



Fact Sheet: Biodiversity in the Food Industry



Food Retail

The loss of biodiversity, alongside climate change is currently one of the largest and most important challenges. It is believed that the current rate of species extinction, due to human influences, is up to 1,000 times higher than the natural extinction rate. Many of the vital resources and services, which are underpinned by biodiversity, are provided to us by ecosystems that are at risk.

Companies use these ecosystem services and natural resources in various forms and thereby have a large impact on nature. Therefore, even by just considering economic reasons, companies depend on the conservation of biodiversity and a steady decline in biological diversity can become a risk for many businesses in the future. At the same time, a proactive approach to conserve biodiversity can create new business opportunities.

The food retailing is the last link of a globalized supply chain and plays an important role when it comes to the protection of biological diversity: on the one hand, food retailers for the large part do not manufacture products themselves, but can at the same time influence the decisions of the consumers. In addition, the majority of agricultural production is sold by the retail trade and the retailers themselves have a direct contact with consumers. Both aspects situate the food retail sector in a privileged position to foster “sustainability by consumption” and to support the protection of biodiversity.

Negative Impacts on Biodiversity

Scientists from all over the world agree that the main causes of the loss of biodiversity are:

- Degradation and destruction of ecosystems
- Overexploitation of natural resources
- Climate change
- Emissions/Pollution
- Invasive alien species

Whereas the reduction of emissions is a „traditional goal“ of environmental management systems and climate change increasingly taken into consideration via the reduction of energy consumption and greenhouse gases, other aspects are rarely considered. Therefore, this fact sheet places special emphasis on the degradation of ecosystems, overexploitation of natural resources and invasive alien species and further describes direct and indirect opportunities for companies to take these aspects into account.

Due to the high energy consumption for cooling, energy management as well as transport and its negative impact on the climate play an important role for the food retail sector. These issues are not discussed in detail here. Detailed information on the state of the art (including "Benchmarks of Excellence") can be found in the draft reference paper for the retail sector, which is available in English under <http://susproc.jrc.ec.europa.eu/activities/emas/retail.html>.

Many food companies sell private brands and are therefore largely responsible for the food production and have direct influence on the contract farmers and their method of production. The link to food production is only made circumstantially in this fact sheet, but in relevant sections further information is given.

Strategy/Management

The management provides the framework for continuous improvement of the company's biodiversity performance. Businesses and environmental auditors should try to answer the following questions:

- *Does the company comply with all legal requirements in the field of nature conservation?*
- *Have you systematically evaluated direct and indirect impacts on biodiversity?*
- *Do your environmental impact assessments explicitly include biodiversity?*
- *Can targets and measures be measured and verified?*
- *Are there significant monitoring key data and indicators?*
- *Which Global Reporting Initiative standards are met by the company regarding biodiversity?*
- *Does the employee training program include biodiversity aspects?*
- *Is your company actively engaged in a national/European business and biodiversity initiative?*
- *Is there a strategy to involve local initiatives (Philosophy of Access and Benefit Sharing)?*

How many questions can your company answer with yes? Of course, a yes tells us nothing about the quality of the strategy or measure. Nevertheless, these findings are an important first step and show the need for action, in other words useful measures for the benefit of the company.

Determining materiality of biodiversity for companies

All certifiable environmental management systems require a company to determine the materiality or significance of an environmental aspect. How can you determine the significance of biodiversity, without having to perform the same extensive studies?

In the following you will find an example of how a few relevant and sector-independent questions and their simple weighing can be used to determine the degree of materiality. This proposed approach could (and should) be supplemented by industry-specific questions.

It can be helpful if the company does not only rely on its environmental officer in assessing the materiality of biodiversity but also includes the department heads of all operations and the relevant external stakeholders (scientific institutions, nature conservation authorities and environmental NGOs). This can be achieved through an open dialogue or through comparing the different appraisals.

