABILITY SCORECARD			
ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
2.1 Land tenure/access and displacement (continued)	Social (continued)	<u>Land ownership</u> This category seeks to address the effect of the project over the <b>land</b> ownership pattern as well as the <b>respect for private property and customary rights and local communities' right to proper compensation</b> . Percentages should be measured on a per hectare basis. (continued)	under a resettlement program developed in a participatory manner. <ul style="list-style-type: none"> <li>• Disputed land: ownership, use and/or title to the land is contested by one or more parties, including any indigenous peoples with customary property or use rights.</li> <li>• Involuntary displacement: project will utilize land that involves displacement of people living on or using the land (other than willing sellers). No form of acceptable compensation or resettlement in consultation with those affected is planned.</li> <li>• Involuntary displacement from indigenous territory: project will utilize land that involves displacement of indigenous groups from their lands or territory without their free, prior and informed consent.</li> </ul>
		See category <a href="#">Changes in access to resources</a> on <b>effects on the local peoples' access to land</b> at aspect/issue 2.3 Access to water and other natural resources.	
		See category <a href="#">Impacts on indigenous peoples</a> on <b>land security</b> at aspect/issue 2.2 Rural and social development.	
2.2 Rural and social development <a href="#">Back to table of contents</a>	Social	<u>Capacity building</u> This category seeks to measure the effect of the project on <b>local employees or general population learning, knowledge transfer, and technology transfer</b> .  [Also relevant to aspect(s)/issue(s): <a href="#">2.4</a> Employment, wages and labor conditions.]	<ul style="list-style-type: none"> <li>• Full training plus capacity building programs: project:               <ol style="list-style-type: none"> <li>(i) adequately trains all workers and contractors,</li> <li>(ii) has programs in place that enhance the skills of workers beyond the basic skills needed to carry out their job, and</li> <li>(iii) has programs in place to reduce worker's vulnerability, such as access to credit, affordable</li> </ol> </li> </ul>

IDB BIOFUELS SUSTAINABILITY SCORECARD			
ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
2.2 Rural and social development (continued)  <a href="#">Back to table of contents</a>	Social (continued)	<u>Capacity building</u> This category seeks to measure the effect of the project on <b>local employees or general population learning, knowledge transfer, and technology transfer.</b> (continued)	seed and fertilizer, access to market information. <ul style="list-style-type: none"> <li>• All staff trained: project adequately trains all staff, workers small-holder suppliers, and contractors.</li> <li>• Training of low skilled workers only: project provides job training and basic education to the low skilled workers.</li> <li>• Limited or no training: project provides limited or no job training</li> </ul>
		<u>Local income generation</u> This category seeks to address the project's potential, given its location, hiring and sourcing practices, to <b>generate income for people that live in poor areas or belong to the poor strata</b> of a country. Based on levels of unemployment, per capita gross domestic product (GDP), human development index (HDI), local hiring of low skilled workers and local sourcing practices this category seeks to gage project's impact on income generation. Refer to the IDB Income Generation Calculator to facilitate completion of this category.	
		<u>Local grower arrangements</u> This category seeks to address whether the project has acceptable arrangements for <b>sourcing feedstock from local growers</b> , including independent producers and "outgrowers" under exclusive sales agreements. Refer to the IDB Grower Arrangements Calculator to facilitate completion of this category.	
		See category <a href="#">Community development</a> on the <b>project benefiting the local community</b> at	

