CircHive

D3.1.2: Review of inclusion of NC & BD criteria in labelling and certification schemes, development of “ideal framework”

Part of D3.1: Living review and recommendations for mainstreaming BD in ESG (1st version)

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Authors:	Marion Hammerl (LCF), Katrin Tomova (Denkstatt), Ivan Paspaldzhiev (Denkstatt) and Annekathrin Vogel (LCF)
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Abbreviations

ASC	Aquaculture Stewardship Council
B2B	Business to business
BF	Biodiversity Footprinting
CSRD	Corporate Sustainability Reporting Directive
ESG	Environmental, Social and Governance
ESRS	European Sustainability Reporting Standards
FSC	Forest Stewardship Council
MSC	Marine Stewardship Council
QS	Quality Standard
NCA	Natural Capital Accounting

Goal of Task 3.1

The purpose of Task 3.1 is to review the landscape of current and upcoming ESG market practice around biodiversity (BD) and natural capital (NC) in order to inform data (WP1) and method (WP2) needs and steer project development. This work consists of three strands:

- Task 3.1.1: Corporate disclosure standards – focusing on ESRS reporting requirements under the EU CSRD and links to voluntary and mandatory standards.
- Task 3.1.2: Certification and labelling – focusing on ecolabels and management systems & their incorporation of biodiversity criteria.
- Task 3.1.3: Financial sector practice – focusing on the EU Taxonomy and the actual reporting practice of companies falling under the CSRD.

The overarching goal of Task 3.1 is to identify what data (WP1) and methods (WP2) are required for biodiversity management and how biodiversity footprinting (BF) and natural capital accounting (NCA) can be used to improve biodiversity management in ESG.

The work under Task 3.1 is a living review that will be hosted on-line on the project website (WP5) for public feedback, and updated once per reporting period.

This document considers Task 3.1.2 and focuses on voluntary standards and makes a review of their criteria with regards to biodiversity. It forms an integral part of *Deliverable 3.1: Living review and recommendations for mainstreaming BD in ESG (1st version).*

3.1.1 Introduction

There are thousands of voluntary standards addressing almost every type of consumer product on the market. These voluntary standards are considered industry best practices or “industry consensus” standards. They can be operated by public or private agencies at the national, regional or international level. Voluntary standards are becoming binding standards if they are the subject of contracts between parties or if compliance with them is mandatory by law. ISO 14024:2018 establishes the principles and procedures for developing so called “Type I environmental labelling programmes”, including the selection of product categories, product environmental criteria and product function characteristics, and for assessing and demonstrating compliance. ISO 14024:2018 also establishes the certification procedures for awarding the label, e.g. third-party certification. A certification with an ISO Type 1 standard is often a prerequisite for selling the product on the B2B market.

For the food sector, there are more than 400 different standards and labels with relevance for the European market. There are regional, national, European, and international standards organized by public and private standard organisations. Most of them are quality standards, others are focusing on the denomination of the origin, type of production or certain sustainability aspects. Examples for B2B standards are the QSStandard for various agricultural products or the 4C Coffee Standard. Well known examples of standards directed to the final consumer are the EU Ecolabel for Organic Products, the Rainforest Alliance Frog, MSC or Fairtrade.

In order to analyze how biodiversity is addressed by standards within the CircHive project, 21 standards have been screened for the sectors food, textile and wooden products (see Annex 1: List of standards screened). The matrix elaborated for the screening covers the most relevant aspects related to biodiversity and clustered according to the drivers of loss of biodiversity.

The matrix considers on the one hand the policy or strategy of the standard organisation and on the other hand the criteria which the producer needs to comply with to get and keep the certificate. See Annex 2: Screening Matrix.

