Basic Knowledge
Companies and Biodiversity – Areas of Action and Practical Advice

Information module 1

biodiversity jenga | © Martin Sharman | Flickr

INFORMATION MODULE 1 | GENERAL INTRODUCTION

Biodiversity and ecosystem services – this is the business of business

Dear Sir or Madam,

What do businesses have to do with biodiversity and how should they get involved? "Basic knowledge: companies and biodiversity" is a series of short, cross-industry information modules for companies interested in finding out more on this topic. The modules offer guidance, suggestions and advice, helpful not only for large, but also smaller businesses. The 'Biodiversity in Good Company' Initiative published the German version of these publications in the framework of a project promoted by the German Federal Agency for Nature Conservation (BfN) and the German Federal Ministry for the Environment. This is an English edition of the series, adapted for international use. Enjoy reading!

Your 'Biodiversity in Good Company' Initiative

The area of activity
What this is all about

Biological diversity, in short biodiversity, is the natural portfolio of ecosystems, habitats, species and their genetic diversity – a life insurance policy for present and future generations. It is everyone's business. Even companies rely on a healthy planet: All economic processes directly require or at least assume the existence of ecological resources. Companies are already dealing with many environmental matters. The protection and sustainable use of biodiversity is an issue that increasingly appears on the radar, be it because of new legal obligations or changes in the markets. Multinational corporations as well as medium-sized companies should become aware of their respective capacity and potential to overcome the biodiversity crisis, as it is one of the biggest challenges facing sustainable development.

Preserving biodiversity is one of the preconditions for ensuring that nature can produce its ecosystem services, services upon which we all ultimately depend. We are talking about much more than the protection of individual species such as bees, polar bears or yellow-bellied toads. It is in fact about intact soils, adequate drinking water and food, fuel and medicines, flood protection, prevention of soil erosion, climate regulation, carbon storage as well as varied landscapes. High biodiversity is a good guarantee for the adaptability and resilience of nature.

Economic growth and prosperity have always competed with nature. But never before has humankind with its growing population, hunger for resources and growing consumption put so much pressure on other species and ecosystems. The awareness of the associated risks and hidden costs is growing. The best approach, as with climate protection, is to apply the precautionary principle to be able to master unpredictable risks. The extinction of species and degradation of ecosystems is progressing at a rapid pace: there is global consensus that the current rate of extinction is 100 to 1,000 times higher than the natural rate would be without human influence. This is the largest mass extinction since the disappearance of dinosaurs and goes far beyond what can be regarded as sustainable. According to the Living Planet Index (LPI), the number of identified mammals, birds, reptiles, amphibians and fish in the past 40 years has been halved. The pressure on natural resources and land use is growing.

The Global Biodiversity Outlook 4 (2014) summarises the latest data on the status and trends of biodiversity. The report concludes that significantly greater effort is needed than currently demonstrated to achieve global protection goals.

CAUSES OF THE LOSS OF BIODIVERSITY – INTIMATELY INTERTWINED WITH PRODUCTION AND CONSUMPTION

It is possible to distinguish five main reasons for the loss of and threats to biodiversity.

- **Pollution**
  emissions, nutrient input etc.
- **Climate change**
- **Overexploitation of natural resources**
- **Destruction/alteration of habitats**
  by changing land and water use
- **Spreading of invasive alien species**

MINI GLOSSARY

Biological diversity/biodiversity: The diversity of species, the diversity of habitats (ecosystems) and the genetic diversity within each species.

