Business & Biodiversity

A guide for Netherlands based enterprises operating internationally

Mathew Parr & Henk Simons

Amsterdam, 2007

National Committee of
The Netherlands

IUCN
The World Conservation Union

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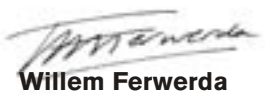
Foreword

Our world today faces a number of major global environmental challenges. Biodiversity loss is one of the most critical. Biodiversity, the variety and richness of all life on earth, is a prerequisite for ecosystems to function properly, and a continuing loss will undermine the capacity to provide us with ecosystem services, such as food, freshwater and climate regulation. The 2007 IUCN Red List of Threatened Species and the recent Millennium Ecosystem Assessment (MA) confirmed rapid biodiversity loss continues. The MA highlighted some of the main challenges that the global community must meet if we are to reduce the rate of biodiversity loss. One of the key messages is that collaboration is needed at all levels and from all sectors of society to move towards the sustainable use of the world's natural resources.

The impact that business can have on biodiversity is huge: as a user of vital ecosystem services but also as a contributor to ecosystem change and biodiversity loss. To illustrate the economic significance of biodiversity, the total global value of ecosystem services has been estimated at $33 trillion per annum. A further degradation of ecosystems will compromise for instance the supply of raw materials such as timber and fish stocks, with large implications for a nation's economic development.

It follows from this that business has an important role to play in reversing the trend of biodiversity loss. Government, business, civil society and others need to work together towards effective solutions. The MA highlights that businesses that pioneer new technologies or integrate business strategies in anticipation of ecosystem changes will gain competitive advantage over others. There is increasingly the recognition by companies of the business case for managing their impacts on biodiversity as part of a joined-up, integrated and holistic approach to managing risks to their companies operations, performance and reputation. It is encouraging that, worldwide, more and more companies are actively engaged in such efforts, and using natural resources more sustainably.

The guidelines and tools presented in this report should therefore be warmly welcomed. It is an important contribution to guide companies in their management of biodiversity, and outlines the various steps in this process. The report should stimulate the business sector to engage in conservation and sustainable use of biodiversity and natural resources and to continually improve performance. The Dutch business community is ready, in collaboration with government and civil society organizations, to further develop and implement such practical tools and stimulate their use.



Willem Ferwerda
Director IUCN National Committee of the Netherlands

Acknowledgments

This guide was prepared by Henk Simons and
Mathew Parr of The World Conservation Union,
National Committee of the Netherlands (IUCN NL).
Inputs to the individual sector notes were provided by:
Agribusiness: soy and palm oil – Henk Hartogh (IUCN NL)
Seafood: fisheries and aquaculture - Mathew Parr (IUCN NL)
Oil and gas – Steven de Bie (Royal Dutch Shell)
Forestry and paper industry – Carl Königel (IUCN NL)
Tourism – Kike Olsder (IUCN NL)
Financial sector – Henk Simons (IUCN NL)
The authors are grateful to the reviewers for their input
and assistance with this publication.

This project and guide was made possible by a contribution
from the Ministry of Agriculture, Nature and Food Quality.

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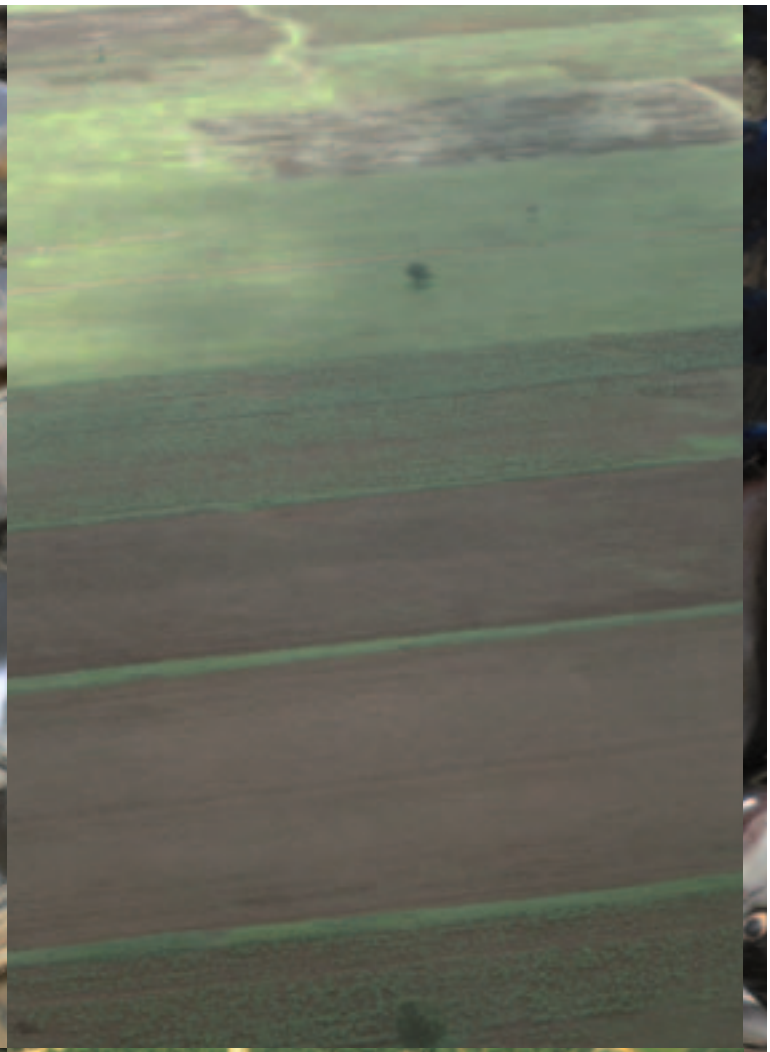


About this guide

Why this guide?
People everywhere rely on ecosystems and the services they provide. So does business. Biodiversity is essential for the functioning of ecosystems. It impacts the quality of human life and is an essential component to the sustainability of all human activity, including business. This guide is about Biodiversity – what it is and how it forms the bedrock of the wellbeing of our societies – and about the Business and Biodiversity nexus – how an understanding of biodiversity can help inform and direct the decisions to improve business operations. The overall aim of the book is to stimulate Dutch and EU companies to manage, report on and mitigate both their direct and indirect impacts on biodiversity overseas.

