

BIODIVERSITY LOSS: TIME FOR ACTION

The loss of biodiversity is one of the biggest challenges of our time. Species loss driven by human activities is occurring 1,000 times faster than by natural succession processes. Many ecosystems, which provide us with essential resources, are at the risk of collapsing. The conservation and sustainable use of biodiversity is not only an environmental issue but it is a key requirement for our nutrition, production processes, services and overall good quality of life.



Biodiversity is defined as the diversity within species (genetic diversity) between species and of ecosystems.

Relationship between Agrifood-Sector and Biodiversity

The role of agriculture across the globe is to provide a good and safe diet for a fast-growing world population and to ensure stable livelihoods. Traditionally, agriculture was important to develop biodiverse cultural landscapes. Approximately 50 % of European species depend on agricultural habitats. Today, unsustainable policies, consumption patterns in industrialized countries and emerging economies have led to an intensification of agriculture. Highly intensive production systems and the enormous exploitation of agricultural land have made agriculture to one of the main drivers of biodiversity loss. Agriculture today contributes to a change in land use, the destruction of primary ecosystems, over-exploitation and pollution of water and soils. Non-native invasive species are spreading worldwide and agricultural biodiversity, the diversity of varieties and breeds, is being lost.

In a recent study¹, the UN Environment Programme states:

“Globally, food systems are responsible for

- ◆ 60 % of global terrestrial biodiversity loss,
- ◆ around 24 % of the global greenhouse gas emissions,
- ◆ 33 % of degraded soils,
- ◆ the depletion of 61 % of ‘commercial’ fish populations, and
- ◆ the overexploitation of 20 % of the world’s aquifers.”

Agrifood-Sector to Sustain Biodiversity

In combination with the agricultural sector, food processors and food retailers have a huge impact on biodiversity. Despite its direct dependence, biodiversity conservation and protection is still not the main concern of this sector. With the support of food standards and through individually defined, goal-oriented sourcing requirements, the food sector can make a significant contribution to curbing biodiversity loss. Appropriate integration of biodiversity aspects into sourcing strategies will help companies to analyze biodiversity related risks that may affect internal operations, brand management or regulatory and policy changes. A good biodiversity conservation strategy goes hand in hand with increasing opportunities for differentiation in the market, value proposition, consumer satisfaction and more efficient sourcing strategies.

¹ UNEP (2016) Food Systems and Natural Resources. A Report of the Working Group on Food Systems of the International Resource Panel. Westhoek, H, Ingram J., Van Berkum, S., Özay, L., and Hajer M.

Biodiversity in Standards and Labels for the Food Industry

This Easy Guide is part of the EU LIFE Project “Biodiversity in Standards and Labels for the Food Industry”. The main objective of the project is to improve the biodiversity performance of standards and sourcing requirements in the food industry by helping standard organisations to integrate efficient biodiversity criteria into their schemes and motivating food processing companies and retailers to include comprehensive biodiversity criteria into their sourcing guidelines. The Initiative was launched by a European consortium of Global Nature Fund, Lake Constance Foundation, Agentur AUF! (Germany), Fundación Global Nature (Spain), Solagro and agoodforgood (France) and Instituto Superior Técnico (Portugal). The initiative is supported by standard organisations, companies from the food sector as well as public institutions.

European Project Team:



The project is supported by:

