



Initiative Nachhaltige Rohstoffbereitstellung
für die stoffliche Biomassenutzung

Sustainability Criteria for the material use

The Sustainability Criteria were decided at the INRO session 10/4/2013.

Preliminary remarks on the approach and the principles of the generation of the sustainability criteria:

During the production on the field, there is usually no distinction made as to what the raw material is used for later on. Therefore, the agreed criteria within INRO are based to a large extent on the Directive 2009/28/EC of the European Union on the promotion of the use of energy from renewable sources (RED). The RED environmental criteria for the cultivation of biomass were amended wherever it appeared to be necessary and expanded by social and economic criteria. Most of the inherited criteria have already been defined and applied in other contexts (e.g. core labor standards by the International Labour Organisation ILO or the rules of cross-compliance).

Care is explicitly taken to ensure that the criteria are verifiable in practice. Compliance with the criteria is validated and confirmed through certification.

The establishment of certification systems is complex and labour-intensive; additionally, a double and multiple certifications would mean an unnecessary burden for farmers, primary distributors, traders and other market participants. Therefore, we believe it is appropriate not to develop new systems for the material use, but to make the existing systems for biofuels and bioenergy applicable for raw materials for the material use as well. Thus, the costs for all parties involved can be reduced.

For instance, the explanations, therefore, refer to the German certification systems ISCC and REDCert. Apart from these, there are also other systems that are recognized internationally and by the European Commission. However, comparing the European and international certification systems is not part of the project.

The initiative has decided to only develop sustainability criteria for the production of raw material by agriculture up to the primary distributors. This does not replace a comprehensive sustainability analysis for the products.

So far, the criteria have been developed only for raw materials from the field, not yet for raw materials consisting of wood nor for waste products.

Whether or not the raw material originates from genetically modified plants is not a criterion at INRO (and also not at ISCC and REDCert). There was no consensus during the debate to include this criterion. However, the companies can query this as additional information outside of INRO at any time.

Structure of the table:

The first column lists the sustainability criteria. Criteria describe which objectives shall be achieved, e.g. protection of the soil by preventing soil erosion, or soil protection through maintenance of soil structure and soil organic matter.

In the next column, the classification of the criteria is made into

- verifiable criteria (Basket 1). They are the basis for INRO
- verifiable, basis for the second stage of INRO (Basket 2)
- Basket 3: Not verifiable yet, although desirable

In the column "Explanations", the criteria and their verification are explained more precisely. In the column "Further defined " there are references to legislative texts, standards or certification systems where the criteria are listed, applied and possibly defined more precisely.

2/2013 Sustainability criteria INRO

decided INRO Session 10/4/2013

Basket 1: verifiable criteria, basis for INRO
Basket 2: verifiable criteria, basis for the second stage
Basket 3: non-verifiable criteria, although desirable

Principles and Criteria	Basket 1	Basket 2	Basket 3	Explanations	Further defined for example
Ecological criteria					
Protection of natural biotopes (no go areas)	V			This principle deals with the protection of areas a) with high value for biodiversity 1. Wooded areas 2. Areas reserved for nature conservation purposes, or 3. Greenlands with a high degree of biodiversity b) with high carbon stock 1. wetlands 2. continuously forested areas c) Peat bogs Those areas included held this status at the point of reference or later, regardless whether these areas are still holding this status	§§ 4-6 BioNachV (Administrative Regulation on Biofuel Sustainability Ordinance)
1. Protection of Areas with high conservation value					BioNachV § 4
Biomass not permitted to originate from wooded areas (point of reference 1/1/2008)	V			Wooded areas are 1. Primary forest and 2. Other untouched areas, a) which are covered with native tree species, b) which have no clearly visible indications of human activity and c) where the ecological processes are not significantly disturbed.	BioNachV § 4 (3) and BLE Guideline (III.1.a)