Who is this guide intended for?
This guide is primarily intended for business managers responsible for product quality, such as health, safety and environment, as well as those within Corporate Social Responsibility (CSR) departments. It is aimed at Dutch and European companies with operations, supply chains, and interests (partnerships/joint ventures/investment) overseas.

What are the origins of the guide?
IUCN NL was charged by the Dutch Ministry of Agriculture, Nature and Food Quality to investigate how the Dutch economy and her companies are affecting biodiversity-rich areas overseas, and to support the companies responsible for the greatest proportion of these effects to identify, report on and reduce them.

What will the guide tell you & how can it help you?
Our understanding and knowledge about the natural environment, the natural resources of the planet and nature conservation is continuously improving, culminating over the last twenty years into the concept of biodiversity. With this improved knowledge and understanding it is becoming increasingly clear that many activities, commercial and others, are far from sustainable (are able to continue indefinitely), and that a continuation of these activities will ultimately result in a collapse of certain ecosystems, the services they provide, and the economies they support. This will not only affect the well-being of people within and in close proximity to those ecosystems, but also the global economy and the well-being of societies built on that economy. As the role of governments in regulating the activities of the business world contract, more and more responsibility is placed on the shoulders of the private sector to deal with these issues within the overall framework of sustainable development. This guide, we hope, will help you better understand how you as a business person can deal with this widening of responsibilities.

The guide: (a) presents the key concepts involved with an understanding of biodiversity, (b) outlines the business case for biodiversity; (c) provides guidance for developing biodiversity corporate action; and (d) presents some of the tools, good practices and initiatives in key sectors that tackle biodiversity issues, illustrated by Dutch case studies.

How is the guide organized?
This guide is organized in two parts. A general part of two chapters will answer the questions:

- What are we talking about when we refer to 'biodiversity'?
- What key terms and concepts should businesses understand and gain some insight into it?
- How are humans and businesses affecting key biodiversity elements?
- What are our governments and the other large public institutions doing about biodiversity loss?
- How do businesses rely on the biodiversity asset base and how are they affecting it?
- What are the core generic components and tools of systems for managing biodiversity risks?

The second part consists of stand alone sector notes focusing on six key business sectors that either rely on the biodiversity asset base and the services it provides and/or contribute significantly to their erosion. The notes focus on the sector specific interactions (with biodiversity), how the sector is integrating biodiversity concerns into operations and practices, and which actions are being taken to conserve biodiversity. The sectors have been chosen on the basis that the relationship between companies in those sectors and biodiversity is most likely to lead to material risks, and include the sectors within which IUCN NL has gained experience and knowledge over the last few years.

The six key sectors are:

- Agribusiness: soy and palm oil
- Seafood: fisheries and aquaculture
- Forestry and paper industry
- Oil and gas
- Tourism
- Financial sector

The Business Biodiversity nexus is a challenging place to work, but an understanding of it has never been more urgently needed – both for those concerned with the business community as well as those concerned with improving the management and conservation of biodiversity.

Part 1

Business & Biodiversity

Chapter 1
The Business Case for Biodiversity

This chapter explains the term biodiversity, its values and functions. It then presents findings on current status and trends, the main threats to biodiversity, and the impact of the Dutch economy on global biodiversity (footprint). Subsequently the business case for biodiversity is clarified and the chapter concludes with a presentation of biodiversity policies at the international, European and national (Dutch) level, and some key responses to biodiversity loss.

1.1 Biodiversity and sustainability

Sustainable development and sustainability are concepts that have gained acceptance and importance over the last few decades, also in the business community. Three pillars are usually distinguished: social, environmental and economic, also referred to in business as Triple P: people, planet, profit. Biological diversity, in short biodiversity, reflects the health of the planet. As such it lies at the core of sustainability, a compelling reason to sort out the relationship of biodiversity with the corporate sector.

1.2 What is Biodiversity?

Biodiversity can simply be described as "the variety of life on Earth". In a more complex way, the Convention on Biological Diversity (CBD) defines biodiversity as "the variability among living organisms (plants, animals, micro-organisms) from all sources, including terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part". Biodiversity is commonly divided into three levels:

- ***Genetic Diversity:*** The variation of genes both within and between populations of specific plant and animal species.
- ***Species Diversity:*** The variety of different plant and animal species within a given area.
- ***Ecosystem or habitat Diversity:*** The range of habitats (forests, wetlands, savannah, tundra, grassland, etc), species populations and ecological processes that occur in a region.

Biodiversity is the underpinning feature of both unmanaged ecosystems such as wildlands and nature reserves, and managed systems – plantations, farms, aquaculture sites, rangelands. At the species level it includes both wild and domestic plants and animals. The focus of the guide is on the former, natural biodiversity.

Ecosystem services

Biodiversity is essential for the functioning of ecosystems and the production of ecosystem services – the benefits that people obtain from ecosystems.

Four categories of ecosystem services can be distinguished:

1 ***Provisioning services:*** harvestable goods such as food, water; timber and fibre;
2 ***Regulating services:*** such as the regulation of climate, floods, disease, wastes, and water quality;
3 ***Cultural services:*** such as recreation, aesthetic enjoyment, and spiritual fulfilment;
4 ***Supporting services:*** such as soil formation, nutrient cycling, water cycling and photosynthesis.

By clarifying the linkages between biodiversity, the functioning of ecosystems, the provisioning of ecosystem services and human wellbeing, the values of biodiversity and ecosystems for society, business and the global economy become more obvious. The following types of values can be distinguished:

- ***Economic values:*** (i) direct income, for example by selling products; (ii) input to other activities by providing raw materials; (iii) indirect value by providing services that would require large investments – if not present – such as coastal protection by dunes or mangroves
- ***Social values:*** employment, safety, health, quality of life, social security, appreciation of nature
- ***Ecological values:*** or future (non-use) values, saving biodiversity and its so far unrecognized potential for future use.

The appreciation of those values differs for different people and groups of society. For the business sector the economic values are directly relevant to their operations. Besides those values for people – utilitarian approach –, biodiversity has also a value in itself (intrinsic value) irrespective of its contribution to human wellbeing.

The total global (economic) value of ecosystem services has been estimated at $33 trillion per annum. Using the concept of ecosystem services means that biodiversity is not just about nature conservation and threatened plant- and animal species.