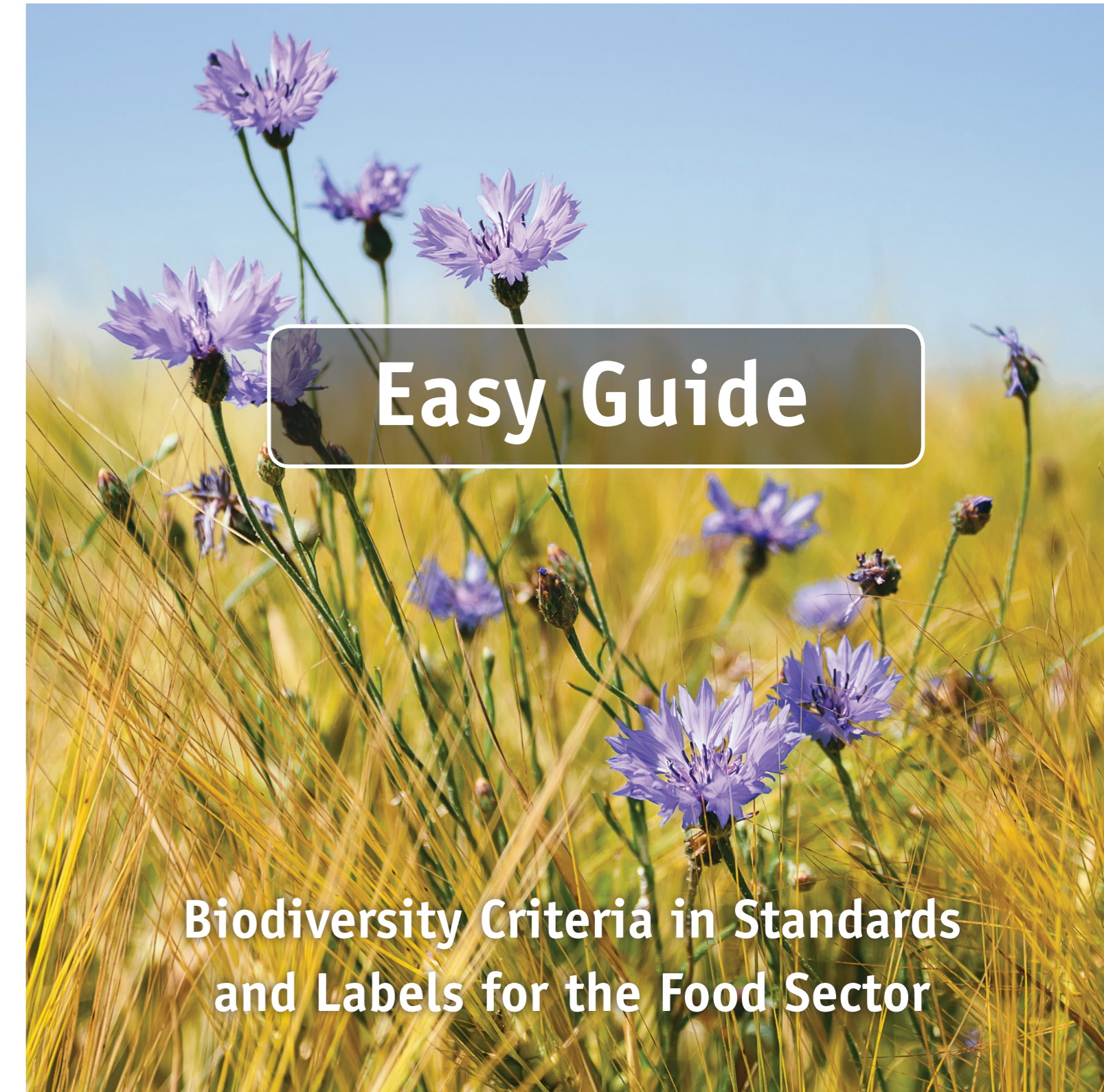


Recognised as core initiative of:

We appreciate the support of our partner standards and companies:



Further information: www.food-biodiversity.eu



Easy Guide

Biodiversity Criteria in Standards and Labels for the Food Sector

With the support of:



BIODIVERSITY in STANDARDS and LABELS for the FOOD SECTOR



Easy Guide for Quality and Procurement Managers

Standards and labels in the food sector ensure defined quality criteria for a product and its production. They provide businesses and consumers with information on quality, environmental and social footprint and impacts on biodiversity.

This Easy Guide is particularly designed for quality and procurement managers of companies that are responsible for purchasing food products. The guide provides insights into the status quo of biodiversity criteria and measures in policies of standards and company requirements as well as an overview of formulations for effective biodiversity criteria. The guide helps managers to assess the current situation and significance of biodiversity in relation to standards or procurement guidelines. Standards with reasonable biodiversity policies and effective criteria will make a significant contribution to the conservation of biodiversity.

How to Identify Good Biodiversity Policies in Standards and Sourcing Guidelines?