3.1.2 Screening of the Standard Policy and Standard Criteria

Screening of the Standard Policy

The policy of the standard/label often includes a strategy and priorities, of which – ideally – biodiversity shall be well anchored in. The policy gives direction as well as foundations to define adequate criteria on biodiversity. The screening looked at the following six aspects:

- *Respect the mitigation hierarchy*
- *Have a principle of continuous improvement*
- *Monitor biodiversity performance of the certified organisations*
- *Go beyond legal compliance*
- *Provide support and training*
- *Set system boundaries to assess biodiversity*

Screening of the Standard Policy

Almost all studies on loss of biodiversity of the last 20 years (e.g. IPBES Global Assessment Report on Biodiversity and Ecosystem Services, 2019; Millennium Ecosystem Assessment, 2005) identified five direct **main drivers of biodiversity loss**:

- *Degradation and destruction of ecosystems (including « loss of genetic diversity »)*
- *Overexploitation of natural resources*
- *Invasive non-native species*
- *Pollution*
- *Climate change*

The screening focused on all drivers of biodiversity loss, except **climate change.** The screening assessed if the standard includes criteria/requirements to reduce the impact of the drivers of biodiversity loss. If criteria are included, they have been assessed according to the weighting, effectiveness, transparency, and verifiability.

Climate change mitigation is often already covered in other criteria such as resources and energy efficiency, limitation/optimisation of transport or soil tillage. The analysis of climate change criteria in the labels would be a project on its own and includes the risk of losing the focus on drivers of biodiversity loss, which are still less considered. Therefore, the project partners limited the screening only to one aspect: Does the standard request a risk assessment including climate change mitigation and adaptation?

Note: The authors of T3.1 as well as the whole CircHive consortium acknowledge that there are major links between biodiversity protection and climate mitigation and adaptation.

For each of the standards screened, an individual screening matrix with the results and recommendations for improvement was elaborated. Each standard was screened by a reviewer and another peer reviewer and different valuations of the policy aspects and criteria have been discussed between the two in order to come

to a joint conclusion. Criteria considered as very effective, and a positive example have been marked in green to consider them for the ideal framework for standards (see chapter 3.1.5).

The screening matrix will be sent to each standard organisation with the offer to have an exchange on the results and the recommendations. Furthermore, the standard organisations will be invited to participate in a workshop for the discussion of the draft “Ideal Framework for Standards and Labels” elaborated by the project team in January /February 2024. For further information see Chapter 3.1.5 Ideal Framework.

3.1.3 Summaries of Screening Results

For each of the standards screened, also a “Summary” has been elaborated using the following table:

Low = Standard has the listed criteria, but it is not effective
Medium = Standard has the listed criteria which are somewhat effective
High = Standard has very effective criteria
Very outstanding criteria /aspects = are mentioned explicitly in keywords in the right column.

Table 1. Template of the summary table of the reviewed standards/labels.

Topic	No coverage	low	medium	high	Really effective/innovative (Include information about important and innovative aspects related to the criteria)
Biodiversity Management					
Biodiversity Monitoring					
Soil /fertilizer management					
Pesticides Management					
Water /Water sources					
Livestock					
(Protected) species					
Waste					
Wastewater					
Pollution					
Alien Invasive species					
Training					
Cooperation					
Others ……					
CO2 – risk analysis					

Additional Comments (may include additional important information related to the label, free text): ……

The summaries were used as a basis for the elaboration of the overall results and conclusions out of the screening:

- Qualitative level of coverage of addressing the different biodiversity aspects (no coverage, low coverage, medium, high coverage);
- Really effective /innovative aspects found in the screened standards.

The summary results were put together in a table providing an overview. See Annex 3.

Not all topics are relevant for all 21 standards screened and this has been considered in the number of standards calculating the percentages. The following table includes the overall results.