1.3 Status, trends and threats

The Millennium Ecosystem Assessment (MA) and the second Global Biodiversity Outlook (2006) provide the most recent findings on the status and trends in biodiversity, ecosystems and ecosystem services. The MA concludes that over the past 50 years, humans have changed ecosystems more rapidly and extensively than in any comparable period in human history, largely to meet fast-growing demands for food, fibre and fuel. Global economic activities increased nearly sevenfold between 1950 and 2000. Global population doubled in the last 40 years, reaching 6 billion in 2000, and is projected to reach approximately 9 billion by 2050. The changes we have made to ecosystems have contributed to substantial gains in human well-being and economic development. However, these gains have come at growing costs in the form of degradation of many ecosystem services, increased risk of abrupt and harmful changes in ecosystems, and harm to some groups of people.

The main trends on biodiversity and ecosystem services are presented in Annex 1, and findings on biodiversity are summarized in Box 1.

Main threats to biodiversity

The current losses of biodiversity worldwide have both indirect and direct human causes and drivers. The first category includes demographic, economic, socio-political, cultural and religious, and scientific and technological factors. In particular, growing consumption of ecosystem services – particularly food and fibre – which results from growing populations and growing per capita consumption, leads to increased pressure on ecosystems and biodiversity.

Box 1
Summary of main findings on biodiversity of the Millennium Ecosystem Assessment

1 Biodiversity is being lost at rates unprecedented in human history.
2 Losses of biodiversity and decline of ecosystems services constitute a concern for human wellbeing, especially for the wellbeing of the poorest.
3 The costs of biodiversity loss borne by society are rarely assessed, but evidence suggests that they are often greater than the benefits gained through ecosystem changes.
4 The most important direct drivers of biodiversity loss and ecosystem services are habitat change (such as land use changes, physical modification of rivers, and loss of coral reefs), climate change, invasive alien species, overexploitation, and pollution. These drivers are either steady, show no evidence of declining over time or are increasing in intensity.
5 Many successful response options have been used, but further progress in addressing biodiversity loss will require additional actions to address the main drivers of biodiversity loss.
6 An unprecedented effort would be needed to achieve by 2010 a significant reduction in the rate of biodiversity loss at all levels.

The most important direct threats to biodiversity are:

- habitat change – such as land use change as a result of housing, damming of rivers, deforestation, loss of coral reefs
- climate change
- invasive alien species
- overexploitation of species – such as unsustainable logging, overfishing
- pollution.

For most of these threats and for most ecosystems where they have been important, the impact of the threat remains constant or is growing. Each of these threats will have impacts on biodiversity in the twenty-first century.

Challenges

As demands for biodiversity and ecosystem services grow and the ability of ecosystems to provide these demands is declining, difficult challenges must be addressed, including:

- How do we meet the growing demand for food (projected to increase by 70-80% in 50 years) without further harming the environment or the integrity of the food supply chain?
- Given the unevenly distributed supply of fresh water, how do we meet agricultural and consumptive needs around the world?
- How do we balance conservation of biodiversity with opportunities for economic development associated with alteration or conversion of habitats?
- How do we balance increasing demand for seafood and expanding opportunities for aquaculture, while promoting the health of fresh and coastal waters and restoring wild fisheries?

1.4 Impacts of Dutch economy on biodiversity

In view of its relative small size, the Netherlands has a disproportionately large impact on global ecosystems and biodiversity. The Netherlands has a very open economy. Many commodities are imported, processed and partly exported again. Several large Netherlands-based multinational companies and trading houses are engaged in world-wide operations including energy and mining, chemicals, timber, food products and consumer goods. Also smaller companies take part in international trading operations.

During the last decades, substantive measures have been taken to reduce unfavourable environmental effects within the Netherlands itself. However, company managers are often not fully aware of the impact of their activities on the environment in countries in Southeast Asia, Africa and South America, which still have a rich biodiversity. Production in these countries for exports has resulted in a considerable loss of biodiversity in producing countries. Recent research estimates the current loss of biodiversity-rich habitats on land, due to the Dutch economy, to be over 200.000 square km and 5.000 square km in the oceans.

The ecological footprint – the corresponding area of productive land and aquatic ecosystems required to produce the resources used, and to assimilate the wastes produced – of the Netherlands by 2000 is estimated at 6 times the size of the Netherlands. In 1960 only two 'Netherlands' were required to meet the resource requirements of the country. The main components of the footprint are energy – by far the largest-, crops, timber, fisheries and pasture.

1.5 The business case for biodiversity

How businesses interact with biodiversity

People everywhere rely on ecosystems and the services they provide. So does business. The value of biodiversity to many companies does not relate to individual species, but the provision of ecosystem services that are sustained through biodiversity. Businesses interact with biodiversity and ecosystem services in two important ways: they use services and they contribute to changes in ecosystems and biodiversity. Main interactions include:

- Productive (logging, fishing) and non-productive (tourism) exploitation where the economics are the main driver, with sustainability of biodiversity as a key condition
- Impacts originating from the requirements of operations: land reclamation, energy, changes in hydrology or access, always an impact which has to be reduced.
- Routine consequences of operations: waste emissions and non-routine consequences, damage spills, pollution, where the target is zero impact.

For some industries and sectors the dependency and interactions with biodiversity are more obvious than for others. The agricultural sector relies directly on healthy ecosystems for provision of food and raw materials. Key biodiversity-related functions or conditions that can increase the long-term viability of common crop species include nutrient rich soil, water flows, pollination, and genetic diversity. Fisheries industries depend on diverse and abundant fish stocks, forestry depends on forests and trees. The health sector depends on genetic resources for the development of medicines. (Eco)tourism directly depends on nature and wildlife. Other sectors depend indirectly on biodiversity, for instance through the supply chain. For instance, the food industry and retailers depend on a secured supply of raw materials and agricultural products. We can say that nearly all business operations somehow rely on healthy and stable ecosystems.

Impacts of businesses on biodiversity can be either negative or positive. Main direct negative impacts of business operations or developments include (between brackets examples of sectors causing the impacts):

- land conversion and land use change (e.g. building sector, agriculture, forestry, oil and gas, mining);
- over-exploitation (e.g. fisheries, forestry, agriculture);
- contribution to climate change through greenhouse emissions (e.g. energy sector, tourism (see Box 2))
- pollution including soil, water and air contamination (e.g. agriculture, mining, oil and gas);
- introduction of invasive species (e.g. agriculture, aquaculture, transport, tourism).

Again, companies can either directly cause these impacts or indirectly through the supply chain.

