

Roundtable on Sustainable Biofuels

Where specifically stated in a criterion the impact assessment process shall extend 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).

Principle 7: Conservation

Principle 7. Biofuel operations shall avoid negative impacts on biodiversity, ecosystems, and conservation values.

Criterion 7.a Conservation values of local, regional or global importance within the potential or existing area of operation shall be maintained or enhanced.

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

Minimum requirements

- *Participating Operators shall identify the conservation value(s) within the area of a potential or existing operation during the screening exercise of the RSB impact assessment process (Principle 2).*
- *Conversion or use of new areas for biofuel operations shall not occur prior to the screening exercise.*
- *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).*
- *Biofuel operations shall prioritize areas with the lowest possible risk of impacts to the identified conservation values.*
- *Areas identified as “no-go areas” shall not be used for biofuel operations after the 1st of January 2009, unless feedstock production or processing operations are legally authorised as part of the conservation management for the area concerned.*
- *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.*
- *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 conservation values (e.g. sustainable biomass harvesting).*
- *Hunting, fishing, ensnaring, poisoning and exploitation of rare, threatened, endangered and legally protected species shall not occur on the operation site.*

Criterion 7.b Ecosystem functions and services that are directly affected by biofuel operations shall be maintained or enhanced.

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

Minimum requirements

- *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*

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operational site, which are directly affected by biofuel operations.

Criterion 7.c Biofuel operations shall protect, restore or create buffer zones.

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

Minimum requirements

- ☐ 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.
- ☐ 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.

Criterion 7.d Ecological corridors shall be protected, restored or created to minimize fragmentation of habitats.

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

7.d.1 Minimum requirements

- ☐ Existing ecological corridors within the operational site shall be set-aside and protected with appropriate surrounding buffer zones.
- ☐ Whenever the operational site impairs the connectivity between surrounding ecosystems, ecological corridors shall be created by the operator.

7.d.2 Progress requirements (others than small-scale operators only)

- ☐ New ecological corridors shall be created within the operation site if it is surrounded by areas containing wildlife and there is evidence that such corridors would improve connectivity.
- ☐ 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.

Criterion 7.e Biofuel operations shall prevent invasive species from invading areas outside the operation site.

Operators who must comply: Feedstock Producer and Feedstock Processor.

Minimum requirements

- ☐ Participating Operators shall not use any species officially prohibited in the country of operation.
 - ☐ 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)¹.
 - ☐ 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.
 - ☐ 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:
 - 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.
 - 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.
 - 3) During harvesting, processing, transport and trade, Participating Operators shall contain propagules in an appropriate manner on site and during transport.
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Council on Sustainable Biomass Production

3.3 BIOLOGICAL DIVERSITY

The conservation of biological diversity is a critical component of sustainability at the field/stand level as well as at the landscape level. This principle articulates the expectation that growers will deploy management systems in their operations that maintain or enhance biodiversity.

PRINCIPLE: Biomass production shall contribute to the conservation or enhancement of biological diversity, in particular native plants and wildlife.

Criterion 3.1 Biodiversity

Ensure that biomass production systems support native biodiversity both on-site and at an eco-regional level.

IMPLEMENTATION: Program participants shall consider eco-regional, state, and national conservation plans and develop plans and activities to protect biological diversity in consultation with resource agencies, conservation organizations, or expert professionals (who may be employees of the program participant).

SILVER LEVEL INDICATORS

3.1.S1 Assessment of wildlife habitat

To support effective management planning, program participant assesses vegetation cover types and wildlife habitats on enrolled acres and associated incidental areas and, where credible data are available, across the landscape. (Component of Principle 1: Integrated Resources Management Planning, 1.1 Assessment.)