Table 2: Summary of the overall results of the revised standards

Topic	Overall Results (green = highest percentage)
Biodiversity Management	26% of the standards do not have criteria on biodiversity management; 9% have low coverage, 40% have a medium coverage and 26% have a high coverage of the topic.
Biodiversity Monitoring	43% of the standards do not have criteria on biodiversity monitoring; 30% cover monitoring low; 13 % have a medium coverage and only 13 % have a high coverage of the topic.
Soil /fertilizer management	Relevant for 20 standards: 10% do not have criteria; 15% have low coverage, 25 % medium coverage and 50% high coverage of the topic.
Pesticides Management	Relevant for 21 standards: 5% has a low coverage of pesticide management; 52% have a medium and 43 % a high coverage of the topic.
Water /Water sources	Relevant for 22 standards: 9% do not cover the topic; 27 % have a low coverage; 18% medium coverage and 45 % high coverage of the topic.
Livestock	Only 5 of the 23 standards screened realize the certification of livestock farms.
(Protected) species	17 % of the standards do not have criteria regarding species protection; 35% have a low coverage, 35% a medium coverage and 13 % a high coverage of the topic.
Waste	4% does not have criteria on waste; 18 % have a low coverage; 60% have a medium coverage and 18 % a high coverage of the topic.
Wastewater	22 % of the standards do not have criteria on wastewater; 26 % have a low coverage; 39 % have a medium coverage and 13 % a high coverage of the topic.
Pollution	27 % of the standards do not have criteria on pollution; 30% have a low coverage; 13% a medium coverage and 30% a high coverage of the topic.
Alien Invasive species	48% of the standards do not have criteria; 13% have a low coverage; 26% have a medium coverage and 13% a high coverage of the topic.
Training	17% of the standards do not have criteria; 35 % have a low coverage; 26% has a medium coverage and 22 % a high coverage of the topic.
Cooperation	39 % of the standards do not have criteria; 22% have a low coverage; 30 % have a medium coverage and 9 % a high coverage of the topic.
C02 – risk analysis	61 % of the standards do not have criteria; 8.5 % has a low coverage; 22% has a medium coverage and 8.5 % a high coverage of the topic.

The main conclusions are:

Biodiversity Management is mainly covered by the food and forest management standards – including MSC - and most of the standards cover this key topic in a medium effective way. That means there is room for improvement. Textile standards mainly do not have criteria regarding biodiversity management. The standards with the most effective /ambitious criteria are Rainforest Alliance, Global GAP Biodiversity Add-On, MSC and FSC.

Most of the standards do not cover Biodiversity Monitoring yet, the few exceptions are MSC, Rainforest Alliance and Global GAP Biodiversity Add-On. During the audits, the auditing companies are collecting many data /information on farm or production level. But the standard organisations do not have access to the audit data – only in case of non-compliance. Since new legal reporting requirements are in place or in preparation, some standards (e.g. Fairtrade, Global GAP) are working on metrics and data collection in order to respond to the increasing requests by the companies which need to report on biodiversity within other sustainability issues.

Soil /Fertilizer Management is highly relevant for the food standards and one of the main topics. It is covered with criteria at a medium or high level. Within the group of textile standards, only Fairtrade covers Soil /fertilizer management at a high level, for the others there is big potential for improvement. FSC standard criteria are considered as medium in regard to effectivity.

Pesticides Management is the second big topic for the food standards and all standards have criteria considered with medium or high effectivity. ASC Standard for aquaculture has some criteria as well considered as low level criteria. Also, the six textile standards cover the topic on a medium or high level. But it is necessary to consider that the evaluation of pesticides management is difficult and depending very much on a fully integrated pest management, ambitious and updated negative lists of pesticides which cannot be used (e.g. including pesticides with negative impacts on (wild)bees), etc. The volume of pesticides used or the number of uses per year are not meaningful indicators, as toxicity and persistence of the substances are two of the main factors. NGOs mainly support the negative lists elaborated by the Pesticide Action Network (PAN) as the most advanced.

Water /Water sources is a topic considered by all standards except MSC (where it is not relevant), and Oeko Tex Organic Cotton and the EU Ecolabel for Textile Products (where it is relevant). 45 % cover this topic of increasing importance with high level criteria – but still only few standards make the connection between water use and water sources and with this the link to biodiversity. Besides effective use of water, few standards such as Global GAP Biodiversity Add On request that the farmer /producer knows the water sources and gets involved in a more sustainable management of this sources. Also, the protection of aquatic ecosystems with wide buffer zones is still not in as a criterion in all standards for farming.