IDB BIOFUELS SUSTAINABILITY SCORECARD			
ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
2.2 Rural and social development (continued)	Social (continued)	aspect/issue 3.2 Participation and transparency. <u>Impacts on indigenous peoples</u> This category seeks to address whether the project has any potential <b>impacts on indigenous peoples</b> . Impacts particular to indigenous peoples that must be considered include: land, physical and food security, disruption of cultural or spiritual practices; forced contact or integration; disruption of cultural reproduction; monetarization and disruption of traditional economic and power structures; impacts on health through changes in diet, exposure to new disease agents or sexually transmitted diseases; exploitation through unremunerated labor, prostitution; or use of traditional knowledge or intellectual property without appropriate compensation, consent and benefit sharing; among others. For additional information please refer to IDB's Operational Policy on Indigenous Peoples and Strategy for Indigenous Development.  [Also relevant to aspect(s)/issue(s): <a href="#">2.1</a> Land tenure/access and displacement; <a href="#">2.4</a> Employment, wages and displacement; <a href="#">2.5</a> Human health and safety; <a href="#">4.2</a> Food access; and <a href="#">4.3</a> Food utilization.]	<ul style="list-style-type: none"> <li>• Confirmed positive impacts on indigenous peoples: project will have positive impacts on indigenous community through mechanisms endorsed by the community's traditional decision making process.</li> <li>• Negative impacts/simple mitigation: project will have moderate or limited negative impacts and the community has approved or is likely to approve mitigation and/or compensation measures, via a process of good faith negotiations that is consistent with the community's traditional decision-making process.</li> <li>• Negative impacts/complex mitigation: will have negative impacts on indigenous communities, which require complex mitigation measures that may not resolve issues completely.</li> <li>• Unmitigated Negative Impacts: project will have impacts that cannot be mitigated because:               <ol style="list-style-type: none"> <li>(i) there are no viable mitigatory or compensatory measures;</li> <li>(ii) broad community support is unobtainable; or</li> <li>(iii) isolated or uncontacted indigenous peoples are within the project immediate vicinity and forced or accidental contact is a possibility.</li> </ol> </li> <li>• N/A: project will not have any impact on indigenous communities.</li> </ul>
		2.3 Access to water and other natural resources  <a href="#">Back to table of contents</a>	Social

IDB BIOFUELS SUSTAINABILITY SCORECARD			
ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
2.3 Access to water and other natural resources (continued)	Social (continued)	<p><b>fishing stock, land, etc.)</b> that are vital for local food security and/or their subsistence strategies, such as habitat and mobility, cultural practices, and reproduction and customary practices. Level of impacts determined by considering: intensity and reversibility of impacts, availability of alternative sources of resources including income; percentage of affected group impacted, geographic reach, and duration (short vs. long term) of impacts.</p> <p>[Also relevant to aspect(s)/issue(s):  <a href="#">2.1</a> Land tenure/access and displacement; and  <a href="#">4.2</a> Food access.]</p>	<ul style="list-style-type: none"> <li>• Limited changes in access to resources: project will present limited changes or restrictions in access to subsistence resources and/or local food security, but access to equivalent resources and usage rights have been agreed upon with affected communities.</li> <li>• Moderate changes in access to resources: project will cause moderate changes or restrictions in access to subsistence and/or local food security resources but adequate mitigation and compensation measures have been agreed upon or are under discussion with affected communities.</li> <li>• Significant changes with mitigation measures: project will cause significant changes or restrictions in access to subsistence resources and/or local food security and complex mitigation measures will be required and are agreed or under negotiation with affected communities.</li> <li>• Significant changes without mitigation measures: project will cause significant changes or restrictions in local food security and/or in access to subsistence resources and no mitigation or compensation measures are feasible, or the project sponsor or affected communities are unable or unwilling to negotiate adequate mitigation or compensation measures.</li> </ul>
2.4 Employment, wages and labor conditions  <a href="#">Back to table of contents</a>	Social	<p>See category <a href="#">Capacity building</a> on providing <b>learning, knowledge and technology transfer to local employees</b> at aspect/issue 2.2 Rural and social development.</p> <p><u>Labor rights</u></p>	<ul style="list-style-type: none"> <li>• Meets or exceeds international standards: workers'</li> </ul>

IDB BIOFUELS SUSTAINABILITY SCORECARD			
ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
2.4 Employment, wages and labor conditions (continued)  <a href="#">Back to table of contents</a>	Social (continued)	<p>This category seeks to capture the project's <b>labor standards, respect for basic human rights at the workplace, and compliance with legal and regulatory structures</b> necessary to enforce those rights.</p> <p>Percentages should be measured on a per worker per month basis. For example, if a project hires migrant workers for 20% of the year and they only make up 30% of the labor force, and the rest of the employees meet national standards, the project should calculate 6% under informal employment, with 94% under meets national standards.</p> <p>[Also relevant to aspect(s)/issue(s): <a href="#">3.1 Compliance.</a>]</p>	<p>conditions comply with the country's labor regulations, and also meet additional conditions:</p> <ul style="list-style-type: none"> <li>(i) workers' conditions meet or exceed the International Labor Organization standards; and</li> <li>(ii) workers' compensation exceeds the national average for equivalent workers in the industry</li> </ul> <ul style="list-style-type: none"> <li>• Exceeds national standards: workers' conditions comply with the country's labor regulations, granting them all available legal rights and governmental protection, and include at least:               <ul style="list-style-type: none"> <li>(i) a living wage;</li> <li>(ii) collective bargaining or similar rights;</li> <li>(iii) sound health and safety management;</li> <li>(iv) a transparent, fair and accessible mechanism to address labor-related grievances; and</li> <li>(v) preference for local labor, with migrant workers hired only under conditions that are equivalent to those for labor of same skill level and provided with housing that meets health and sanitary standards and protects local communities from disruption</li> </ul> </li> <li>• Meets national standards: workers' conditions comply with the country's labor regulations, granting them all available legal rights and governmental protection and pays wages according to local market rates.</li> <li>• Informal employment: workers hired informally, without standard benefits</li> <li>• Violation of labor rights: non-compliance with local labor laws and regulations; workers subjected to</li> </ul>