Ecosystem: Refers to the components of a defined natural area or a specific natural habitat type and their interactions. The term can refer to different spatial levels (local, regional) and includes both (semi-)natural and near-natural as well as ecosystems shaped by human activity (e. g. agricultural ecosystems). » Own English translation based on a definition of www.naturkapitalteeb.de

Natural capital: Analogous to physical or human capital the term refers to nature and its components from the perspective of their economic value. It is an economic metaphor for the limited supply of the physical and biological resources of the earth and the limited provision of goods and services by ecosystems. » Own English translation based on a definition of www.naturkapitalteeb.de

About 60 % of the ecosystem services examined in the Millennium Ecosystem Assessment have been and are being degraded or used unsustainably, including fresh water, capture fisheries, air and water purification, and the regulation of regional and local climate, natural hazards, and pests. (Source: Millennium Ecosystem Assessment 2005)

THE POLICY FRAMEWORK AND SEARCH FOR SUSTAINABLE ANSWERS

There is a bundle of policy approaches to protect nature and biodiversity. The above causes of biodiversity loss make it clear: Policies and regulations for biodiversity are closely linked to the extensive legislation on environmental protection, climate action and resource conservation. It is anticipated that the regulatory pressures on businesses will increase. Some important strategic and statutory cornerstones:

» **International:** In 1992 at the United Nations Conference on Environment and Development the international community agreed on the Convention on Biological Diversity (CBD) to protect biodiversity. It pursues three objectives: The conservation of biodiversity, the sustainable use of its components and the equitable sharing of benefits arising from the utilisation of genetic resources.

» **Regional and national:** The CBD Strategic Plan 2011 – 2020 of the CBD creates the global framework for policy and action plans of the Parties to the Convention.

Example EU: The implementation of the CBD in EU Nature Legislation is carried out primarily in the protected area strategy enshrined in the Habitats Directive as well as the Birds Directive. The EU Biodiversity Strategy 2020 came into being in 2012.

Example Germany: In 2007 the German government adopted the National Biodiversity Strategy. More and more German states are setting their own strategies. The Federal Nature Conservation Act (BNatSchG) as well as numerous guidelines, directives, laws and regulations govern various aspects of nature conservation. Sections 13pp of BNatSchG on impact regulation apply to the private sector. In 2013 the German Federal Ministry for the Environment created a new platform as a forum for cooperation between associations and organisations from industry and nature conservation, namely: Enterprise Biological Diversity 2020 (UBi 2020, only available in German. A summarised version in English is available at Enterprise Biological Diversity 2020.)

» **Argument from an economic perspective:** TEEB – The Economics of Ecosystems and Biodiversity: More and more countries want to improve their understanding and visualisation of the value of ecosystems and biodiversity as well as improve integration of TEEB into policy decisions. They support the TEEB Initiative.

» **Act and make decisions on a scientific basis:** The IPBES (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services) was founded in 2013 as an intergovernmental body to provide expert policy advice.

Why act?
Utilise opportunities, reduce risks

The creation of protected areas is an important component of the policy. However, biodiversity can only be effectively protected if national and regional opportunities are utilised by the private sector and society. This includes sustainable land use in the entire landscape, restricting emissions and conserving nature.

Companies should actively face the challenges and help shape the discussion on the possibilities and limits of corporate responsibility. Undoubtedly: There are sectors that have a special responsibility and on which a lot depends. Agriculture, for instance, is responsible for more than half of the land mass in Germany. Ultimately, through the value chains we are all sitting in the same boat and can do something. Ecosystems are efficient and adaptable, because nature is ingenious. However, they too have their limitations.

2.6 billion people depend directly on agriculture. But over 50% of agricultural soils are suffering greater or lesser degrees of deterioration. (Source: United Nations Convention to Combat Desertification)

More than 70,000 plant species are used in traditional and modern medicine. (Source: IUCN)

Particular attention should focus on overcoming a variety of conflicting interests generated by the ecological footprint of production and consumption. Bearing in mind the global use of commodities, resources and land use, we need a sophisticated approach involving joint innovations and investment encompassing business locations as well as value chains.