Livestock: Only 3 of the 23 standards screened certify livestock farms covering the topic on a medium (2) or low (1) level. Here is room for improvement, e.g. reducing the maximum density of livestock and increasing the fodder autonomy of the farm.

(Protected) Species is a topic which is still not well covered by all standards. Less than 50 % include criteria on medium or high level for the protection of species. Protection of species should be considered in all biodiversity management plans not limiting activities to protected species but species in general – and specially insects. Food standard organisations gave the feedback that farmers do not report about the presence of protected species because they fear restrictions for production.

Waste is not or low covered by nearby 50 % of the standards screened. Only Global GAP, QS GAP, GG Biodiversity Add-On and the EU Ecolabel for Textiles have effective and ambitious criteria on waste. Here is a high potential to improve and contribute to the reduction of contamination by waste as well as recycling and circular economy.

Wastewater: 11 of 23 standards have no or low criteria on wastewater. Only one food standard and two textile standards cover this topic with high level criteria. Also, here is a high potential for improvement for most of the standards.

Pollution: In regard to agricultural production of food or raw material for textiles, the main pollution is by fertilizer and pesticide use. These two pollution sources are fairly covered by most of the standards. The problem of pollution of soil and aquatic sources by micro plastics produced by plastic used in agriculture is relatively new and not covered so far by the standards. ASC and MSC are considering pollution only at a low extend, although pollution from drug residues (e.g. antibiotics) is very relevant in aquaculture. Also, MSC should include criteria regarding waste management to avoid the contamination by old fishing nets, waste produced by the crew etc.

More than 60 % of the standards have no or only low criteria regarding alien invasive species. Only Global GAP Biodiversity Add-On and Europe Soy standard have sound criteria with high coverage of the challenge of invasive species. Potential for improvement lies mainly in including criteria such as being informed about native species in the region and seeking for advice from experts regarding control /elimination.

Training: 50 % of the standards requests the training of managers of farms /productions as well as the staff and the other 50 % does not or to a low extend. So far, only few standards offer training themselves (e.g. Fairtrade via Fairtrade Producer Networks), but they should request regular capacity building and even recommend organizations which can offer this.

Cooperation between neighbouring farms and/or with initiatives on regional level is needed, because biodiversity protection cannot stop at the farmgate and needs a landscape approach. But more than 60 % of the standards have no criteria or low criteria included.

CO2 Risk-Analysis: 70 % of the standards screened don´t yet require the assessment of the CO2 risks of the farm /the exploitation. Some food standards started to consider the topic of climate change with criteria on energy consumption and /or percentage of renewable energy, but these are exceptions. Only Rainforest Alliance and ASC Feed have highly effective criteria on this topic.

Innovative aspects found in the standards screened:

Biodiversity protection and management

- Only three standards defined a minimum quantity of habitats on the farm: Demeter (min. 10 % dedicated to biodiversity); Rainforest Alliance (10 % of natural vegetation for shade intolerant and 15 % for shade tolerant crops) and Global GAP Biodiversity Add-On (By 2030, the areas dedicated to biodiversity represent at least 10% of the total agricultural business area).
- Global GAP goes beyond the cut-off-date with the criteria that all natural or seminatural ecosystems and habitats and all areas with legally recognized conservation value (or effectively protected by other means) which had been converted into agricultural areas or into other uses between 1 January 2008 and 1 January 2014 are already restored, under restoration, or will enter binding restoration.
- Naturland includes a criterion on landscape management: An ecologically managed farm - as a component of the natural environment - is especially dependent on an intact ecological system. The farmer is therefore obliged to conserve and, if required, to recreate structural elements of the landscape, such as hedges, borders, humid areas, oligotrophic grassland and other elements. Also, Global GAP Biodiversity Add-On includes a specific reference /criterion to create Wildlife corridors and small landscape structures to improve connectivity for species on landscape level.
- The whole MSC standard is about biodiversity protection and management. MSC requests extensive information on habitats, ecosystems and fish stocks and related management strategies. There must be a monitoring control and surveillance (MCS) system in place as evidence that fishers comply with the requirements of the management system and there is no evidence of systematic non-compliance.