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ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
2.4 Employment, wages and labor conditions (continued)	Social (continued)		forced labor, unpaid labor, indentured labor (adhesion contracts, and exploitative in-kind payment arrangements), wage slavery (under average wages); employment of child labor; employees subject to discrimination or harassment
		See category <a href="#">Human rights</a> on <b>basic human rights at the workplace</b> at aspect/issue 3.1 Compliance.	
		See category <a href="#">Impacts on indigenous peoples</a> on <b>forced contract</b> and <b>unremunerated labor</b> at aspect/issue 2.2 Rural and social development.	
2.5 Human health and safety	Social	See category <a href="#">Human rights</a> on <b>sexually transmitted diseases, humane housing and health condition</b> at aspect/issue 3.1 Compliance.	
		See category <a href="#">Impacts on indigenous peoples</a> on <b>disruption of food security and health issues</b> at aspect/issue 2.2 Rural and social development.	
2.7 Good management practices and continuous improvement <a href="#">Back to table of contents</a>	Environmental Cross-cutting	– <b><u>Yield – Biofuel and co-products</u></b> This category seeks to measure the <b>overall efficiency of the project</b> , considering the feedstock used and the total volume of biofuel produced, measured by liters of biofuel per hectare of land used in cultivation. Refer to the IDB Yield Calculator to facilitate completion of this category. Yield must be calculated for the project, not estimated based on typical feedstock yields. The calculator will provide three different measurements of yield – liters of liquid biofuel per hectare, MJ of energy per hectare of biofuel, and MJ of energy per hectare for co-products. First, choose biodiesel or ethanol, then enter the yield in	

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ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
2.7 Good management practices and continuous improvement (continued)  <a href="#">Back to table of contents</a>	Environmental – Cross-cutting (continued)	tons per hectare and in liters per hectare for the project. The calculator will then show the resulting yield in energy content (MJ) of biofuel (either ethanol or biodiesel) per hectare. This is to illustrate how efficiently the project is using the land, the higher the MJ per hectare of biofuel, the more efficient use of land. Next, choose the co-products that the project will be producing/ utilizing. The calculator will then give an estimated co-product yield in energy content (MJ) per hectare. This is to further illustrate how efficiently the project is utilizing the land by utilizing co-products. The final result of the calculator will be the sum of both the biofuel and co-product yield in MJ/hectare, to show an estimated total energy production per hectare (MJ/hectare).	
		<p><b><u>Energy balance</u></b></p> <p>This category seeks to address the <b>ratio between the energy produced by 1 kg of the biofuel and the total energy necessary to cultivate, produce, and distribute</b> it; that is, the number of energy units obtained for each unit of energy expended. For example, a biofuel with an energy balance of 1 consumes as much energy in the cultivation, production, and distribution as the energy it delivers in the end-use. Energy balance should be calculated with project specific information, not estimated based on global averages. This is calculated by taking energy output divided by the energy input, in order to obtain the net energy ratio (NER). The calculation of this ratio requires a life</p>	