Box 2
Tourism, climate change and biodiversity

One of the most substantial and increasing impacts of tourism on biodiversity is indirectly through contribution to climate change. Various studies indicate that the largest environmental impacts from tourism are accounted for by transport. Air transport shows the highest values for emissions into the atmosphere per km. Particularly the total CO_2 -emissions through long distance travel by plane are high. For instance, air transport dominates with 72% the EU outbound and inbound tourism transport impact. The total amount of CO_2-emmissions in 2005 for EU15 tourism (in- and outbound) are estimated at 328 tons per year, or 8% of all the EU15 emissions. Through these contributions to climate change tourism is responsible for loss of biodiversity and extinction of species.

Secondary impacts do not result directly from the development itself but are rather triggered by the presence of the development. For example, construction of a pipeline corridor for oil and gas or development of logging roads may encourage landless farmers to invade an area that has been uninhabited before those developments. Whereas primary impacts can generally be mitigated with operational practices, secondary impacts are (at least partially) not under the control of the company that started the development. Also, in many cases they exceed primary impacts in terms of scale and intensity. Moreover, negative impacts from several developments, taking place at the same time or after each other in a region, may cumulate to effects that exceed the dimension of those of individual projects.

Enterprises can also have a positive impact on biodiversity, for instance through: a) sourcing supplies from sustainable sources; b) supporting biodiversity conservation and restoration projects; c) management of land in a way that enhances biodiversity; d) investing in innovation and research that enhances biodiversity.

Biodiversity risks for companies
The relationship between companies/sectors and biodiversity is exposing these sectors to 'biodiversity risks'. A recent study by F&C Asset Management considers the likelihood, significance and source of biodiversity risks to a range of business sectors. The study identifies seven 'headline' business risks that arise through the relationship between companies and biodiversity:

1 ***Reputation*** *is an umbrella 'risk' which pervades all other issues.*
Example: consumers in the Netherlands are getting more aware of the need for sustainable timber production. Also large retailers, including Kwantum, Gamma and Praxis, are shifting towards selling only sustainable produced goods, indirectly spreading the awareness for sustainable production. Companies who ignore the importance of biodiversity will suffer more damage to their reputation when the consequences of their unsustainable production methods are covered in the media.

2 ***Access to land***
Example: Access to new sites is affected by a company's track record on protecting/restoring biodiversity and water resources. Those are particularly important factors for forestry and agriculture sectors, which need large tracts of land.

3 ***Access to capital***
Example: many banks, including for instance Fortis, Rabobank, ING, have established forest policies that prevent the banks from engaging in activities related to illegal or unsustainable logging from primary or high conservation value forests. Conditions may also include that a forestry management plan, a biodiversity action plan, and a soil and water management plan need to be in place.

4 ***Access to markets***
Example: Inability to meet specifications from substantial buyers – such as government departments and agencies – for sustainably-sourced raw materials like timber, restricts access to a major market.

5 ***Security of supply***
Examples: securing supply of target fish stocks is one of the driving factors for the business case for sustainable fisheries. Long-term survival of the forestry sector directly depends on a secure supply of valuable timber species and raw material for the pulp and paper industry.

6 ***Relations with regulators***
Example: Concerns about a company's track record on biodiversity management, or lack of confidence in the quality of its biodiversity survey and management plans, leads to permit delays or fines.

7 ***Liabilities***
Example: Unforeseen impacts of activities on biodiversity lead to financial liability even though a company's regulatory licenses have not been exceeded.

Table 1 Level of biodiversity risk by sector (source F&C Asset Management 2004)
Within each zone, sectors are presented in alphabetical order; the ordering does not reflect different levels of risk.

HIGH-RISK SECTOR MOST COMPANIES EXPOSED TO RISKS. RISKS LIKELY TO BE SIGNIFICANT.	MEDIUM-RISK SECTOR SOME COMPANIES EXPOSED TO. RISKS MAY BE SIGNIFICANT.	LOWER-RISK SECTOR RISK VARIABLE AND SIGNIFICANCE UNKNOWN.
Construction & Building Materials	Beverages	Aerospace & Defence
Electricity	Chemicals	Automobiles & Parts
Food & Drug Retailers	Financial Services	Diversified Industrials
Food Producers & Processors	General Retailers	Electronic & Electrical Equipment
Forestry & Paper	Household Goods & Textiles	Engineering & Machinery Health
Leisure & Hotels	Personal Care & Household	Information Technology Hardware
Mining	Products	Media & Entertainment
Oil & Gas	Pharmaceuticals & Biotech	Software & Computer Services
Utilities	Support Services	Steel & Other Metals
	Transport	Telecom Services

Based on these headline indicators the study identified and ranked the business sectors in which the relationship between companies and biodiversity is most likely to lead to material risks (Table 1). Sectors exposed to significant risks include construction & building, forestry & paper, oil and gas, mining, tourism and leisure and the food and agribusiness.

Challenges for business

The challenges that society is facing due to the ever growing demand for ecosystem services will also affect business operations, in the following ways:

1. If current loss of biodiversity continues, ecosystem services that are freely or cheaply available today will cease to be available or become costly in the near future. Previously internalized by primary industries, the costs of exploiting ecosystem services will in future be passed downstream to secondary and tertiary industries, transforming the operating environment of all businesses.
2. Loss of ecosystem services will also affect the conditions within which businesses operate, influencing customer preferences, shareholder expectations, regulatory regimes, governmental policies, employee wellbeing, and the availability of finance and insurance.
3. New business opportunities will emerge as demand grows for more efficient and sustainable ways to use ecosystem services.

The ways in which companies can respond to these challenges in their policies and operations are elaborated in chapter 2.

1.6 International and national policies dealing with biodiversity

A number of international legal frameworks and policies have been developed to respond to biodiversity loss. Also, many countries have developed national biodiversity strategies and action plans. All of those have implications for business operations.

Convention on Biological Diversity

The main international policy framework on biodiversity is the United Nations Convention on Biological Diversity (CBD), which was signed in 1992 at the Rio Earth Summit. Its objectives are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits of genetic resources. At the World Summit on Sustainable Development, 2002 in Johannesburg, the world's states made a commitment to significantly reduce the rate of biodiversity loss by 2010. This is a key challenge and target of the CBD's strategy and programme of work.