Biomass not permitted to originate from areas reserved for nature conservation purposes (point of reference 1/1/2008)	V		Areas reserved for nature conservation purposes are areas, which are accounted by legislation or by competent authority; and are: 1. recognized by international agreements or 2. listed in the directories of intergovernmental organizations or the International Union for Conservation of Nature and Natural Resources; The cultivation of biomass within protected areas might be carried out when complying with the given requirements. If cultivation takes place within an area reserved for nature conservation purpose, the cropping farm must keep record, confirming that the nature conservation requirements are met during cultivation and harvesting.	BioNachV § 4 (4) and BLE Guideline (III.1.b)
Biomass not permitted to originate from Greenlands with a high degree of biodiversity (point of reference 1/1/2008)	V		Greenlands with a high degree of biodiversity are Greenlands, that – without human intervention - 1. Would remain Greenland and whose natural species composition and ecological characteristics and processes are intact (natural Greenlands); or 2. would not remain Greenlands and are, additionally, species-rich and not degraded (man-made Greenland), except for cases where the harvesting of biomass is required for the preservation of its Greenland status.	BioNachV §4 (5) and BLE Guideline (III.1.c)
2. Protection of areas with high carbon stock				BioNachV §5
Biomass not permitted to originate from Wetlands (point of reference 1/1/2008)	V		Wetlands are areas that are covered or saturated permanently or for a considerable part of the year with water. In particular, those wetlands that are mentioned in the list of internationally important wetlands in accordance with Article 2, paragraph 1 of the Convention of February 2nd 1971 about Wetlands, particularly as habitat for waterfowl and waders of International Importance (BGBI, 1976 II p 1265).	BioNachV §5 (3)
Biomass not permitted to originate from continuously forested areas (point of reference 1/1/2008)	V		Continuously forested areas are areas bigger than 1 hectare, with trees higher than 5 meters and 1. a canopy cover of more than 30 percent or with trees that could reach this status, or 2. a canopy cover of 10 to 30 percent or with trees that could reach this status, unless this area has a carbon stock before as well as after the conversation, that enables the biofuel to reach the greenhouse gas reduction potential in accordance with § 8, paragraph 1 and in accordance with a calculation according to § 8 paragraph 3.	BioNachV §5 (4)
3. Protection of Peat bogs				BioNachV §6
Biomass not permitted to originate from Peat bogs (point of reference 1/1/2008)	V		Does not apply when growing and harvesting of the biomass did not require dehydration of areas	BioNachV §6

4. Partly wooded Areas					
Biomass not permitted to originate from Partly wooded Areas with a high degree of biodiversity (point of reference 1/1/2008)	v			Partly wooded Areas with a high degree of biodiversity are, in accordance with Article 17.4(b) and 17.4(c) RED, wooded areas that are: (i) species-rich or (ii) rare, threatened or endangered ecosystems or species recognized by international agreements or are listed by the directories of intergovernmental organizations or by national hazards lists or hazards lists of the International Union for Conservation of Nature (IUCN), unless it is proved that the extraction of raw materials does not run contrary to the conservation of biodiversity and the protection of rare, threatened or endangered ecosystems and species.	Indirectly through BioNachV § 8
Inclusion of all cultivated areas of an agricultural holding	v			The farm/ plantation to be audited does not have other production areas that do not comply with the requirements of this standard.	RSPO Principle 7, ISCC 4.1.6
Sustainable agricultural cultivation/good professional practice	v			The principle of good professional practice is a common principle in agriculture.	VO (EG) Nr. 73/2009 Cross Compliance and national legislation
1. Soil protection	v				
Avoiding soil erosion	v			Implementation and verification of active measures used to reduce the possibility of soil erosion.	ISCC 4.2.3.1, REDCert Checklist 2.6.1
Soil quality: preservation of soil structures and organic matter	v			Use of techniques to maintain or, if necessary, improve soil structure and raw materials; areas that are not used for agricultural production are properly maintained. National or local regulations are considered. Existing disposal bans on landscape elements (hedges, hedgerows, tree lines, copses, individual trees) are met.	ISCC 4.2.4, REDCert Checklist 2.7
2. Water protection	v				

Ensuring water quality	V		Ensuring water quality, prevention of nitrate eluviation and pesticides, prohibition of insertion of harmful substances, distance to riverbanks, buffer zones to preserve natural courses of rivers, output restrictions and blackout periods are met. The output occurs only on receptive soil. The specific requirements for output on agricultural land that is strongly sloped are met. During the output, an entry into surface water is avoided. A nutrient comparison is produced annually and documented.	REDCert Checklist 2.2; 2.4.6, ISCC 4.2.5; 4.2.6
Avoiding contaminant input into rivers and groundwater	V		Within the enterprise, those substances listed in List I and List II of the Directive 86/68/EWG are handled in a manner that allows no direct or indirect discharge to groundwater.	List I and List II of Directive 86/68/EWG, REDCert Checklist 2.1, ISCC 4.2.5; 4.2.6
Efficient irrigation and controlled water consumption	V		Permission exists for the abstraction of water for irrigation from groundwater and surface water. Irrigation is in accordance with the local legislation and without etiolating natural waters and in compliance with water rights. Reasonable justification by farmers necessary.	local legislation, ISCC 4.2.5.2, REDCert Checklist 2.8
Preservation of natural river courses	V			ISCC 4.2.2.1
3. Consideration of crop rotation	V		Reasonable crop rotation must be demonstrated.	
4. Environmentally compatible use of fertilizers and pesticides	V			
Controlled use of fertilizers and pesticides (according to demand)	V		Lists of fertilizers and plant protection including nutrient balances of the soil, local inspection, rules for responsible use, risk limitation of eluviation of nitrate, respect of bans of output, Consideration of soil conditions, protection of surface water, Reports of fertilizer use, proof of proficiency of workers, appropriate output.	ISCC 4.2.6; 4.2.8; 4.2.9, REDCert Checklist 2.2
Environmentally sound storage of chemicals	V		local inspection, protection against contamination, damage and secure storage	ISCC 4.2.5.1; 4.2.6.5; 4.2.6.6; 4.2.8.5; 4.2.9; 4.2.10, REDCert Checklist 2.2.6; 2.2.7
Exclusion of internationally prohibited chemicals and agrochemicals	V		Only plant protection products that are registered are used, application area (culture and pest organism) and the specific application determinations are respected.	Local legislation and FAO Intern. Code, ISCC 4.2.8.2; 4.2.8.6, REDCert Checklist 2.4.1