Five trillion US dollars: The estimated annual value of ecosystem services generated by the world's 100,000 protected areas. (Source: International TEEB study)

Around one third of global food production depends on insect pollination and the services of other animals – the equivalent of three figure billions every year. (Source: IUCN)

MINI GLOSSARY

Ecosystem services: nature's immensely valuable dividend – a good reason to act

Ecosystem service: Refers to both the direct and indirect contributions of ecosystems to human well-being, that is, services and goods that deliver economic, material and psycho-physical health benefits. » Own English translation based on a definition of www.naturkapitalteeb.de

The protection of natural capital costs money. In order to increase investment in the preservation of natural capital – because its availability is just not unlimited and free of charge – the value of biological diversity can be understood from the perspective of the benefits provided to people, sometimes expressed in numbers. This is the idea behind the ecosystem services concept and the TEEB strategy. There are four types of ecosystem services:

Provisioning services: providing basic commodities and raw materials such as water, food, energy or precursors for medicines

Regulating services: regulating the climate, air and water supplies

Cultural Services: cultural, aesthetic, scientific, emotional enrichment – from recreation (tourism) to providing models for technological innovation (bionics)

Supporting services: the basis and prerequisite for provisioning, regulating and cultural services. Supporting services include, for example, soil formation, nutrient cycling and primary production through to photosynthesis.

ENTREPRENEURIAL FORESIGHT: IDENTIFYING IMPACTS AND DEPENDENCIES

Nature delivers important ecosystem services and natural resources. Therefore businesses benefit from and are responsible for different opportunities and risks, impacts and dependencies. Their interests differ widely. The different business models mean that companies have greater or lesser scope and influence on nature and biodiversity protection. The biggest challenges are often hidden in the supply chain. All companies should focus on their own courses of action.

» **Sectors in the spotlight:**
Sectors whose activities are associated with major intervention in the landscapes have a lot of leverage in protecting biological diversity. This applies, for instance, to the primary sector (farming and forestry, fishing industry, raw materials/extractive industry), the construction industry or the tourism sector. They can intervene directly on their own or leased properties.

» **Understanding impacts and dependencies:**
Some sectors have particularly big impacts on biodiversity but are less dependent on biodiversity (e.g. raw materials/extractive industries). In others the impacts and dependencies are equally high (e.g. farming, forestry, fishing industry, food industry).

» **All businesses are involved:**
All industries have interfaces to the use of natural resources, the direct and indirect (i.e. in the whole value chain) use of land, the dependencies on ecosystem services and other environmental impacts.

ACTIVE RATHER THAN REACTIVE APPROACH TO NEW CHALLENGES: BUSINESS BENEFITS

Measures for protecting biodiversity do not necessarily pay off in hard cash, at least not in the short term. Sometimes they mean additional costs and investments. But they are part of far-sighted and sustainable management and an expression of responsible business practices. This includes putting products and production processes on an environmentally compatible footing in good time, becoming fully informed of the risks in the supply chain and the timely advance preparation for complying with a changing legal framework. By being proactive senior management ensures long-term competitiveness, safeguards the availability of resources, commands legal certainty, engages in credible communication, and ensures higher motivation in the workforce as well as strengthens social acceptance.

Challanges
Pioneers wanted

On many levels work is under way to integrate biodiversity in sustainability management or environmental management systems, environmental impact assessments, in standards and decision-making processes. Even industries at the forefront are still in a search and learning process for developing feasible strategies and do not have access to a standard approach. Pioneering work is in demand:

WHAT ARE THE CHALLENGES?

» **New topic:** The integration of biodiversity in environmental and sustainability management is still in its infancy in many sectors and in the majority of companies. Frequently, there are still no established information channels and sources.

» **Metrics, standardisation, data access:** Biodiversity is complex and does not lend itself to easy measurement or management. Data are often not available or difficult to access. There are still few standardised practices and methods.

» **Complexity and gaps in knowledge:** More knowledge is needed to improve how priorities are set. There is still a great need for research on functional relationships, status, trends and qualitative and quantitative valuation methodologies of biodiversity and the consequences of its loss. The IPBES was founded in 2013 to improve the basis for policy decision-making.

» **Incentives:** Clear socio-political objectives and incentive systems help companies to act in a coordinated and targeted manner. These incentives do not always exist.

» **Complex supply chains:** Biodiversity is anchored at a local level. Often key threats to biodiversity are found at the front end of the supply chain, e.g. where raw materials are sourced, but are hard for companies to influence locally.

Fields of action and measures
On the doorstep and in the supply chain

Companies can develop many different solutions to optimise products and processes, on both the large and the small scale. Action is possible and necessary, from a holistic strategy and the big leap through to small, easily managed measures.