It is recognized that the business sector needs to be more actively engaged in the implementation of the CBD, also as a means to reach the 2010 target. A recent CBD decision calls for a stronger engagement of the business sector, and urges business to incorporate the CBD objectives and principles into their policies and practices. A current initiative, called 'Business and the 2010 biodiversity challenge', aims to strengthen business engagement through organization of meetings, development of awareness materials, guidelines and tools. (www.cbd.int)

European Union policies

The EU has been legislating on biodiversity since the 1970s, and it is committed to implementing the Convention on Biological Diversity. The EU has set itself the objective of halting the loss of biodiversity within its own territory by 2010. Nature and biodiversity are one of the priorities of the EU's sixth environment action programme (2002-12). For the conservation of biodiversity the EU is developing a coherent system of protected areas, the EU NATURA 2000 ecological network. EU legislation on nature conservation is laid out in the Habitats directive and the Birds directive. On the sustainable use of components of biodi-

versity, the EU promotes: the internalisation of the values of biodiversity in cost/benefit analysis; eco-labelling schemes based on life cycle analysis for products whose production, distribution, use or disposal could affect biodiversity; the integration of biodiversity concerns into liability mechanisms. The EU policy also focuses on shifting incentives to encourage positive effects on the conservation and sustainable use of biological diversity, rather than negative ones.

Dutch Biodiversity policies

The International Policy Program Biodiversity of the Netherlands (BBI) has formulated as one of its three priority goals: 'to promote the sustainable use of biodiversity in economic sectors such as agriculture, forestry, fisheries, tourism, trade and development cooperation'. One way to achieve this goal is to reduce the adverse impacts of Dutch trade and consumption on international biodiversity, or in other words to reduce the ecological footprint. Policy instruments and activities include the development of sustainability principles and criteria in agribusiness, the financial sector, dredging, mining and oil exploration; promotion of sustainable products and processes; and development of codes of conducts and establishment of public-private partnerships. The Future Environment Agenda (2006 – 2012) also emphasizes the important role of the private sector to make commodity chains – from production to consumption – more sustainable.

1.7 Protection of ecosystems and species

In addition to the above-mentioned policies, a number of key instruments are put in place for conserving biodiversity that also affect business activities. Protected areas are an important part of programs to conserve biodiversity. However, conservation measures are also needed in areas of high biodiversity outside those protected areas.

Protected areas

A number of international agreements, including the CBD, require the protection of natural ecosystems and habitats. The CBD requires all signing parties to establish a system of protected areas, with the target that by 2010 at least 10% of each of the world's terrestrial ecosystems (forests, mountains, drylands, wetlands) are effectively conserved, and by 2012 10% of world's seas and oceans. Two other global treaties protect listed areas. The World Heritage Convention (UNESCO) protects natural and cultural sites of global importance, and the Ramsar Convention provides for the protection, conservation and wise use of listed wetlands of international importance.

To consolidate and systematize the areas that should be protected for the conservation of biodiversity, IUCN, the World Conservation Union, has developed a six category system (I-VI) for protected areas, which provides guidance for how the private sector should operate in these areas. In 2000 the IUCN World Conservation Congress adopted a resolution calling on states to ban investments in extractive projects in Category I-IV protected areas.

The World Database on Protected Areas (WDPA) provides the most comprehensive dataset on protected areas worldwide. (www.unep-wcmc.org/wdpa)

High Conservation Value Areas

Because most of the earth's important biodiversity remains outside protected areas, a number of governmental and non-governmental organizations have identified areas with a high priority for biodiversity conservation. At the national level, such areas are identified as part of National Biodiversity Strategies and Action Plans prepared under the CBD. In addition, several international organizations have identified particular areas of high biodiversity, including:

- High Conservation Value Areas (www.hcvnetwork.org)
- Conservation International's Biodiversity Hotspots and Wilderness areas (www.biodiversityhotspots.org)
- The World Wildlife Fund's Global 200 Ecoregions (www.worldwildlife.org/ecoregions/)
- IUCN's Centres of Plant Diversity
- The Nature Conservancy's Last Great Places (www.nature.org)
- Birdlife International's Important Bird Areas (www.birdlife.org)

The concept of High Conservation Value Areas is currently gaining more acceptance and acknowledgment outside the conservation community, for instance in the Round Table processes on responsible oil palm and soy farming, in the forestry sector, in the oil and gas sector and in the financial sector. However, there is a need for further elaboration and streamlining, and identification and delineation of such areas in consultation with local stakeholders.

Species protection – the Red List of Threatened Species and CITES

The IUCN Species Survival Commission produces The Red List of Threatened Species, the most comprehensive and authoritative global survey of plants and animals at risk. (www.iucnredlist.org)
The Bonn Convention on the Conservation of Migratory Species of Wild Animals requires conservation of habitat and restrictions on the exploitation of any listed endangered migratory species.
The Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) prohibits international commercial trade in all species listed as endangered and requires the strict regulation of such trade for species designated as threatened. Other global and regional conventions ban or restrict the commercial exploitation of whales, migratory birds, polar bears, sea turtles and fur seals, among others. (www.cites.org)

Chapter 2
What can companies do about biodiversity?

This chapter identifies a number of steps for action through which companies can assess the business case for biodiversity, identify and build on existing practices which address biodiversity, and integrate biodiversity throughout their business model. These are followed by an example of a methodological framework for assessing a company status regards biodiversity and improving how to manage biodiversity risks. Examples are given throughout on how this is being done in a variety of sectors.

2.1 Introduction

There is already widespread recognition within many companies that economic or financial success is inextricably linked to environmental and social performance. Though not yet part of mainstream thinking, all companies, to some extent, are paying attention to what is often referred to as 'corporate social responsibility', or CSR. In so doing, companies are striving to address the three dimensions of sustainability – environmental, economic and social – also known as the triple bottom line. Many companies, such as Shell and ING Bank, have adopted a slogan – people, planet, profits – for promoting this approach. Biodiversity strategies and addressing risks associated with biodiversity are not viewed as something in addition to CSR and sustainability, but are integral and crucial parts of them.

An increasing number of initiatives exist to help and support companies to understand the various aspects of dealing with biodiversity, including resource centres, initiatives and development of tools dealing with the issues outlined above. Sector specific tools and initiatives, including various certification and labelling schemes, are presented in the sector notes. An overview of more general international and Dutch initiatives is presented in Annex 2.

2.2 Key steps for action on biodiversity

Companies have in recent years begun to approach biodiversity issues in similar ways, going through similar processes, utilising similar tools and practices, and integrating biodiversity considerations at similar points in their business models. Fig 1 is a schematic of what the evolution of a company's approach to biodiversity might look like. Companies today are at differing points on this evolutionary scale. Some have been through all stages and are already evaluating and improving on their existing model. Others have carried out particular activities such as identifying certain risks and trying to integrate biodiversity into existing tools. Others are still yet to acknowledge the importance of biodiversity.

