Environmental management and biodiversity

ISCC PLUS 202-01
V 2.0
Content

1 Introduction ........................................................................................................................................ 4
2 Management plan phases ................................................................................................................ 4
3 Scope ................................................................................................................................................ 5
4 Normative references ....................................................................................................................... 6
5 Soil management plan ....................................................................................................................... 7
6 Water management plan ................................................................................................................... 8
7 Energy management plan .................................................................................................................. 9
8 Biodiversity Management Plan ...................................................................................................... 10
1 Introduction

The expansion and intensification of agricultural production systems from the 1970ies onwards and the structural changes which have taken place have considerably contributed to a loss of ecosystems, habitats and species with high conservation value. This trend is likely to continue in future and will lead to further loss of biodiversity.

In order to counteract this development, ISCC has set up an add-on with specific criteria on environmental management and biodiversity. The target is to support the maintenance and improvement of soil, water and biodiversity conditions and to reduce energy consumption. Agricultural producers, which decide to include this add-on in their certification scope, need to set up a

- Soil Management Plan
- Water Management Plan
- Energy Management Plan and
- Biodiversity Management Plan

2 Management plan phases

The management plans are composed of a phase of status determination and three phases of risk assessment and management:

(0) Status determination;
(1) Risk assessment and action plan;
(2) Action plan implementation, risk management and monitoring

The status determination serves as a tool to assess the current situation of the plantation. Thereby, the status determination is always referring to the relevant subjects of the specific management plan. E.g. within the status determination of the soil management plan, factors influencing the soil structure, stability, fertility and quality are assessed.

The purpose of the status determination is to form a basis for and initiate phase of phase (1) risk assessment and action plan. In this phase, an area is evaluated on the risks related to different risk factors. Natural risk factors as well as agricultural management risk factors are included in the risk assessment. Based on the risk assessment an action plan is developed. In the action plan, objectives and management measures are identified in order to improve the situation and minimize the risk. A timeline for implementation must be set. The action plan shall then be implemented continuously. Where risks have been identified, relevant parameters shall be continuously monitored in order to measure the development of the area and the success of the implemented practices.

In order to achieve a continuous improvement of the situation, the plan is implemented in a step-by-step process. The phase of status determination shall start prior to the first audit. The results of the status determination must be available in the first audit. In the following audit after one year a risk assessment of the areas and an action plan with targets and adequate management measures shall be in place. First management measures can already be implemented and listed in the action plan in the first phase. From the third audit, the auditor
must be able to see a continuous implementation of identified management measures. In the short-term the measures can include quick-wins. In the longer term the complexity of project should rise.

All project phases should include stakeholders, experts and locals in order to maximize the gain of knowledge. The level of performance and the impact of implemented measures shall be controlled by a continuous process of self-assessment and via independent external audits.

3 Scope

The scope of this document is to specify duties and requirements for biomass producers, which decide to establish and implement the add-on “Environmental management and biodiversity”. Further information and guidance on the implementation and verification of the requirements are given in the guidances and procedures of “Environmental management and biodiversity.”
4 Normative references

As a basic principle, all relevant ISCC documents are valid for the scope. The normative references display the documents whose contents are linked and have to be jointly considered.

Relevant references:

ISCC PLUS 103 Quality Management
ISCC PLUS 201 System Basics
ISCC PLUS 202 Sustainability Requirements – ISCC PLUS Standard on Sustainability Requirements for the Production of Biomass
ISCC PLUS 202a Sustainability Requirements – Equivalence Benchmark
ISCC PLUS 202-02 Classified Chemicals
ISCC PLUS 202-0n Options to add further Requirements for agricultural Production
ISCC PLUS 207 Risk Management
ISCC PLUS 252 Regulations to carry out Audits
ISCC PLUS 255 Add-ons and Extensions
ISCC PLUS 256 Group Certification
Guidance 202-01 Guidance “Environmental management and biodiversity”
Procedure 202-01 Procedure “Environmental management and biodiversity” for audits
5 Soil management plan

Crops should only be grown on suitable soils. In order to ensure a sustainable treatment of soils, good agricultural practices with respect to soil quality, soil contamination and soil erosion are addressed in the soil management. They refer to:

- Prevention and control of erosion;
- Maintaining and improving soil organic matter;
- Maintaining and improving soil structure and prevention of soil compaction;
- Maintaining and improving relevant soil parameters and prevention of contamination (balances of soil macro- and micronutrients, soil pH, salinization, hazardous substances)

A soil management plan shall be established in a continuous process beginning with the determination of the current status. The status of the area regarding soil type, precipitation and relevant soil parameters as well as current management practices has to be determined. During risk assessment the risks of the areas regarding wind erosion, water erosion, loss of soil organic matter, soil compaction, loss of soil fertility, the contamination with hazardous substances or salinization shall be identified. The management practice must also taken into consideration. Within the action plan, planned and taken measures to improve situation of a specific field or area are listed and a timeline is set.