Sound handling of chemicals and sound disposal of chemicals containers	V			Qualification certificates, protective clothing for staff. The use of leftovers of crop protection products and packaging meets the applicable national or regional regulations.	ISCC 4.2.8.8; 4.2.9.7; 4.2.10, REDCert Checklist 2.2.9; 2.4
Documentation of chemicals use	V			Appropriate records of fertilizers that are used according to the crop (type of fertilizer, amount, date of application, etc.) are available. Report on the ground: reason for application, location, date, trade name of product, quantity, operator.	ISCC 4.2.6.3; 4.2.8.7, REDCert Checklist 2.2.5; 2.2.10 ; 2.4.2; 2.5.1
5. Waste management					
Using agricultural by-products	V			Organic fertilizer is used according to nutritional requirements. If organic matter, like Empty Fruit Bunches (EFB) or other remaining plant material is used in the production areas (mulched), the material is evenly distributed. Burning of stubble or other crop residues is allowed only with the permission of competent authority.	ISCC 4.2.4.2.
Environmentally sound waste storage and disposal of organic residues and wastes of the farm in consideration of waste prevention measures and recycling of waste from the plantation	V			The premises have adequate provisions for waste disposal. Farm waste management plans exist. Waste recycling avoids or reduces wastage and avoids the use of landfill or burning.	Local legislation, ISCC 4.2.10.5, 4.2.10.6
6. Greenhouse gas emission					
Greenhouse gas emissions measured in unit: x kg CO ₂ eq/kg	V			Part defaults are used or optionally single invoice	RED, EU Commission 10/06/2010 Guidelines for the calculation of land carbon stocks for purpose of annex V to Directive 2009/28/EC, ISCC Document 205 to Greenhouse gas-calculation and Audit.
Defining reduction targets			V		

Social Criteria

1. Compliance with the criteria of the ILO core working standards at the operative level	v				ILO 29, 87, 98, 100, 105, 111, 138, 182, in addition 110 (Plantations Convention)
Freedom of association and right to collective bargaining	v			Workers and employers, without distinction whatsoever, have the right to establish and to join organizations of their own choosing without previous authorization. Workers' and employers' organizations are not liable to be dissolved or suspended by administrative authority. Compliance with collective bargaining agreements can be proofed. Union members have the opportunity to exercise their function, at least outside their normal working hours.	see above
No forced labour	v			The use of forced labour is prohibited: <ul style="list-style-type: none"> • as a means of political coercion or education or as a political punishment against people who have certain political views or express or announce their ideological opposition to the established political, social or economic system; • as a method of recruitment and use of labor for purposes of economic development; • as a means of labor discipline; • as punishment for participation in strikes; • as a means of racial, social, national or religious discrimination 	see above
No child labour	v			ILO defines the upper limit for child labor under normal circumstances as 15 years.	see above
No discrimination	v			Discrimination refers to a group-specific discrimination or vilification of groups or individuals.	see above
2. Further social criteria:					
Availability of accomodation	v			The living quarters on site are habitable and have the basic services and facilities. The living quarters for the workers on the farm are habitable, have a sound roof, windows and doors, and have the basic services of running water, toilets and drains.	ISCC 4.3.1.9
Access to drinking water	v			Workers have access to clean food storage areas, designated dining areas, hand washing facilities and drinking water.	ISCC 4.3.1.8