Impact on	Corporate Activity
Ecosystem/ Biodiversity	Are the corporate activities associated with land use? <i>No = 0 Points; Insignificantly = 1 Point; Significantly = 3 Points</i>
	Does the company or direct suppliers operate in the vicinity of protected areas or areas with high biodiversity value? <i>No = 0 Points; Yes = 3 Points; Unknown: 3 Points</i>
	Is the company directly or indirectly dependent on ecosystem services? <i>No = 0 Points; Dependent = 1 Points; No Information = 3 Points</i>
	Does the company process mineral raw materials or inputs derived thereof? <i>No = 0 Points; insignificantly: 1 Point; important input: 3 Points</i>
	Does the company process raw materials stemming from plants or animals or inputs derived thereof? <i>No = 0 Points; Insignificantly: 1 Points; Important input: 3 Points</i>

	Does the company trade in protected species or parts of these (ref. CITES) <i>No = 0 Points; Yes = 3 Points</i>
	Does the company use genetically engineered agricultural products or corresponding products? <i>No = 0 Points; Yes = 3 Points</i>
	Does the company own premises with outside areas? <i>No outside areas = 0 Points; Small areas = 1 Point; Bigger areas = 2 Points; Big areas = 3 Points</i>
	Do green areas or other ecologically valuable structures (biotopes) exist on the company premises? <i>None = 0 Points; One biotope = 2 Points; Several biotopes = 3 Points</i>
	Has the company restored habitats and/or compensated for damages to nature? <i>Not relevant, no impacts = 0 Points; Yes = 1 Point; No = 3 Points</i>
Overuse of natural resources	Is water a significant input for the company or its suppliers? <i>Insignificantly = 1 Point; Significantly = 2 Points; Very significantly = 3 Points</i>
	Does the company or its suppliers operate in water scarce regions? <i>No = 0 Points; Yes = 3 Points; Unknown = 3 Points</i>
Alien invasive species	Does the company carry out international deliveries or does it order these? <i>No = 0 Points; Insignificantly = 1 Point; Significantly = 2 Points</i>
	Is the company aware of any alien invasive species on its premises? <i>No, occurrence = 0 Points; Yes = 1 Points; Unknown = 1 Points</i>
0–8 Points = immaterial significance ; 9–13 Points = medium significance ; more than 13 Points = high significance	

A risk assessment can be used as well to determine the significance of biodiversity and ecosystem services. A lot is currently being developed in that field but long term experiences with different tools are still lacking. It can be expected that significant progress will be made in the next year in assessing corporate risks related to biodiversity and ecosystem services. Therefore it is recommended to try to keep up with the newest developments.

Examples: Indicators for Strategy/Management:

- *Number of sites of the company, which were checked for their proximity to protected areas and biodiversity hotspots*
- *Number of employees trained in biodiversity conservation issues*
- *Number of employees taking part in biodiversity volunteering activities*

Stakeholder

Since biodiversity is a complex sphere of activity, companies often rely on external expertise. Through scientific institutions, nature conservancy agencies or environmental organisations, companies can access information on biodiversity relevant questions on cosmetic value added processes. Also, NGOs and research institutes can be helpful in the planning and execution of pilot projects, e.g. in the field of sustainable resource use and supply chain management.

Possible Measures:

- *Stakeholder-mapping: analysis of stakeholders and their objectives as well as potential contribution for the company in promoting biodiversity*
- *Collaboration with international/national/local organisations in the area of biodiversity*
- *Framing of transparent structures for stakeholder dialogue i.e. participation of interest groups*

The number of organisations is not an indicator revealing the quality of collaboration. However, it is difficult, to define an indicator for the quality of co-operations, projects, dialogues etc. Characteristics such as continuity of collaboration or degree of implementation of the expert recommendations might be an indication of the collaboration quality.

According to EMAS Annex II B.5, the integration of stakeholders is necessary. In order to facilitate a successful integration an adequate framework must be designed and implemented. Existing participation structures including transparent handling of requests related to biodiversity by stakeholders can be seen as a proxy indicator for a successful biodiversity management.

Company Premises and Properties

The EMAS environmental core indicator on biodiversity is the use of land. Many organisations are not happy with this indicator because it reflects only part of the biological diversity, and for numerous enterprises has no significance as the negative impacts through land use for company offices are considered negligible. Therefore, land consumption should be considered as an indicator to be supplemented – according to negative impacts the company might have identified.