- MSC includes criteria for the protection of protected species, especially sharks, marine mammals. Very complete list for identification of endangered, threatened of protected species. Detailed steps for identification and scoring. Criteria to avoid unwanted catch. Criteria on stock rebuilding.
- Rainforest Alliance requests to minimize human-wildlife conflicts, e.g. not unnecessarily restrict wildlife mobility or access to water or other resources.
- ASC Feed has a requirement to identify all water sources used; calculate, record and report yearly water consumption; develop and implement a Water Conservation and Efficiency Plan (WCEP); and, in areas of high water stress, assess water supply impact on ecosystems and communities using the same water resource.
- Global GAP BiodivAdd-On: Risk Assessment including risks on water sources and water management plan are requested.
- FSC requirements to protect Woodland Key Habitats regarding live tree retention in harvests and preserving dead wood

(Agricultural) practises/ Impact drivers

- More and more standards describe in detail the requirements of an Integrated Pest Management.
- Fairtrade elaborated the Red and the Orange List of Pesticides together with the Pesticide Action Network PAN).
- Global GAP Biodiversity Add-On prohibits the use of neonicotinoids.
- So far, Global GAP Biodiversity Add-On is the only standard with a reference to the reduction /avoidance of micro plastics.
- The Regenerative Organic Certification has a criterion on organically approved pesticides that are highly toxic to pollinators, as defined by Xerces Society's "Toxicity of Common Organic-Approved Pesticides to Bees". They shall not be applied within 50-100 feet of a waterbody or applied when pollinators are in flight. They shall be applied at the lowest efficacious rate and all effort shall be taken to find alternative controls.

Overall, although the situation improved during the last five years and criteria with relevance for biodiversity is becoming more present in the standards, there is still a lot which should be added and/or improved. If standards achieve a good coverage of all aspects with relevance for biodiversity, they can play an important role in better biodiversity management of supply chains.

The summaries will be provided to the case study partners as they are really interested in having an indication how the standards are addressing biodiversity. A dedicated session to present the results will be organized internally. Furthermore, the summaries will be published on the CircHive website and can be used for workshops etc.

3.1.4. Inclusion of NCA & BF criteria in labelling and certification schemes

Biodiversity footprinting (BF) and Natural Capital Accounting criteria (NCA) are not currently present in the reviewed standards/labels, because the aim of standards /labels is to guarantee a certain quality of production and the resulting product. However, there are a number of existing standard requirements related to the main drivers of biodiversity loss which could be used for biodiversity footprinting or natural capital accounting. In the table below, the topics used to assess the standards/labels are listed along with potential links with BF and NCA:

Table 2. Biodiversity topics screened and linkages to BF and NCA

Topics	Link to biodiversity footprinting	Link to natural capital accounting
Biodiversity Management	No direct link but some inputs from assessments can be useful for BF and NCA	
Biodiversity Monitoring	Biodiversity monitoring can provide data on exact values which can be used for BF	Monitoring of biodiversity management plan can help track changes in concentrations over time
Soil /fertilizer management	Metrics on fertilizer usage can be used as input data for BFBF	NCA can be used to track progress over time.
Pesticides Management	Pressure metrics on quantities or thresholds for pesticides usage and management data can serve as a basis for BF analysis	
Water /Water sources	Some labels have specific requirements to track water usage/water withdrawn → this data can be used to analyze BF or track NCA	
Livestock density	No direct link with BF and NCA	
Species	Data on loss of species and presence of endangered species is useful for BF and NCA. Most reviewed standards do not request such information – only information on measures supporting endangered species.	
Waste	Data collected about waste quantity, microplastics, e.g. can serve as a basis for BF analysis	NCA can be used to track progress over time.
Wastewater	Most labels have data on wastewater thresholds, which requires companies to track this indicator → data can serve as a basis for BF	NCA can be used to track progress over time.
Pollution	Some standards have criteria on pesticide and fertilizer usage, which may provide input data relevant for BF.	NCA can be used to track progress over time.
Alien Invasive species	Few standards have requirements related to invasive species (invasive species abundance or coverage), but such information can be useful for BF and NCA.	
Training	No direct link with BF and NCA	
Cooperation	No direct link with BF and NCA	
C02 – risk analysis	Relevant for corporate efforts that are linked to biodiversity – GHG measurement and accounting in the land sector for SBTi FLAG.	