A screening of 54 regional, national and international standards for the food sector and requirements of food companies revealed a clear demand for improvements. Product and quality managers are encouraged to check the policy of a standard and the sourcing guidelines of their company with regard to:

Definition	Food standard organisations must provide definitions for all terms used. These definitions should be generally accepted e.g. where possible taken out of international conventions and regulations. Where terms are used for which no common definition can be found, the standards must provide own definitions.
Scope	The scope of the food standard/procurement guidelines should not be limited to the agricultural farm, because impacts on ecosystems and/or on fauna and flora go beyond a farms border. Efficient biodiversity management is due at landscape-scale.
Holistic Approach	Standards/procurement guidelines should follow the mitigation hierarchy to aim at a “no-net-loss of biodiversity” target on farms. A long-term strategy and collaboration with suppliers is the most promising approach to reach this goal.
Baseline	Standards should require a baseline description of the semi-natural habitats and measures taken on the farm and its surroundings. An approach to continuously improve the quantity and quality of measures for biodiversity should be pursued, identifying the main threats to flora and fauna and incorporating them into a Biodiversity Action Plan (BAP). All measures need to be monitored with transparent objectives and Key Performance Indicators.
Monitoring	Standards and companies should require the mapping of natural and semi-natural habitats on the farm and adjacent areas including protected areas and those of high value for flora and fauna. Protected animals/plants according to national law or the IUCN red list should also be mentioned. A regular monitoring using the Key Performance Indicators will provide results that can help to change action plans.

Mitigation Hierarchy

Avoidance:	Measures taken to avoid impacts from the outset
Minimization:	Measures taken to reduce the duration, intensity and/or extent of impacts
Rehabilitation/ restoration:	Measures taken to rehabilitate degraded ecosystems or restore ecosystems
Offset:	Measures taken to compensate for any residual significant, adverse impacts that cannot be avoided, minimized, rehabilitated or restored. Offset can contribute to achieve no-net-loss or a net gain of biodiversity.

A recent screening of 54 regional, national and international standards for the food sector and requirements of food companies has shown that there is room for improvement in policies and criteria related to biodiversity. The results of the screening and conclusions are published in a **Baseline Report of the LIFE-Project Food & Biodiversity**. Find the download here: www.business-biodiversity.eu/en/baseline-report.

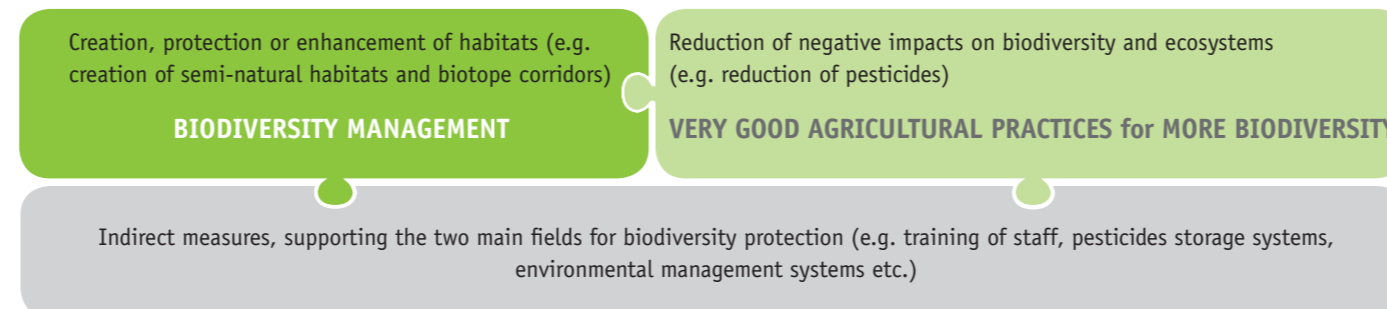
A report with recommendations for effective biodiversity criteria and policies in standards and procurement guidelines will be available at www.food-biodiversity.eu.



What are Characteristics of Good Biodiversity Criteria?



Good biodiversity criteria should meet the following aspects:








- ◆ Criteria must be ambitious and realistic (good indicators are SMART = Specific, Measurable, Achievable, Realistic and Time-Bound)
- ◆ Criteria need to be clearly defined, without room for interpretation and provided with performance indicators
- ◆ Criteria need to be verifiable and traceable
- ◆ The role of the different stakeholders involved (farmers, processors, food companies, etc.) must be clearly specified
- ◆ Documents must be simple and understandable
- ◆ The workload allocated to each stakeholder in relation to implementation, and especially to reporting, must be reasonable and balanced
- ◆ Criteria are linked to actions with a verifiable positive effect on biodiversity (effectiveness). Positive effects can mainly be reached within the following two pillars of biodiversity protection:



How to Identify Good Biodiversity Criteria?