Step 1 The Business Case

If biodiversity is to play a role in the core decision making process of a particular business, clear links and benefits with financial return must be clarified – a 'business case'. However, these may not seem immediately obvious, and many companies find this to be challenging. Companies may initially be pressured into addressing biodiversity by the public or conservation community, realizing that damage to reputation is affecting the economic value of the company. Other benefits may be more directly economic, such as increased land value because of proper environmental stewardship.

An internal review of existing biodiversity activities and examination of external trends related to sustainability can often illustrate areas in which there are benefits to the company from biodiversity activities.

Section 1.5 outlined how the relationship between particular sectors and biodiversity was leading to certain 'biodiversity risks'. Certain companies within specific sectors were identified as being exposed to High Risk. Companies within these sectors should more easily be able to identify the business case, as most of these companies are exposed to actual material biodiversity risks, and these risks are deemed significant.

It can also be argued that the role of companies in the modern 'global' business environment is changing as the influence and role of business within society increases. Certain companies have begun to widen their goals beyond those of profit making alone to include broader 'social' goals. Given this increased responsibility, addressing issues of environmental management and social equity is seen as 'the right thing to do'. Box 3 outlines how companies can contribute to biodiversity conservation beyond adapting their internal operations.

Box 3
1% Earth Profits Fund (EPF)

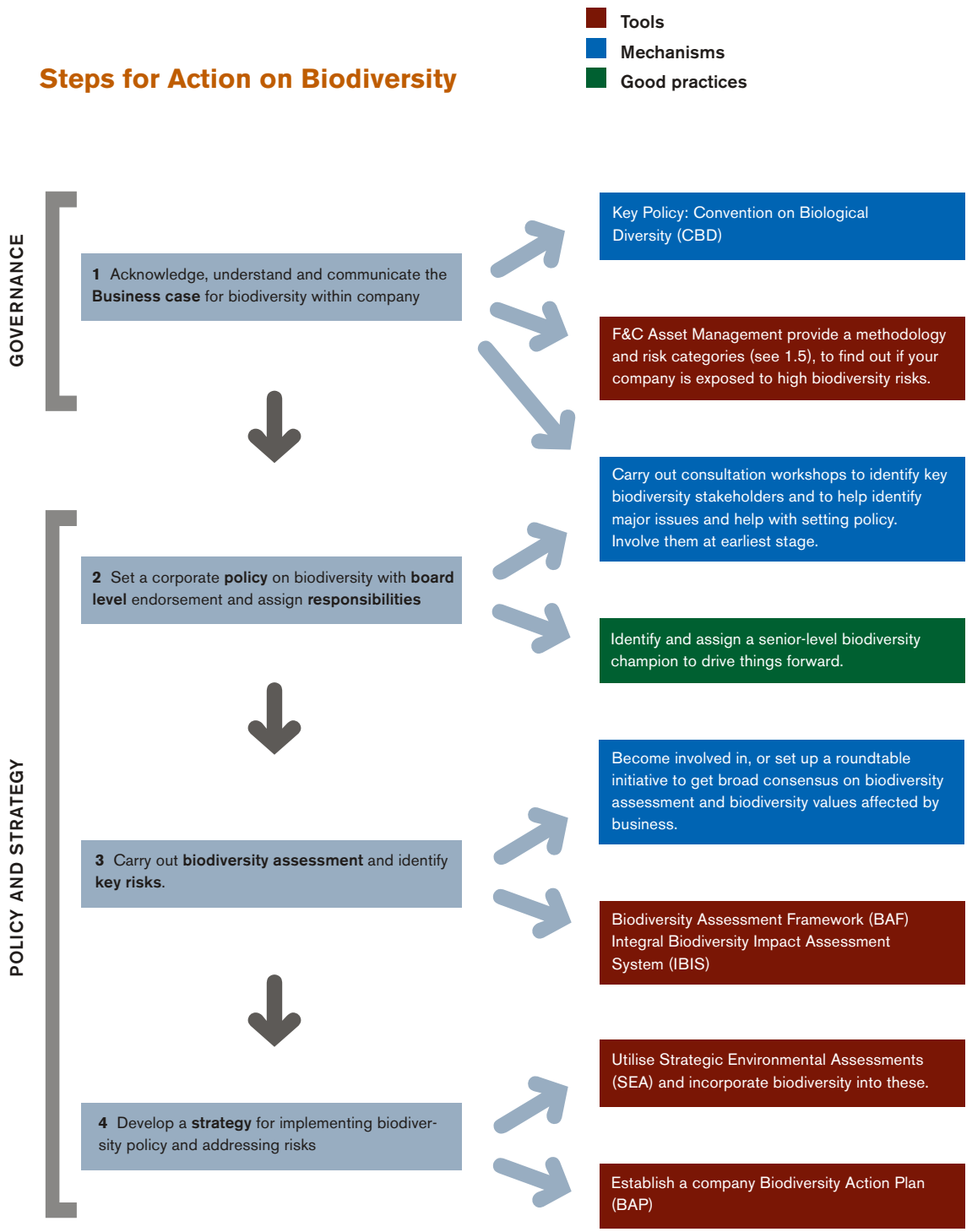
As 51 of the 100 largest economies in the world are corporations (the other 49 are nation-states), the business community represents the largest under-exploited revenue source for conservation. Rather than accepting small sums of money from private sector for conservation work that are often labelled as greenwashing, a pooled fund within which businesses can dedicate 1% of their profits would represent an enormous step forward in the urgent need to provide financing for conservation. As profits of the "Global 500" companies (top 500 revenue generating companies worldwide) were reported at almost $1 trillion in 2004, 1% of this would have amounted to $10 billion. (www.iucn.org/themes/ceesp/seaprise.htm#profit)

Step 2. Policy and responsibilities
An explicit policy outlining the company's commitment to biodiversity is often the first public statement and demonstration of recognition and acknowledgement on biodiversity, and helps those stakeholders concerned with such issues to understand the company's objectives more clearly. It also helps to ensure understanding and support throughout a company. Achieving Board level endorsement of such a policy will highlight the importance of biodiversity, not only for the image of the company, but also for its core business objectives and management systems. Box 4 outlines a Biodiversity Standard as developed by Shell.