In food retail land use plays a major role, as well as the location and design of the surfaces. With a near-natural design of the outdoor facilities, the company can contribute to the preservation of the local biodiversity.

Possible Measures:

- *Native shrubs and trees (standard fruit trees, hedges, etc.)*
- *Unfertilized flowers or herb lawn, flower strips*
- *Weakly vegetated surfaces such as gravel and marl courts, fallow land*
- *Dry stone walls, rock piles, wood structures*
- *Conventionally green facades (no "Living Walls" with high water and fertilizer needs)*
- *Biodiversity-friendly green roofs*
- *Traffic areas (streets, roads, parking lots) with infiltration enabled coverings without sewer drainage*
- *Insect-friendly outdoor lighting*
- *Nesting boxes for birds and insects*
- *Only natural pest control*

The food retail sector usually provides a large contingent of available parking spaces for the customers. Parking spaces with infiltration enabled coverings contribute to the improvement of rainwater management and reduce costs for communities with high wastewater charges. Native bushes and hedges increase the value of a parking space and their shading also shield cars and the area itself from heating up in summer months (Bass B., Baskaran B.: “Evaluating Rooftop and Vertical Gardens as an Adaptation Strategy for Urban Areas”, 2003, NRCC-Report 4673740).

The largest energy consumption of a food retailer is caused by air conditioning and the cooling of fresh products. Green roofs can reduce the energy demand for cooling of the building by up to 75% on hot days (Bass B., Baskaran B.: “Evaluating Rooftop and Vertical Gardens as an Adaptation Strategy for Urban Areas”, 2003, NRCC-Report 4673740). Furthermore green walls support this natural cooling effect. If green roofs are used extensively and native plants are used for the greening, they additionally have a high value for the native flora and fauna.

For many years, the Swiss Foundation Nature and Economy has certified close to nature designed premises and published best practice examples (<http://www.naturundwirtschaft.ch/>). For interested companies in Germany the Heinz Sielmann Foundation together with Global Nature Fund and Lake Constance Foundation offer a free of charge initial assessment (<http://www.naturnahefirmengelaende.de/>). You can also refer to the guideline for near-natural premises „Moderne Unternehmen im Einklang mit der Natur“ of the Landesanstalt for the Environment Baden-Württemberg.

Payment for restoration and maintenance costs of ecosystems or species protection projects in compensation for built up areas are useful measures – not only as regards biodiversity, but also for economic reasons as food production highly depends on intact landscape and nature.

Key Data and Indicators for Company Premises/Properties:

- *Percentage share of unsealed areas in relation to the total surface area of the company*
- *Percentage share of near-naturally designed company grounds in relation to the whole property*
- *Size of green roofs and/or green facades (m²)*
- *Preservation or restoration of ecosystems as a compensation of the sealed surfaces, e.g. reforestation, (financial) support of protected areas (% compared to the impervious area)*

Purchasing/Supply Chain

Through the selection of products and suppliers the purchase has a significant influence on the entrepreneurial activities in the field of biodiversity. A food company offers thousands of products from many different suppliers in their selection. The evaluation of the products with regard to their effects on biodiversity should be made gradually.

How can you start this process? The first step is to identify the "most important" products and the review of their effects on biodiversity. "Important" can be interpreted in different ways, e.g. important for the company in terms of sales or other business components and/or important regarding the potential negative impact on biodiversity and the associated risks for the company. Factors for prioritisation of the products or product groups are amongst others the volume of the production area, the high susceptibility to pests and the associated use of pesticides.

There are a number of studies that deal with the effects of agriculture on biodiversity. The Lake Constance Foundation provides some important information in their Baseline Report "Biodiversity in Standards and Quality Labels of the Food Industry" (see below). The comprehensible selection of products/product groups and the transparent priority setting (A, B, C) must be ensured and communicated in the environmental or sustainability report.