IMPLEMENTATION: Specifications for assessment: The assessment shall be appropriate to the scale of the area proposed for certification and intensity of the operation and conducted prior to the commencement of site-disturbing operations. The assessment must be conducted during the “enrollment period.” The prior condition of vegetation and habitat shall be considered in both the assessment and management planning. The assessment shall include, but not necessarily be limited to, information on known occurrences of rare, threatened, and endangered species and communities* and, important wildlife species and habitats identified in state wildlife action plans. (For assistance program participants should contact their State fish and wildlife agency’s private lands division, State Natural Resources Conservation Service, state US Fish and Wildlife Service, office University Extension Wildlife specialists/staff, Wildlife Conservation Organizations, or private wildlife consultants). Findings of the assessment shall be documented and incorporated into planning and management activities.

*Footnote: Rare, threatened and endangered species and communities shall include species listed as endangered or threatened by the US Endangered Species Act; species and communities considered critically imperiled, imperiled, or vulnerable by NatureServe and Natural Heritage programs; and important wildlife species and habitats identified in regional, state, or national conservation plans (e.g., state wildlife action plans, conservation organization eco-regional conservation plans).

Roundtable on Sustainable Palm Oil

Principle 5: Environmental responsibility and conservation of natural resources and biodiversity

Criterion

Indicators and Guidance

Criterion 5.1 Aspects of plantation and mill management, including replanting, that have environmental impacts are identified, and plans to mitigate the negative impacts and promote the positive ones are made, implemented and monitored, to demonstrate continuous improvement.

Indicators:

- Documented impact assessment.
- Where the identification of impacts requires changes in current practices, in order to mitigate negative effects, a timetable for change should be developed.

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Guidance:

Environmental impact assessment should cover the following activities, where they are undertaken:

- Building new roads, processing mills or other infrastructure.
- Putting in drainage or irrigation systems.
- Replanting or expansion of planting area.
- Disposal of mill effluents (see criterion 4.4);
- Clearing of remaining natural vegetation.

Impact assessment may be a non-restrictive format e.g. ISO 14001 EMS and/or EIA report incorporating elements spelt out in this criterion and raised through stakeholder consultation.

Documented management action plans addressing issues raised from the above impact assessment, which is monitored annually.

Environmental impacts may be identified on soil and water resources, air quality (see criterion 5.6), biodiversity and ecosystems, and people's amenity (see criterion 6.1 for social impacts), both on and off-site.

Stakeholder consultation has a key role in identifying environmental impacts. The inclusion of consultation should result in improved processes to identify impacts and to develop any required mitigation measures.

It is important that where activities, techniques or operations change over time, identifications of impacts, and any required mitigation, are updated as necessary.

For smallholder schemes, the scheme management has the responsibility to undertake impact assessment and to plan and operate in accordance with the results. Individual smallholders would not be expected to undertake formal impact assessments (unless there is a legal requirement) but should have a good understanding of the potential negative impacts of their activities and appropriate mitigation techniques.

National interpretation should consider any national legal requirements together with any other issues that are not required by law but are nevertheless important, e.g.

Independent SEIA for replanting may be desirable under specific situations.

Criterion 5.2 The status of rare, threatened or endangered species and high conservation value habitats, if any, that exist in the plantation or that could be affected by plantation or mill management, shall be identified and their conservation taken into account in management plans and operations.

Indicators:

Information should be collated that includes both the planted area itself and relevant wider landscape-level considerations (such as wildlife corridors). This information should cover:

- Presence of protected areas that could be significantly affected by the grower or miller.
- Conservation status (e.g. IUCN status), legal protection, population status and habitat requirements of rare, threatened, or endangered species, that could be significantly affected by the grower or miller.
- Identification of high conservation value habitats, such as rare and threatened ecosystems, that could be significantly affected by the grower or miller. If rare, threatened or endangered species, or high conservation value habitats, are present, appropriate measures for management planning and operations will include:
 - Ensuring that any legal requirements relating to the protection of the species or habitat are met.
 - Avoiding damage to and deterioration of applicable habitats.
 - Controlling any illegal or inappropriate hunting, fishing or collecting activities; and developing responsible measures to resolve human-wildlife conflicts (e.g., incursions by elephants).

Guidance:

This information gathering should include checking available biological records, and consultation with relevant government departments, research institutes and interested NGOs if appropriate.

Depending on the biodiversity values that are present, and the level of available information, some additional field survey work may be required.