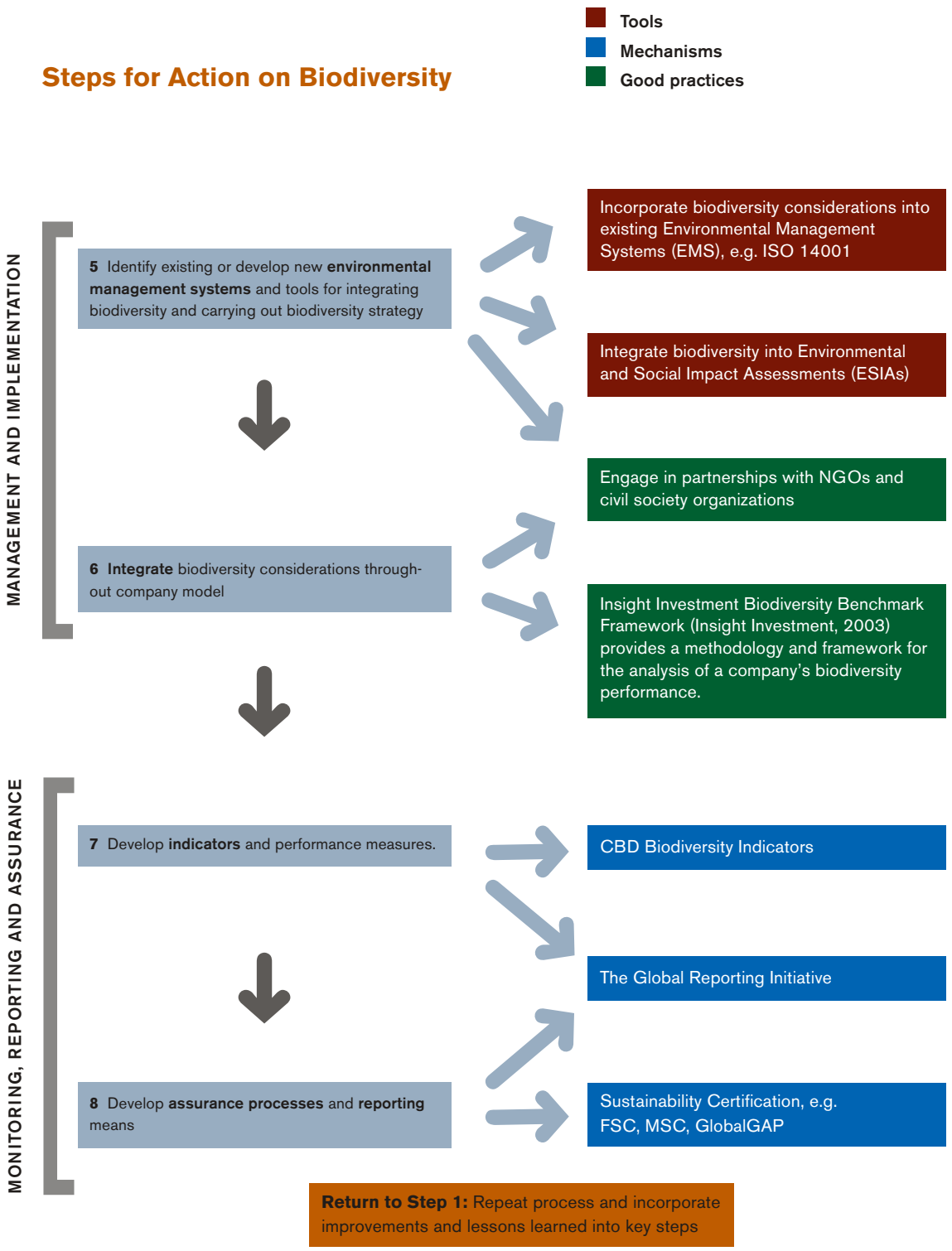
Box 4
Shell's Group Biodiversity Standard

This standard defines Shell's approach to biodiversity. It highlights working with others to maintain ecosystems, respecting the concept of protected areas, and seeking partnerships that enable Shell to make a positive contribution towards biodiversity conservation. It also emphasizes Shell's commitment to carrying out environmental assessments prior to new activities and taking special care in the management of activities in internationally recognized biodiversity hotspots. It is implemented through a strategy and action plan for all operations. Shell has also committed not to explore or drill for oil and gas in natural World Heritage Sites and pledged to continue working with IUCN and other organizations on biodiversity-related issues. (www.shell.com)

Figure 1 Generic evolution of company approach to biodiversity. *The parentheses at the left show the relationship of the 8 steps with the four elements of the Biodiversity Benchmark (Box 8)*



Steps for Action on Biodiversity



Assessing biodiversity and its relationship with a company requires sufficient human and financial resources. Assigning specific responsibility for this is vital to the success of addressing biodiversity issues within a company. One effective way to kick-start the process is to identify and assign a senior-level biodiversity champion to drive things forward.

Step 3 Biodiversity Assessment and Risk Identification

Setting out policy commitments to biodiversity, achieving Board-level endorsement, and assigning sufficient human resources to biodiversity issues should all help a company assess its understanding of biodiversity and how it might develop activities to address biodiversity issues. This is an iterative process which can be revisited at later stages of the company's engagement with biodiversity, helping to shape the basis of specific action plans. The objective of the assessment should be to decide which biodiversity issues warrant further attention, and to provide the information and evidence to encourage others within the company to buy into both the business case for biodiversity and the process.

Four key questions can help structure a biodiversity assessment and help a company identify key risks:

1 *What is the external biodiversity policy framework?*
The main starting point here is the Convention on Biological Diversity (as outlined in 1.6) and the National Biodiversity Strategies and Action Plans linked to the CBD of the countries in which the company operates. This activity will also bring those involved in such activities up to speed on the terminology relating biodiversity work, which sometimes creates problems in communication.

2 *What issues are particularly relevant to the company?*
This will require an assessment of companies operations and activities, including such details as area, location and nature of land holdings. Key considerations are the company's direct and indirect impacts on biodiversity, through its operations, supply chain, and use of products and services. See 'Biodiversity Assessment Framework' outlined in Box 5 as an example of an existing analytical tool that could help with this process.

3 *What policies, practices and procedures does the company already have in place which relate to identified biodiversity issues?*
It is likely a company already has some policies, activities or procedures in place that relate to biodiversity. Biodiversity may already be incorporated into existing systems and tools on environmental management (see next section). The assessment will also bring out an understanding of the level of awareness of biodiversity within the company.