In addition to quality and profitability aspects the purchasing should have binding criteria in the area of biodiversity and should formulate minimum requirements for the selection and the single products. A must is the development of a "no-go list" with products which generally may not be sold: fish from overfished fishing areas or trawling, products with substances of protected/endangered animal or plant species, product on which the production obviously offend the statutory nature conservation requirements. No-go products must not get into the selection – whether canned or as an ingredient.

A buyer for a given product group is not an expert on biodiversity because it is not his core business. He needs assistance or guidance to identify which products hold risks for biodiversity and which have been manufactured in an environmentally and ecologically friendly way. Unfortunately, there is no comprehensive biodiversity label and the numerous standards for the food industry consider this field of action in a very different way. Among the few standards that focus on the protection of biodiversity, the MSC label (Marine Stewardship Council) for products from sustainable fisheries is one example.

"Biodiversity in standards and quality labels of the food industry"

The Lake Constance Foundation and the Global Nature Fund have screened the criteria of 20 standards and labels for the food industry with regard to their relevance to the protection of biological diversity. The results and the conclusions were summarized in a baseline report:

<http://lebensmittelstandards.business-biodiversity.eu/>

The conclusions offer a good orientation for the development of the company's own guidelines for producers and suppliers of private labels.

About 50% of the carbon footprint of the German industry – including the food industry – is caused in developing countries. Among other things a study that is published in the journal *Nature* (Lenzen et al: "International trade drives biodiversity threats in developing nations", 2012) found out that 30% of all endangered species are threatened by international trade and are now on the Red List.

Some particularly problematic products and ingredients, e.g. palm oil, soybean oil, coffee and cocoa have been identified since a long time and *round tables* have been established to reduce the negative effects on biodiversity. From the perspective of environmental organisations all voluntary commitments still have enormous potential for improvement, but at least a start was made. Companies – producers, processors and trade – should use their influence to force companies to develop their voluntary commitments and to make a significant and measurable contribution to the protection of biodiversity. Moreover the possibilities of influencing the standard organisations are given because usually they involve their stakeholders in the revision of criteria. The protection of biodiversity must have a high priority for all standards and labels.

Basically it is positive when a company pays attention to the customers and the overall selection and provides ecological and socially sustainable variants in addition to the conventional products. Besides, regional and seasonal products as well as fair-trade products, especially product segments that cannot be covered at the regional level (e.g. coffee, cocoa, tea, chocolate), must be offered. However, it should be state that “regional” is not automatically environmental and/or biodiversity-friendly and that also organic farming needs improvement related to the protection of biodiversity. The buyer has the opportunity to speak directly to regional producers or suppliers and to find out whether specific actions in favour of biodiversity are taken.

The integration of suppliers is crucial to the quality assurance and the protection of biodiversity. It is important that the grocer put biodiversity on the agenda, e.g. at supplier forums and in the evaluation of suppliers under supplier audits. It is a good first step to inform the suppliers about the fact that biodiversity is an important issue for the company – and to ask what the suppliers do for the protection of biological diversity. This feedback can give an important input for the formulation of requirements to suppliers.

As mentioned earlier (strategy/management), the training of employees is of great relevance to procurement, destination and product managers, because they decide whether the final product is biodiversity-friendly or not. Purchasing managers should have a list of standards and labels taking biodiversity criteria or concrete parameters into consideration for excursions or other leisure activities. Of course, support from the management to prioritise these standards for suppliers, service providers and withstand the price pressure is crucial.

Measures:

- Check the main product, raw materials and services in terms of their relation to and impacts on biodiversity
- Identification of the products/services with the most negative impacts on biodiversity (significance test) – delisting or designing them to become more biodiversity-friendly
- Inform suppliers and service providers that the protection of biodiversity is one of the major goals of the company and ask them what measures they take
- Integration of biodiversity aspects in training for suppliers/services
- Integrating criteria for the protection of biodiversity in the specifications for suppliers/services
- and monitor their compliance
- Implementation of supplier audits
- Integrate biodiversity aspects into professional training of suppliers/services
- Influence standard setting organizations so that they further develop the conservation of biodiversity

Key Data and Indicators for Procurement/Supply Chain:

- *Number of products/services tested in terms of their impacts on biodiversity (percentage of total number)*
- *Number of suppliers/service providers questioned about their biodiversity performance (percentage of total number)*
- *Suppliers/service providers trained in biodiversity (percentage of total number)*
- *Number of product/services with existing purchasing instructions in terms of biodiversity criteria*
- *Number of certified products/services (percentage of total volume)*

Logistic/Transport

The most important environmental issue in the area of logistics and transportation is the cause of climate-relevant emissions. All measures that contribute to climate change also provide a benefit for biodiversity. Direct effects on biodiversity have the transportation infrastructure : e.g. in the case of sealing a complete loss of natural soil functions (soil fertility, oxygen production, habitat, decomposition) with a partial loss of the functions of habitats of adjacent areas (“road effect zone”) can be found.

Roads separate habitats and therefore hinder animals to access resources which lead to the isolation of populations. The decline of genetic diversity leads to lower adaptability and to inbreeding as the worst long term consequence. Through the dispersion of spores and seeds e.g. via hoofs and pelt plants can be affected as well.

For otters, beech martens, wild cats and other animals’ death in traffic is the most likely cause of death and therefore a main reason for the entry as Red List species for threatened species. More a subordinate issue but important as well: Carelessness in transportation can lead to the spread of invasive species.

Companies will now ask what they can do to reduce the negative impacts. Roads are needed and the food industry cannot influence their planning. That is true, but by reducing distances and increasing efficiency companies can directly contribute to reducing the need to build new roads. In addition, companies are influential stakeholders and can support NGOs in their demand to conserve buffer zones for especially sensitive and valuable areas.

Possible measures to reduce negative impacts:

- *Short transport distances*
- *Optimized planning of routes*
- *Optimized distribution network*
- *Consider transport efficiency – optimized utilization and reduced empty trips*
- *Training of drivers*
- *Equip own fleet with alternative motors*
- *Use of “three-chamber” trucks that can transport fresh, refrigerated and deep-frozen goods*
- *Work with transport companies which can prove continuous improvement of their environmental performance with a certified environmental management system.*

When selecting carbon offset projects, it is important to avoid the establishment of questionable tree monocultures and it is necessary to ensure that social standards as well as biodiversity conservation are included. Oro Verde and the Global Nature Fund jointly prepared guidelines summarising the most important aspects:

<http://www.globalnature.org/bausteine.net/f/7502/ForestCarbonGuidelines-GNFOroVerde-2011.pdf?fd=0>

Key Data for Logistics/Transport:

- *Share of regional products (≤ 50 km)*
- *Share of regional/local suppliers*
- *Number of contracted transport companies with certified environmental management system*
- *Key data/indicators from the environmental management on reduction of CO² and other greenhouse gases*

Product Design/End-product

As food retailer the company is only directly involved in the product design if it is a private brand product. To improve the protection of biodiversity in the food production the causes for the loss of biodiversity need to be tackled.

Possible measures:

- *Protection of ecosystems is not just an issue for production in overseas countries but also for agricultural production in Central and South Eastern Europe and relevant habitats (for example orchards). Regional and national standards should include criteria for the protection of primary and semi-natural ecosystems. It is important to define in advance primary and semi-natural ecosystems or similar terms.*
- *In Germany, biodiversity is at risk on the one hand by the land abandoning by farmers and on the other hand by the intensification of agriculture which means that ecological structures must be supported and protected. In this case the EU's agricultural policy talks about ecological compensation areas. The standards should specify criteria for ecological compensation areas on the area of the certified company and define its type, extent and minimum quality.*
- *The creation of "natural islands" is only effective to a limited extent. Standards should encourage farms to provide areas and landscape elements for the conservation, which connect ecosystems or habitats to each other and contribute in this way to habitat corridors. This requires a management plan that determines the status quo and assesses the potential of the area by an expert.*
- *Criteria which exclude the import of foreign feedstuff contribute to the fact that ecosystems in other countries, e.g. Latin America will not be destroyed and also reduce the risk that involuntary import of alien invasive species is being reduced.*
- *GMO-free raw materials are a key factor for the preservation of biodiversity in the food industry. They also have positive effects on the conservation of ecosystems.*
- *Changing crop rotations support soil diversity and therefore soil fertility. Also they reduce the intensity of pests and suppress unwanted weeds. As a result the need to apply herbicides is reduced.*
- *Food producers should apply an efficient nutrient management and implement nutrient balances according to accepted methodologies. This is a concrete and efficient measure with positive impacts for biodiversity and climate protection.*
- *The point in time to deploy organic fertiliser and the composition of the environment are important parameters for the environmental impact as well.*
- *Uncertified producers as well should ban the use of critical substances before they are legally prohibited and should apply strict positive lists for pesticides.*
- *Food producers should demonstrate a continuous improvement with regards to the use of fertilisers, pesticides and herbicides (management approach).*