For individual smallholders, a basic understanding of any applicable species or habitats, together with their conservation needs, will be sufficient.

International Sustainability and Carbon Certification

4.1 PRINCIPLE 1: Biomass shall not be produced on land with high biodiversity value or high carbon stock and not from peat land (according to Article 17, 3. of the Directive 2009/28/EC and § 4 to 6 of the German BioSt-NachV and BioKraft-NachV). HCV areas shall be protected.

4.1.1 Biomass is not produced on land with high biodiversity value

This means land that had one of the following statuses in or after January 2008, no matter whether or not the land still has this status:

(1) Forest land

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

Tree species are defined as native, if they grow within their natural geographical range on sites and under climatic conditions to which they have adapted naturally and without human interference.

The following tree species do not count as native:

- Tree species that have been introduced by humans and that would not occur in that area otherwise; and
- tree species and breeds that would not occur on these sites or under these climatic conditions, even if these sites or climatic conditions generally fall within the larger geographical range of the species.

Clearly visible indications of human activity are:

- Land management (i.e. wood harvest, forest clearance, land use change),
- heavy fragmentation through infrastructural constructions such as roads, power lines,
- Disturbances of the natural biodiversity (e.g. significant occurrence of non-native plant or animal species).

Activities of indigenous people or other humans managing the land in a traditional way do not count as clearly visible indications of human activity, if they manage the forest on a subsistence level and their influence on the forested area is minimal (e.g. the collection of wood and non-timber products, the felling of a few trees as well as small-scale forest clearance according to traditional management systems).

(2) Areas designated by law or by the relevant competent authority to serve the purpose of nature protection
Areas for nature protection purposes comprise areas that are designated by law or by the relevant competent authority to serve the purpose of nature protection as well as areas that have been acknowledged by the European Commission as areas for the protection of rare, threatened or vulnerable ecosystems or species.

In Germany, all areas designated to serve the purpose of nature protection are protected parts of nature and landscape on the basis of the nature conservation acts of the states. They include the biotopes protected by federal or state law as well as Natura 2000 areas, nature conservation areas, national parks, national natural monuments, biosphere reserves, landscape protection areas, natural parks, natural monuments and protected landscape elements according to the Federal Act for the Protection of Nature of July 29th 2009 (BGBl. I, S. 2542) entering into force on March 1st 2010.

Comparable legal regulations must be regarded in other countries.

It is allowed to grow biomass on areas that serve the purpose of nature protection as long as the cultivation and the harvest of the biomass do not compromise the defined protection purpose. The protection purpose and the respective imperatives and interdictions must be followed according to the relevant protected area declaration. As long as a Natura 2000 area has not been placed under protection order, the relevant preservation objectives are authoritative.

(3) areas for the protection of rare, threatened or endangered ecosystems or species recognized by international agreements or included in lists drawn up by intergovernmental organizations or the International Union for the Conservation of Nature.

4.1.2 Biomass is not produced on grassland with high biodiversity

Grassland of high biodiversity is defined as grassland which in the absence of human intervention

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would:

(1) remain grassland of intact natural species composition, ecological characteristics and processes (natural grassland); or

(2) not remain grassland and which is rich in species and not degraded (artificial grass- land), unless there is evidence that the harvesting of the biomass is necessary to preserve its grassland status.

Natural grassland develops under certain climatic and other factors (e.g. natural grazing, natural fires) preventing succession to dense forest. Its special characteristic is to remain grassland without any effort of humans.

Natural grassland with high biological diversity is characterized by intact ecological characteristics and processes as well as a natural species composition. A significant occurrence of invasive species, for instance, could indicate that a natural grassland does not feature a natural species composition. A disturbance of ecological characteristics and processes can be caused by a significant change through humans, for instance. As long as this influence does not cause a change in the natural species composition or a significant disturbance of the ecological characteristics and processes, an area is still to be regarded as natural grass- land. In savannahs, for instance, extensive pasturing and anthropogenic fire do not pose a significant disturbance.