A continuous improvement is guaranteed by implementing the identified management measures in a step-by-step process. Applying precautionary measures prevents soil degradation. Appropriate risk management measures could include inter alia

- Crop rotations and intercropping;
- Landscaping elements;
- An appropriate type and use of machinery

In order to maintain or improve soil conditions, periodic soil analysis shall be conducted on soil pH, macro- and micronutrients, salinization (via e.g. electric conductivity) and soil organic matter. Monitoring of soil contamination includes plant protection products, heavy metals, polyaromatic hydrocarbons (PAHs) or harmful bacteria. Relevant records shall be kept at least five years.
6 Water management plan

Irrigation water should only be abstracted in a way that recharge rates compensate water abstraction. Timing and amount of irrigation is tailored to crop requirements to meet planned yield and quality levels under local conditions. A water management plan is set up with the target to use irrigation water in a sustainable way and prevent water pollution. Good agricultural practices must be addressed in the water management plan. They refer to:

- Usage of sustainable water sources;
- Efficient water usage;
- Responsible usage of fertilizers and plant protection products;
- Wastewater discharge;
- Proper operation of the equipment

In an area, where a high risk of a groundwater lowering exists, alternatives to using groundwater as an irrigation water source should be considered. Sustainable water sources are rainwater. The objective is to minimize the removal of groundwater or at least minimize the effect of the respective plantation, farm. Thus, positive effects on the groundwater level are obtained in the long-term.

A water management plan shall be established in a continuous process, beginning with the determination of the current status.

Risk assessment should additionally refer to the crop-specific requirements and the water sources (suitability as irrigation water source). Appropriate risk management measures could include inter alia:

- Setting up buffer zones around water bodies;
- Efficient handling of fertilizers including sewage sludge;
- Wastewater treatment;
- Installing efficient irrigation techniques (including rainwater harvesting as a water source, drain design);
- Timing the irrigation appropriately to crop requirements

In order to maintain or improve conditions, timing of irrigation, applied irrigation water and – quality (e.g. biochemical oxygen demand (BOD)) shall be recorded. Records of the risk assessment as well as appropriate monitoring and management measures must be kept at least five years.
7 Energy management plan

An energy management plan aimed to reduce energy consumption must be established. Good agricultural practices refer to:

- Reduction of energy consumption;
- Usage of renewable energy sources

An energy management plan shall be established in a continuous process beginning with the determination of the current status.

Appropriate risk management measures could include inter alia

- Setting up insulation of farm buildings;
- Cleaning of thermostats;
- Regular maintenance of farm heating systems;
- Switching irrigation systems for optimal energy efficiency or;
- Improving indoor and outdoor lighting system

In order to maintain or improve energy consumption, periodic monitoring on energy usage and inspection and maintenance of equipment shall be conducted. Relevant records shall be kept at least five years.
8 Biodiversity Management Plan

ISCC has set up a tool to preserve regional conservation values and to improve structural as well as genetic variety.

Good agricultural practices with respect to biodiversity must be addressed in the Biodiversity Management Plan. They refer to:

- Maintaining or improving biodiversity around agricultural production area;
- Maintaining or improving biodiversity on agricultural production area;
- Purchasing or using of natural products;
- Hunting, fishing and gathering of threatened or endangered flora and fauna;
- Phase out of alien and invasive species

Biodiversity around agricultural production area refers especially to nearby areas of high conservation value, including areas with significant ecosystem services or functions and regional or global importance. Biodiversity on this area can be increased by e.g. installing proper buffer zones or wildlife corridors. Maintaining or improving biodiversity on agricultural production area refers especially to the situation of the agricultural production area and possibilities to increase genetic and structural variety here, by e.g. improving the situation of ecotones (the transition zone between production site and surrounding areas and paths), setting up landscape features or increasing crop variety.

Purchasing or using of natural products (fuel wood, composts, nursery substrates, manures etc.) from illegally collection or extraction is not allowed. It must be purchased from vendors and records on origins must be kept.

Hunting, fishing and gathering of threatened or endangered flora and fauna and the destruction of their habitats species is not allowed. Hunting, fishing and gathering of all other species is only allowed in designated areas of the farm and during specific times of years.

If alien or invasive species do occur on or around the farm and they are found to pose risks of invasions, the farmer shall take measures to phase out the use of species with a high risk of invasive behaviour or known invasive species. Any introduction must be in accordance with existing regulatory frameworks. On areas designated to biodiversity, like buffer zones or set aside areas, only species, which are naturally occurring within the region, should be used.

Exemplary measures for implementation:

- Set aside areas (set up or restore buffer zones, set up wildlife corridors to link fragmented habitats);
- Reduction in intensity of farming practices (e.g. reduction of amount and frequency of agrochemicals input on field);
- Switch from chemical pest control to biological pest control;
- Broadening of crop rotation;
- Switch to perennial cultivation;
- Measures to resettle native animal species (e.g. by setting up nest boxes, landing places for raptors);
- Landscaping elements (e.g. Hedges and wooded islands on the edge or in fields)
In the short-term the measures can include quick-wins (e.g. set up nest boxes or improve biodiversity within ecotones). In the longer term the complexity of project should rise (e.g. collaborations of different adjoining farmers or groups to set targets on a broader landscape scale, setting up proper crop rotation programs including legumes).

All project phases should include stakeholders, experts and locals in order to maximize the gain of knowledge. In future phase a collaboration of different adjoining plantations is desired to set targets on a broader landscape scale, especially for setting targets on ecological corridors.