Biodiversity links to various aspects of the production system and farm management. The following table shows some examples for the main fields of action to create potential for biodiversity. These examples are only to be understood as reference points and cannot be used as criteria without further development (indicators, means of verification etc.).

BIODIVERSITY MANAGEMENT	
Field of action	Examples of topics to be addressed in the criteria
Biodiversity Action Plan 	<ul style="list-style-type: none"> » A Biodiversity Action Plan (BAP) must be requested with the following characteristics: <ul style="list-style-type: none"> – Baseline information (e.g. habitats, protected species) – Identification of biodiversity issues in the region of sourcing/farming – Measures to protect /restore semi-natural habitats and promote ecological corridors – Specific action to protect endangered species – Regular monitoring to assess improvement regarding development of biodiversity
Land Management 	<ul style="list-style-type: none"> » No production in primary ecosystems (e.g. primary tropical or boreal forests, peatlands and wetlands) and in protected areas / IUCN protected areas categories I-IV » Natural habitats and semi-natural habitats on the farm must be identified and well managed » Areas of high value for biodiversity (e.g. protected areas, HCV areas, primary/diverse ecosystems etc.) must be protected and farmers need to have information on the location of such areas in their region. Any agronomic use of such areas must ensure the high value of these areas for conservation » Promotion of semi-natural habitats and their connectivity (protection, restoration, creation) » Promotion of collaboration between farmers with respect to nature and biodiversity conservation in the region

VERY GOOD AGRICULTURAL PRACTICES FOR MORE BIODIVERSITY	
Field of action	Examples of topics to be addressed in the criteria
Invasive Species 	<ul style="list-style-type: none"> » Invasive alien species on the farm are identified and reported to the responsible nature protection authority or technical institutes » In case of imported products and before products are transported from the farm, the farm operator shall carry out an inspection to ensure that no invasive alien species entering or leaving the premises
Wild Collection 	<ul style="list-style-type: none"> » No hunting, fishing, gathering of protected/endangered species » Wild collection has to be sustainable. Aspects to ensure sustainability (e.g. regeneration rates) must be defined
Soil Management 	<ul style="list-style-type: none"> » The impact of water and wind erosion must be minimized and measures to counteract these events are required » Soil analysis (including organic matter content) must be conducted regularly » Soil should be covered as long as possible at least during times prone for nutrient leaching (rainy seasons) » Crop rotation patterns need to be addressed (e.g. on the total area of the farm a minimum of three different main crops (different crop families) are cultivated annually; at least a four years crops rotation is followed) » Grazing intensities must be defined and kept at a sustainable level (livestock unit/ha grassland) » Livestock production units must be self-sufficient in at least 50 % of the animal forage feed (calculated annually) and this feed must come mainly from direct grazing
Water Management 	<ul style="list-style-type: none"> » Farmers must document the amount of water they withdraw. They prove that they are fully informed about the situation of aquatic ecosystems in their respective watershed » Overexploitation of water sources is strictly prohibited. Farmers must participate in a water management plan for the watershed » Irrigation patterns and methods must be evaluated and adapted to the regional situation » Degradation of water bodies is prohibited. Buffer zones of a certain size (e.g. 10 meters in width), covered with native vegetation must be established. Fertilization and the use of plant protection products on such elements is prohibited
Fertilizer and Pesticide Use 	<ul style="list-style-type: none"> » The use of organic fertilizers instead of mineral fertilizers is preferred » Substitute pre-emergence herbicides by mechanical weeding in early stages » Control disease/pest thresholds actively on each field and use fungicides/insecticides only after all preventive measures have been implemented and thresholds were verifiably met » The promotion of beneficial organisms is a key measure advised by the standards and a focal point of the farm operation's preventative pest controls » The standard has a Negative List of Pesticides » Non-selective herbicides cannot be used
GMO 	<ul style="list-style-type: none"> » The use of GMOs should be prohibited
Agrobiodiversity 	<ul style="list-style-type: none"> » The use of traditional breeds and varieties must be promoted » Help to the farmers for entering markets for traditional breeds and varieties must be provided