Further proposals for possible measures with regards to supplier requirements can be found in the recommendations of the baseline report on biodiversity in food standards (<http://lebensmittelstandards.business-biodiversity.eu>).

Trade standards that define product quality (appearance, minimum size etc.) are a significant barrier to the diversity of varieties. Some of the requirements stem from the EU Commission and are counterproductive. Here the retail sector together with other stakeholders – including the standards – are required to use their influence to better incorporate biodiversity aspects in quality specifications. Other important decision makers are consumers, who are not aware of the impact of their quality requirements on biodiversity. Retail should use its communication potentials to raise awareness among consumers. The messages to customers should have two aspects: First, fruits and vegetables are healthy and could have a good taste even if they do not look perfect; scab for example is a sign of reduced pesticide use. Second, grains, fruits and vegetables should not be limited to a few varieties. Old cultivars are often much more resistant than high-yield varieties and require less pesticides. In addition, diversity in crops and livestock is an important component of biological diversity.

A food retailer that does not directly influence the production can still influence its product range (see procurement) as well as the presentation of the product range or by offering alternatives to plastic bags. In general, all environmental protection measures are beneficial for nature conservation. Comprehensive information and best practice examples have been compiled by the European Commission in their EMAS reference document on food retailing: <http://susproc.jrc.ec.europa.eu/activities/emas/documents/RetailTradeSector.pdf>

Marketing/Communication

As the last link in the chain and with direct contacts to the consumers, food retailers have a special responsibility. While they cannot tell the consumer what to buy they can strongly communicate sustainability issues and raise awareness among consumers and influence their decisions.

Many surveys and studies show that consumers' interest in biodiversity is slowly and steadily increasing. According to the Biodiversity Barometer 2012 country specific differences still prevail: In France 95% of the interviewed consumers have heard about biodiversity. In Germany it is only 48%. The sources of information are the conventional media but also blogs and the internet. Only 19% said that they have heard about biodiversity through corporate communications.

The study on nature awareness 2011 of the Federal Agency for Nature Conservation underlined a high awareness:

- Nature conservation is seen by a large majority (86%) as important political task and as human duty (95%).
- Important personal reasons for the protection are health and recreational benefits provided by nature and the conservation of the livelihood of future generation as well as the right to exist of animals and plants.
- The term “biological diversity” is known to 71% of the interviewees but only 42% can define it. Those who have heard about biodiversity mostly use it synonymously with species diversity (in 96% of the answers). The diversity of ecosystems and habitats is mentioned often as well (68%), genetic diversity on the other hand is mentioned less often (37%). Compared to 2009 the number of participants who name habitats and ecosystems has doubled while the number of those mentioning genetic diversity has even tripled. The complex nature of the term is thus better understood. It is possible that increasing media coverage of the term has increased the awareness.
- Participants think that for the conservation of nature companies and industry (76% think they should do more), but also federal and state authorities (58% and 52% respectively) as well as citizens (57%) need to be more active. The majority (62%) of participants feels personally responsible for the conservation of nature and is willing to contribute either through consumption behaviour or voluntary commitment. The interest in information in ecologically and environmentally sound alternatives is high.

Retailers have many options to inform consumers with regards to food and biodiversity. The protection of biodiversity is an emotional issue and can – in comparison to climate change – be illustrated more tangibly. An aspect that is easy to grasp is the dependence of agriculture from pollination services which can preeminently be used for activities for the protection of wild bees and other pollinating insects.