3.1.5 Elaboration of the “Ideal Framework” for standards and labels to address biodiversity and next steps

The project team wants to underline that the aim of the whole screening is not to compare the standards and /or benchmark them. The objectives are to:

- Provide standard organisations with an inside view on how the coverage of biodiversity relevant criteria is considered;
- Provide standard organisations with recommendations on how to improve standard policy and standard criteria with relevance for biodiversity with a focus on BF and NCA criteria which can potentially improve the labels.
- Identify sound criteria for the elaboration of the “Ideal Framework for Standards and Labels” in order to address biodiversity aspects in a complete and effective way. The criteria identified will not only be a good input, but also proof that the ideal framework is practicable.

The overall objective is to provide an orientation to standard organisations on how the ideal certification system should look like to effectively contribute to the protection, management and enhancement of biodiversity. The “ideal framework” will be informed by life-cycle criteria (BF), integrate NCA for tracking the current state of BD, and will serve to identify strengths and weaknesses and opportunities for improvement.

Next steps:

<u>The following steps are planned from December 2023 until end of March 2024:</u>

- ➔ Putting together the criteria considered as very effective and/or innovative during the screening of the 21 standards. These criteria are marked in green in the individual screening matrix of the standards. Clustering of the criteria according to the aspects of the screening matrix.
- ➔ Discussion in the team on what are the “ideal” criteria out of the “green” criteria (e.g. effectiveness, transparency, verifiability). Selection of the ideal criteria and transfer to the ideal framework.
- ➔ Identification of gaps, that means aspects where no green criteria has been identified.
- ➔ Elaboration of ideal criteria to cover the gaps and transfer to the ideal framework.
- ➔ Selection of key data and indicators for the criteria included into the ideal framework. These key data and indicators will be recommended for monitoring on farm level as well as on supply chain level (cooperative, group of farmers, etc.)
- ➔ Preparation of the draft “Ideal Framework” and discussion of the draft with standard and label organisations, companies, experts, NGOs …. (1 - 2 virtual workshops in February /March 2024). Expected results of the workshop:
  - Agreed ideal framework including priority setting (criteria which should be considered urgently, midterm, and longer term)
  - Agreed key data and indicators for monitoring and reporting
  - Description of the connections and synergies between the ideal framework for standards /labels and the Biodiversity Footprint methodologies
  - Next steps for rolling out the ideal framework (considering the policies on role of the EU and national legislations, consumer preferences and communication etc.).

Link to other WPs

The development of the ideal framework for standards/labels will be informed by BF and NCA criteria, drawing on the work developing in WP2 of CircHive. Table 2 provides a summary of potential links with BF and NCA, which will be explored further at the level of individual standards/labels.

Potential data requirements will be informed by the work of WP1.

The development of the ideal framework for standards/labels will be a useful addition to the case studies of WP4, and will be considered in the progress of WP3 Tasks 3.2 (sustainable business models) and 3.3 (foresight and capacity building). Potential policy recommendations stemming from development of the ideal framework will be relayed to Task 3.4 and disseminated accordingly to relevant policy stakeholders. Links between the ideal framework and the international standardisation landscape related to nature and biodiversity will be considered under Task 5.4 (standardization).

Project Partners

Recognising, measuring and reporting on the value of nature

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