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ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
		cycle assessment of the project's energy use and inputs and is strongly correlated with the life cycle assessment that will be necessary to calculate greenhouse gas emissions savings.	
2.8 Social sustainability (cross-cutting)	Environmental Project Site	– See category <a href="#">Biodiversity</a> on <b>impacts of project on cultural sites</b> at aspect/issue 1.2 Biodiversity and ecosystem services.	
	Environmental Cross-cutting	– See category <a href="#">Environmental and social impact assessment</a> on <b>social assessment and mitigation strategies</b> at aspect/issue 1.9 Environmental sustainability (cross-cutting).	
3. GOVERNANCE			
3.1 Compliance <a href="#">Back to table of contents</a>	Social	<p><b><u>Human rights</u></b></p> <p>This category seeks to capture the <b>project's standards and respect for basic human rights at the workplace</b> (beyond the labor relationship itself), within the community as a whole, and compliance with legal and regulatory structures necessary to enforce those rights and ensure non-discriminatory practices.</p> <p>[Also relevant to aspect(s)/issue(s):  <a href="#">2.4</a> Employment, wages and displacement;  <a href="#">2.5</a> Human health and safety;  <a href="#">3.2</a> Participation and transparency;  <a href="#">4.2</a> Food access; and  <a href="#">4.3</a> Food utilization.]</p>	<ul style="list-style-type: none"> <li>• Complies with best practices: project, systematically and proactively implements and reports upon human rights practices that are regularly communicated to management and employees and include: compliance with the country's regulations and basic human rights requirements, and adherence to voluntary principles such as Guide for Integrating Human Rights into Business Management (UN-BLIHR) and the Guide for Human Rights Impact Assessment and Management (IFC).</li> <li>• Complies with basic principles: project complies with the country's regulations and implements practices that adhere to a general commitment to human rights regarding workers' conditions and community treatment including:             <ol style="list-style-type: none"> <li>(i) no discrimination (or tolerance for harassment) based on race, caste, national origin, religion, ethnicity, disability, gender, sexual orientation, or</li> </ol> </li> </ul>

IDB BIOFUELS SUSTAINABILITY SCORECARD			
ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
3.1 Compliance (continued)  <a href="#">Back to table of contents</a>	Social (continued)	<p><b><u>Human rights</u></b>            This category seeks to capture the <b>project's standards and respect for basic human rights at the workplace</b> (beyond the labor relationship itself), within the community as a whole, and compliance with legal and regulatory structures necessary to enforce those rights and ensure non-discriminatory practices.            (continued)</p>	<p>political affiliation;</p> <p>(ii) recognition of local peoples' rights and securing of their consent to developments that affect those rights;</p> <p>(iii) fair and transparent grievance procedures for community claims and complaints;</p> <p>(iv) Code of Conduct for workers with respect to community vulnerabilities, rights and socio-cultural sensitivities, including sexually infectious diseases and any fraternization with women and minors; and</p> <p>(v) humane housing, food and health conditions for all resident workers.</p> <ul style="list-style-type: none"> <li>• Meets national standards: project complies with the country's regulations and with basic human rights requirements</li> <li>• Potential violation of human rights: Project does not comply with basic principles and/or project is subject to allegations of human rights violations.</li> <li>• Violation of human rights: project has recent history of human rights violations, such as:               <ul style="list-style-type: none"> <li>(i) discriminatory practices or tolerance for harassment;</li> <li>(ii) disregard for community claims or complaints;</li> <li>(iii) disregard for worker misconduct affecting the community;</li> <li>(iv) use or violence or inappropriate use of the police or military to impose project's "rights" while disregarding community rights and safety;</li> <li>(v) inhumane treatment of workers.</li> </ul> </li> </ul>

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ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
		See category <a href="#">Labour Rights</a> on legal and regulatory structures for labor standards and human rights at the workplace at aspect/issue 2.4 Employment, wages and labor conditions.	
3.2 Participation and transparency  <a href="#">Back to table of contents</a>	Social	<p><u>Consultation and transparency</u></p> <p>This category seeks to address whether stakeholders have had <b>access to information and documentation on environmental, social and legal issues</b>, the local community has been <b>consulted and adequately represented</b>, and adequate strategies for <b>continuous stakeholder engagement</b> exist. The scale of consultation should be proportionate to the scale and scope of the project and any potential conflicts.</p>	<ul style="list-style-type: none"> <li>• Full transparent consultation: project:               <ol style="list-style-type: none"> <li>(i) has conducted and documented a participatory and iterative consultation process with the local community and other stakeholders;</li> <li>(ii) has received the affected community's free, prior and informed consent to the project and related plans; and</li> <li>(iii) has developed and will maintain a continuous stakeholder engagement plan for the life of the project</li> </ol> </li> <li>• Good faith negotiations and broad community support: project has sought and is likely to receive the free, prior and informed consent of the local community or the documented broad support of the community by               <ol style="list-style-type: none"> <li>(i) providing information about and consultation on any proposed initiative and its likely impacts;</li> <li>(ii) seeking meaningful participation of indigenous peoples and local community;</li> <li>(iii) involving representative institutions; and</li> <li>(iv) reaching agreements and protecting the rights of community members who choose not to participate. Long-term stakeholder engagement plan contemplated but gaps present</li> </ol> </li> <li>• Good faith negotiations and broad community support: project has sought and is likely to receive</li> </ul>