Artificially created grassland is mainly agricultural land permanently cultivated for green fodder; it can be permanent grassland such as meadows, mowing pastures and grazing pastures.

Biomass cannot be harvested from areas that have been declared natural grassland of high biodiversity in January 2008 or thereafter. Whereas biomass is allowed to be harvested from artificially created grassland with high biodiversity, in case the preservation of the grassland status requires the harvest of the biomass.

Local conditions of species richness must be regarded when evaluating whether a grassland features high biodiversity. Here, species richness must be assessed along the lines of the bio geographical conditions and site conditions (e.g. a species inventory for that region, if avail- able). In case, of a land-use change from a grassland without high biodiversity, the green- house gas emissions caused by that change must be incorporated into the greenhouse gas emissions calculation.

As long as no geographic areas featuring grassland with high biodiversity are determined, natural grassland is generally not allowed to be used for biomass production. Neither can artificially created grassland with high biodiversity be used.

In case artificially created grassland areas are not permanently managed as grassland, but form part of a crop rotation system (fallow, rotations of pasture and cropping), they are to be treated as farmland on which biomass can be grown and used according to the sustainability ordinances.

Set-aside farmland still counts as agriculturally managed land. The right to use this land after termination of the set-aside period in the same way and to the same extent endures. This holds also for areas that have changed in the course of the set-aside period. Thus, grassland areas that have evolved on former set-aside areas are generally suitable for the production of biomass.

Forest Stewardship Council

ENVIRONMENTAL IMPACT

Forest management shall conserve biological diversity and its associated values, water resources, soils, and unique and fragile ecosystems and landscapes, and, by so doing, maintain the ecological functions and the integrity of the forest.

6.1 Assessment of environmental impacts shall be completed—appropriate to the scale, intensity of forest management and the uniqueness of the affected resources—and adequately integrated into management systems. Assessments shall include landscape level considerations as well as the impacts of on-site processing facilities. Environmental impacts shall be assessed prior to commencement of site-disturbing operations.

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6.2 Safeguards shall exist which protect rare, threatened and endangered species and their habitats (e.g., nesting and feeding areas). Conservation zones and protection areas shall be established, appropriate to the scale and intensity of forest management and the uniqueness of the affected resources. Inappropriate hunting, fishing, trapping and collecting shall be controlled.

6.3 Ecological functions and values shall be maintained intact, enhanced, or restored, including:

- a) Forest regeneration and succession.
- b) Genetic, species, and ecosystem diversity.
- c) Natural cycles that affect the productivity of the forest ecosystem.

6.4 Representative samples of existing ecosystems within the landscape shall be protected in their natural state and recorded on maps, appropriate to the scale and intensity of operations and the uniqueness of the affected resources.

6.5 Written guidelines shall be prepared and implemented to: control erosion; minimize forest damage during harvesting, road construction, and all other mechanical disturbances; and protect water resources.

6.6 Management systems shall promote the development and adoption of environmentally friendly non-chemical methods of pest management and strive to avoid the use of chemical pesticides. World Health Organization Type 1A and 1B and chlorinated hydrocarbon pesticides; pesticides that are persistent, toxic or whose derivatives remain biologically active and accumulate in the food chain beyond their intended use; as well as any pesticides banned by international agreement, shall be prohibited. If chemicals are used, proper equipment and training shall be provided to minimize health and environmental risks.

6.7 Chemicals, containers, liquid and solid non-organic wastes including fuel and oil shall be disposed of in an environmentally appropriate manner at off-site locations.

6.8 Use of biological control agents shall be documented, minimized, monitored and strictly controlled in accordance with national laws and internationally accepted scientific protocols.

Use of genetically modified organisms shall be prohibited.

6.9 The use of exotic species shall be carefully controlled and actively monitored to avoid adverse ecological impacts.

6.10 Forest conversion to plantations or non-forest land uses shall not occur, except in circumstances where conversion:

- a) entails a very limited portion of the forest management unit; and
- b) does not occur on high conservation value forest areas;** and
- c) will enable clear, substantial, additional, secure long term conservation benefits across the forest management unit.