Possible measures for marketing:

- *Inform consumers about the added value of biodiversity friendly products*
- *Information for the consumer on the different labels and standards in the food sector. The overview should include the most important criteria and the differences between the standards*
- *Advertisement brochures explain standards and labels briefly*
- *Include biodiversity issues in advertisement brochures and explain how it can be found in the store*
- *Provision of “seasonal” calendars*
- *Support “biological diversity” with products that have been produced in an especially biodiversity friendly way.*
- *Offerings to experience biodiversity, e.g. trips to farms that are actively working on biodiversity protection.*
- *Fulfillment of GRI-Criteria for sustainability reporting.*
- *Projects for protection of biodiversity which are supported by the company (number of projects, quality of objectives, measures and results)*

It is desirable that a tour operator supports ecosystem and biodiversity conservation projects – in a way to compensate for the biodiversity footprint, which cannot be prevented. NGOs and the public sector are constantly seeking financial support, particularly in times of limited resources. The promotion of biodiversity projects should be a “voluntary exercise”, and not affect continuous reduction of own negative impacts. Furthermore, the projects should fit to the company's product range, and cooperation with an NGO or authority should be based on partnership. It is not purely a matter of purchasing a service. If the commitment is credible and reality is communicated accordingly and not as the silver bullet a company does not have to fear any greenwashing accusations.

Also transparency and proportionality are essential for communication towards stakeholders. As a standard for reporting the Global Reporting Initiative has developed indicators on how to report about biodiversity. Four indicators have been defined:

- Owned or rented facilities in or in the vicinity of protected areas and other areas with high biodiversity value outside of protected areas
- Description of significant impacts of corporate activities, production and services on biodiversity in protected areas and areas with high biodiversity values outside of protected areas
- Protected and restored habitats
- Number of threatened species on the IUCN red list and on the national list of protected species which have their habitat in areas impacted by the organization, sorted by category

Diverse initiatives offer sustainability checks and external assessment of reports according to GRI Guidelines:
<https://www.globalreporting.org>

Measures and Key Data/Indicators for Marketing/Communication:

- *Consumers and public receive information on biodiversity: number of people reached*
- *Monitoring of responses is available, responses are analysed*
- *Biodiversity conservation projects supported by the company (number of projects, quality of objectives, measures and results)*
- *Biodiversity conservation activities involving customers (number of activities, quality of objectives, measures and results)*
- *Fulfilment of GRI criteria for sustainability reporting*
- *Active involvement of stakeholders (e.g. nature conservation organisation) in environmental resp. sustainability reporting (number and quality of involvement)*
- *Biodiversity as a media communication issue (number of press releases and/or press trips, number of journalist s involved...)*
- *Number of relevant GRI criteria related to biodiversity that are fulfilled in the sustainability report*

Legal Compliance

Legal compliance in the field of environment is an important element of EMAS validation. ISO 14001 also demands the organisation to evaluate its compliance with legal requirements (§ 5.2.). Businesses across all sectors should be aware of laws and regulations relevant to biodiversity conservation.

These are primarily nature conservations acts such as the Birds and Habitats Directives at European level and its corresponding nature conservation act at national level. Of course, environmental legislation is also relevant to biodiversity conservation. Particularly important for businesses is the Environmental Liability Directive (ELD). An overview of the European and international nature conservation legislation is available at:

<http://www.business-biodiversity.eu/default.asp?Menu=140>

Useful Measures and Key Data/Indicators for Legal Compliance:

- *The company has an overview of the current legislation relevant to biodiversity. Employees are informed about relevant laws and regulations and have access to legal texts (collections of laws, access of the employees to legal database yes/no)*
- *Training of employees in the case of new legislation and amendments (number of qualified employees)*
- *The company requires from all suppliers/service providers a declaration that environmental and nature conservation legislation are respected (number of suppliers/service providers who have signed this declaration)*
- *Continuous increase in the number of suppliers/service providers holders of environmental management certification (percentage of the total number)*
- *Training of suppliers/service providers in legislation relevant to biodiversity (percentage of qualified suppliers and service providers)*