THE AMBITIOUS PATH: COMPREHENSIVE ANALYSIS AND INTEGRATION OF BIODIVERSITY INTO SUSTAINABILITY MANAGEMENT SYSTEMS

The ideal approach is to analyse the whole value chain and all locations in the context of the operational sustainability or environmental management system. Biodiversity can be integrated as an aspect and area of responsibility. All operative areas can be integrated: from top management, through to research & development and from sourcing to marketing. A holistic approach includes the following:

- Analysis of **important influencing factors** on biodiversity (and ecosystem services) along the whole value chain and taking full account of all corporate areas of action and functional areas
- Analysis of own **dependencies** on biodiversity and ecosystem services
- Defining **strategies and** drafting **guidelines**
- **Prioritising,** defining measureable and realistic **goals and measures**
- **Integrating suppliers** as well as customers and other partners.

The Living Planet Index (LPI), which measures trends in thousands of vertebrate species populations, shows a decline of 52 per cent between 1970 and 2010. That means vertebrate species populations globally are, on average, about half the size they were 40 years ago. (Source: WWF Living Planet Report 2014)

SMALL STEPS: FROM ADDING ECOLOGICAL VALUE TO THE COMPANY PREMISES TO CONSERVATION SPONSORING

Conservation begins at one's own front door. The company grounds can make a smaller or greater contribution to local and regional biodiversity. Also, there are countless ways to get involved socially and support projects to protect biodiversity.

ADVICE

Do good and talk about it:
Is biodiversity an issue that you can make good use of in corporate communications?

Seek partners:
Are there suitable cooperation opportunities with conservation organisations or scientific partners?

Financial support:
Check funding opportunities for individual activities!

Learn from others:
Learn from others: Take a look at the Leadership declaration of the 'Biodiversity in Good Company' Initiative and the company progress reports.

Getting in deeper: INFOPOOL
Information sources, case studies, networks

'Biodiversity in Good Company' Initiative e. V.
Business network
» Refer to, e.g. the information portal, case studies and member progress reports
http://www.business-and-biodiversity.de

Enterprise Biological Diversity 2020
A German platform for action and dialogue between business, government and nature conservation that offers
» further links ("Nützliche Links") and showcases best practices ("Aktionsplattform"):
http://www.biologischevielfalt.de/UBi_2020.html
Brief summary in English:
http://www.business-and-biodiversity.de/en/activities/unternehmen-biologische-vielfalt-2020/

European Business and Biodiversity Campaign
Campaign organised by the Global Nature Fund and partners
» See, e. g. Knowledge Pool and Knowledge Service
http://business-biodiversity.eu/

EU Business and Biodiversity Platform
Platform of the European Commission
http://ec.europa.eu/environment/biodiversity/business/index_en.html

CBD Global Partnership for Business and Biodiversity
Global network under the umbrella of the Convention on Biological Diversity (CBD)
http://www.cbd.int/business/

TEEB – The Economics of Ecosystems and Biodiversity
» See in particular the publication "Die Unternehmensperspektive – Auf neue Herausforderungen vorbereitet sein" (2013, only available in German; the title can be translated as "The business perspective – Ready to meet new challenges")
www.teebweb.org

WE SUPPORT YOU WITH INFORMATION MODULES FOCUSSING ON THE FOLLOWING ISSUES

To start the process we provide basic information on individual topics that are part of this series. These are gradually being made available for downloading at: **www.business-and-biodiversity.de/en** Topics being prepared include:

- Greening company premises
- Various aspects of responsibility in the supply chain: challenges at a glance, using renewable resources sustainably, extracting raw materials
- Corporate communications
- Opportunities for involving employees
- Cooperation with suppliers and customers
- Social responsibility, conservation finance and cooperation with NGOs, funding opportunities

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Pariser Platz 6 · 10117 Berlin
Phone: +49.(0)30.22 60 50 -10
Fax: +49.(0)30.22 60 50 -19
contact@business-and-biodiversity.de
www.business-and-biodiversity.de