Safe working conditions	V		First aid kits are accessible by all individuals within ten meters of the plant protection product and the chemical storage facilities. The accident procedure displays the basic steps of primary accident care. There are facilities to treat workers' contaminations. There are procedures dealing with re-entry times on the farm after plant protection products have been applied.	ISCC 4.3.1.2; 4.3.2
Protective clothing	V		Workers, including subcontractors, are equipped with suitable protective clothing in accordance with legal requirements. Protective clothing is cleaned after use and stored so as to prevent contamination of clothing or equipment.	ISCC 4.3.1.3., 4.2.7.1, 4.2.8.1.
Trainings and further education	V		All workers handling and/ or administering chemicals, disinfectants, plant protection products, biocides or other hazardous substances and all workers operating dangerous or complex equipment as defined in the risk assessment have certificates of competence. All workers received adequate health and safety training and have been instructed according to the risk assessment.	ISCC 4.3.1.6. and 4.3.1.7.
Adequate remuneration and working contracts	V		Industry fair wages appropriate to local conditions. Wage should guarantee basic security and discretionary income. For each worker identified in the documents, a contract exists that can be presented to the inspector upon request. Contracts are signed by both the employer and the employee. Documents must be kept at least for 24 months. If a population register is available, a copy of the working contract must be given to the competent authority.	ILO Convention 110.
Backing in case of illness	V			
Possibilities to lodge complaints on the operative level	V		Documentation is available that demonstrates that a clearly identified, named person of trust and/or a workers' council representing the interests of the staff to the management is elected by all employees and recognized by the management. This person shall be able to communicate complaints to the management.	ISCC 4.4.9.; 4.4.10; 4.4.11
Possibilities for children to attend primary school	V		All children at primary schooling age (according to national legislation) living on the farm have access to primary school education, either through provided transport to a public primary school or through adequate on-site schooling.	Internationale Covenant on Economic, Social and Cultural Rights, Art. 13; ISCC 4.4.12

Time recording, recording of overtime, breaks, holidays	V		Documents give an overview of all employees (including seasonal workers and sub-contractor) who are employed at the farm. They mark wage and period of employment and working hours and are available for at least 24 months.	ISCC 4.4.16; 4.4.17
Proof of land use right through producer	V		Documents show legal ownership or lease, land tenure, interviews with regional administration and NGOs, documentation of disputes about land use, traditional land rights have been secured.	Voluntary guidelines Land Grabbing UN, ISCC 4.5, local legislation
Inclusion of stakeholders into the proof of land use rights	V		A continued dialogue with surrounding communities and the civil society is held.	ISCC 4.4.8.
Fair contracts with farms and agricultural holdings	V		Contracts with subcontractors and all relevant documents are available, can interviews be held independently from the company?, prices are appropriate, standards equally to those of the employer. Contracts that regulate the production of biomass in the subcontract for other agricultural companies include the following characteristics: (1) The contracts are on paper in the appropriate language and consigned copies are available for both parties. In case of conclusion of contract with producer groups, all members receive a copy. (2) Payments for crop are calculated, documented, signed and given to the subcontractor for his documentation. (3) Indicators concerning the relation price – quality are documented transparent and clear in the contract. (4) The contract includes regulations concerning the possibility of termination of the contract, transfer of documents of property, and measures of compensation in the case of insolvency of the parent company – if required by law. (5) Documents show the existence of talks or negotiations on regular basis between parent company and co-contractor.	ISCC 4.6.3; 4.4.21
Compliance with the rights of indigenous peoples	V		Traditional land rights have been secured. Respective contracts are available, land register, if necessary information by regional administration and NGOs.	International Labour Organization Convention (No 169) concerning Indigenous and Tribal Peoples in Independent Countries und United Nations Declaration on the Right of Indigenous Peoples, ISCC 4.5.1
Biomass production does not impair food security		V	Biomass production is consistent with food security requirements and the Right to Food Guidelines. Biomass production shall not replace staple crops and does not impair the local food security. Local food prices do not rise as a direct effect of biomass production.	ISCC 4.4.22 FAO Right to Food Guidelines RSB Food Security Guidelines

Economic criteria

Recording system for each unit of production	v			A recording system is established for each unit of production. These records must be kept in an ordered and up-to-date condition for at least 3 years.	ISCC 4.6.1.
Registration of cultivation areas in use	v			Records are kept for the description of the areas in use.	ISCC 4.6.2.
Involvement of subcontractors	v			In case of employment of subcontractors, they too, must fully meet the standard and all relevant documents must be kept available.	ISCC 4.6.3.
CR (Corporate Responsibility) guidelines for business relations	v				OECD-Guidelines for multinational enterprises
Anti-corruption and bribery measures	v			Businesses should work against corruption in all its forms, including extortion and bribery.	Global Compact Principle 10, for rights of land use and environmental control see above
Transparency of payment flows	v			Records describing the areas in use must be available. In case of the employment of subcontractors, they must keep these relevant documents and information at hand as well.	OECD-Guidelines for multinational enterprises