Publications, Studies, Links

Management and general aspects

EU Commission – EMAS Sectorial Reference Document for the Retail Sector
<http://susproc.jrc.ec.europa.eu/activities/emas/documents/RetailTradeSector.pdf>

Corporate Biodiversity Management Handbook. A guide for practical implementation
www.bmu.de/fileadmin/bmu-import/files/english/pdf/application/pdf/handbuch_biodiversitaetsmanagement_bf_en.pdf

Alien Species in Europe
<http://www.europe-aliens.org>

Global Reporting Initiative: Approach for Reporting on Ecosystem Services: Incorporating ecosystem services into an organization's performance disclosure.
<http://www.bipindicators.net/LinkClick.aspx?fileticket=s9Q16GObfEw%3D&tabid=155>

"Eco4Biz - Ecosystem services and biodiversity tools to support business decision-making" is a structured overview of existing tools and approaches published by the World Business Council for Sustainable Development
<http://www.wbcsd.org/eco4biz2013.aspx>

Greening of company premises

Guideline on greening of premises „Moderne Unternehmen im Einklang mit der Natur“ Landesanstalt for Environment Baden-Württemberg.
http://www.lubw.baden-wuerttemberg.de/servlet/is/224023/moderne_unternehmen_im_einklang.pdf?command=downloadContent&filename=moderne_unternehmen_im_einklang.pdf

Greening of premises. Stiftung Natur und Wirtschaft, Switzerland.
<http://www.naturundwirtschaft.ch>

Procurement

Guideline: Sustainability in the supply chain
http://www.unglobalcompact.org/docs/issues_doc/supply_chain/SupplyChainRep_DE.pdf

Guideline: Sustainability in the supply chain for SMEs
http://www.unglobalcompact.org/docs/issues_doc/supply_chain/Supply_Chain_Practical_Guide_SMEs_DE.pdf

Shopping guide: Website of the WWF on fisheries
http://wwf.panda.org/what_we_do/how_we_work/conservation/marine/sustainable_fishing/sustainable_seafood/seafood_guides/

Information on fisheries by Greenpeace
<http://www.greenpeace.org/international/en/campaigns/oceans/overfishing/>

Conservation of old species – Verein zur Erhaltung der Nutzpflanzenvielfalt e.V.
<http://www.nutzpflanzenvielfalt.de/gem%C3%BCse-des-jahres>

Red List of threatened domestic crops in Germany
<http://pgrdeu.genres.de/index.php?tpl=roteListe>

Slow Food Foundation for Biodiversity
http://www.slowfoodfoundation.com/welcome_en.lasso?-id_pg=1

Overview and assessment of labels, standards etc.
www.labelonline.de

Standards Map provides information on more than 130 Standards, codes of conducts, Audit-protocols that address the global supply chain as hotspot
<http://www.standardsmap.org/>

Biodiversity Criteria in Standards and Quality Labels for the Food Industry – Baseline Report
<http://lebensmittelstandards.business-biodiversity.eu/global/download/%7BAQBLEEPPRG-34201417149-GJHNZTUIYY%7D.pdf>

Biodiversity Criteria in Standards and Quality Labels for the Food Industry – Website
<http://lebensmittelstandards.business-biodiversity.eu/default.asp?Menu=1>

Biodiversity initiatives for companies

European Business and Biodiversity Campaign – Knowledge pool, Case studies, Experts
www.business-biodiversity.eu

Biodiversity in Good Company – Member initiative
www.business-and-biodiversity.de

Additional information

The Economics of Biodiversity and Ecosystem Services (TEEB) is a study about the value of the natural capital
<http://www.teebweb.org>

TEEB for Business puts a special focus on the impacts on and dependence of the private sector regarding biodiversity and ecosystem services
<http://www.teebweb.org/teeb-study-and-reports/main-reports/business-and-enterprise/>

TEEB for Agriculture and Food
http://www.teebweb.org/wp-content/uploads/2014/03/TEEB-for-Agriculture-and-Food_Concept-note1.pdf

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More information: www.business-biodiversity.eu



Picture-Proof

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