IDB BIOFUELS SUSTAINABILITY SCORECARD			
ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
3.2 Participation and transparency (continued)  <a href="#">Back to table of contents</a>	Social (continued)	<u>Consultation and transparency</u> This category seeks to address whether stakeholders have had <b>access to information and documentation on environmental, social and legal issues</b> , the local community has been <b>consulted and adequately represented</b> , and adequate strategies for <b>continuous stakeholder engagement</b> exist. The scale of consultation should be proportionate to the scale and scope of the project and any potential conflicts. (continued)	the free, prior and informed consent of the local community or the documented broad support of the community by (i) providing information about and consultation on any proposed initiative and its likely impacts; (ii) seeking meaningful participation of indigenous peoples and local community; (iii) involving representative institutions; and (iv) reaching agreements and protecting the rights of community members who choose not to participate. Long-term stakeholder engagement plan contemplated but gaps present. <ul style="list-style-type: none"> <li>• Partial consultation: project has conducted some consultations but has not achieved full disclosure or a negotiated agreement with the affected community</li> <li>• No consultation: project has not consulted with the local community and/or has not openly shared information about the project and its impacts. Project does not plan on developing and implementing a long-term engagement strategy</li> </ul>
		See category <a href="#">Human rights</a> on <b>local consent to developments, fair and transparent grievance procedures</b> at aspect/issue 3.1 Compliance.	
		<u>Community development</u> This category seeks to address the extent to which the project will maximize <b>benefits for the local community</b> .  [Also relevant to aspect(s)/issue(s): <a href="#">2.2</a> Rural and social development.]	<ul style="list-style-type: none"> <li>• Community development program <b>with full consultation:</b> project has established or will establish and implement, through a process of mutual agreement, a community development program with clear objectives, targets, calendar, budget and indicators in agreed priorities areas that include health, education, community infrastructure and</li> </ul>

IDB BIOFUELS SUSTAINABILITY SCORECARD			
ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
3.2 Participation and transparency (continued)	Social (continued)	<u>Community development</u> This category seeks to address the extent to which the project will maximize <b>benefits for the local community</b> . (continued)	<p>productive projects. The program also includes local capacity building and initiatives to leverage resources from other sources.</p> <ul style="list-style-type: none"> <li>• Community development program with limited consultation: project has established or will establish and implement a community developed program with clear targets and budget developed with limited consultation.</li> <li>• Community development activities: project will undertake community development activities according to internal policies but will not develop a program for this purpose.</li> <li>• No community development: project will not have either a policy or program for community development.</li> </ul>
<b>4. FOOD SECURITY</b>			
4.1 Food availability <a href="#">Back to table of contents</a>	Social	<u>Impact on food security</u> This category seeks to address the issue of local, national, and global food security resulting from a <b>change in land use with respect to food production</b> . Given the complexity of this issue, the IDB has partnered with the UN's Food and Agriculture Organization's Bioenergy and Food Security Program, which includes an assessment of availability, access, utilization, and stability of food supply. The FAO's model also includes population growth and local income in assessing food security risk. Project sponsors should refer to this model when assessing project impact on food security.  [Also relevant to aspect(s)/issue(s):	<ul style="list-style-type: none"> <li>• Positive impact on food security: the project has conducted an analysis of the various factors affecting food security and has determined that the project will provide a positive impact.</li> <li>• No impact on food security: the project has conducted an analysis of the various factors affecting food security and has determined that the project has no impact.</li> <li>• Negative impact on food security: the project has conducted an analysis of the various factors affecting food security and has determined that the project will provide a negative impact.</li> </ul>

IDB BIOFUELS SUSTAINABILITY SCORECARD			
ASPECTS/ISSUES	CRITERIA	CATEGORIES	OPTIONS
		<a href="#">1.1</a> Land-use change (direct and/or indirect)]	
4.2 Food access	Social	See category <a href="#">Human rights</a> on <b>provision of food</b> for all resident workers at aspect/issue 3.1 Compliance.	
		See category <a href="#">Changes in access to resources</a> on <b>local peoples' access to resources for food security and subsistence strategies</b> at aspect/issue 2.3 Access to water and other natural resources.	
		See category <a href="#">Impacts on indigenous peoples</a> on <b>access to food by indigenous people</b> at aspect/issue 2.2 Rural and social development.	
4.3 Food utilization <a href="#">Back to table of contents</a>	Social	See category <a href="#">Human rights</a> on <b>provision of humane housing and commitment to health issues</b> for all at aspect/issue 3.1 Compliance.	
		See category <a href="#">Impacts on indigenous peoples</a> on <b>impact on health of indigenous people through changes in diet</b> at aspect/issue 2.2 Rural and social development.	