4 *What can a company do to build on these existing activities to benefit biodiversity and the business?*
Identifying the key biodiversity risks faced by the company will form an initial part of the business case and help establish support throughout the company. A deeper understanding of these risks will help managers understand the scale and scope of the assessment needed to address these risks.

Box 5
VROM Biodiversity Assessment Framework (BAF)

The "Beoordelingskader Biodiversiteit" or Biodiversity Assessment Framework (BAF), developed by the Netherlands Ministry of Housing, Spatial Planning and the Environment (VROM), provides a basis for an all-encompassing analysis of potential biodiversity impacts of any imaginable human activity. The framework uses the ecosystem approach as a conceptual "umbrella". The BAF describes eleven steps to assess and evaluate the impact on biodiversity of human activities. The ecosystem approach, ecosystem services and involvement of stakeholders are key concepts in this process.

Step 4 Strategy

It is advisable for companies to prepare a Biodiversity Strategy. This strategy will set out and define how the process to address the policy and the issues raised in the biodiversity assessment moves forward. The strategy can set out the company's goals (informed by an understanding of the risks and assessment), acceptable targets and mechanisms for action, and identify the potential role of stakeholder groups. This strategy would aim at mainstreaming biodiversity into company activities, recognizing that the biodiversity strategy is a subset of the company's wider social responsibilities or sustainability agenda. It could provide a framework for strengthening existing activities and procedures, rather than initiating the development of new stand-alone programmes. Finally, the strategy should engage key stakeholders, those who can both impact upon the company and who are affected by company activities, thus providing an opportunity for building strategic partnerships with appropriate organizations and initiatives.
Box 6 shows how this is being done in the oil palm sector.

Box 6
Round Table on Sustainable Palm Oil (RSPO)

RSPO is an association created by organizations carrying out their activities in and around the entire supply chain for palm oil, to promote the growth and use of sustainable palm oil through co-operation within the supply chain and open dialogue with its stakeholders. It links to a number of steps of the framework, including biodiversity assessment, integrating biodiversity into palm oil production, and developing of indicators and performance measures.
RSPO aims to bring together members of the palm oil community to discuss and to cooperate towards this common goal. RSPO is undertaking the following principal tasks towards the fulfillment of its objectives:

- to research and develop definitions and criteria for the sustainable production and use of palm oil;
- to undertake practical projects designed to facilitate implementation of sustainable best practices;
- to develop solutions to practical problems related to the adoption and verification of best practices for plantation establishment and management, procurement, trade and logistics;
- to acquire financial resources from private and public funds to finance projects under the auspices of RSPO; and
- to communicate RSPO's work to all stakeholders and to a broader public.

In 2005 Principles and Criteria for Responsible Palm Oil Production were developed and agreed upon. The following criteria have the most direct linkage to biodiversity:

- #5.2: The status of rare, threatened or endangered species and high conservation value habitats, if any, that exist in the plantation or that could be affected by plantation or mill management, shall be identified and their conservation taken into account in management plans and operations.
- #7.3: New plantings (from November 2005, the date of adoption of these criteria by the

RSPO membership), will not replace primary forest or any area containing one or more High Conservation Values.
Other criteria, related for instance to waste management, energy and water use, pollution and fires, will also have positive impacts on biodiversity.
During a two year period, the principles and criteria are being field tested. Member producers will be looking for ways of improving the sustainability of their palm oil production. To date (end 2007), 198 organizations are member of RSPO, including oil palm growers, palm oil processors and traders, consumer goods manufacturers, retailers, banks and NGOs. Dutch members include Unilever, Essent, Cargill, Rabobank, Ahold and Both Ends. (www.rspo.org)

Biodiversity Action Plan
So as to ensure its full integration into management decision process, and achieve the best biodiversity performance, a company Biodiversity Action Plan (BAP) requires a co-coordinated approach. A number of broad elements have been identified to ensure successful implementation. These elements are starting points and will need to be tailored to individual circumstances.
Key elements of a company BAP include:
- Conserve biodiversity,
- Use biological resources sustainably,
- Share benefits equitably,
- Strengthen management systems,
- Monitor and evaluate,
- Report, and
- Identify new opportunities.

Step 5 Identifying tools and integrating biodiversity

Experience has shown that a company does not necessarily need to adopt an entirely new suite of systems or practices in order to effectively integrate biodiversity considerations into its decision-making and activities, Biodiversity ideas and considerations are more likely to be adopted and used systematically if they can be integrated into a company's ongoing management systems and operations.

Strategic Environmental Assessment (SEA)
A company-wide Biodiversity Strategy can help focus manager's attention on key biodiversity issues. However, biodiversity can also be integrated into existing strategies and newly developing strategies. While ESIA focuses on a particular project once it has been identified, (for example the building of a road), the Strategic Environmental Assessment was created to assess options in a sector before a project is identified, in order to subject these more important, higher order, or strategic decisions to environmental and social scrutiny. SEA is thus defined as the environmental and social assessment of plans, programmes and policies.

The main elements of the internationally accepted definition of SEA are:

1 SEA is a process: proactive, ex ante, formal and systematic. It is flexible and tailored to the task. All SEAs lead to a document – though not a 'one-off ' formality.

2 SEA focuses on three main classes of work:
a) Policies: legislation and other rules governing actions;
b) Plans and strategies, including regional plans, watershed plans, and sectoral plans (e.g. new or revised national water, mining or hydrocarbon codes, a new poverty reduction strategy, annual budgets); and
c) Programmes: or sets of coordinated projects, rather than specific individual projects themselves, partly because specific projects are identified at the conclusion of the SEA.

3 SEA is scheduled very early, 'upstream', as soon as it is decided to draft a policy, plan or programme, and well before individual projects have been identified. SEA begins as soon as work begins in a sector.

4 SEA is designed to identify, predict, report, prevent, compensate or otherwise mitigate the social, health and environmental implications of the policy, plan or programme being assessed. SEA enhances the benefits of the policy, plan or programme. In particular, SEA is effective at preventing expensive and damaging errors.

5 SEA is a decision-making tool designed to promote better projects, to postpone questionable projects, and help cancel the worst projects in a programme. SEA selects among alternatives. Effective SEAs rank alternatives in a sector in one or more orders of quality (for example, more vs. less sustainable, lower vs. higher social impacts). Thus, SEA obviates the need for the project level ESA 'Analysis of Alternatives'.

6 SEA is totally transparent and fully participatory, as mandated by UN Aarhus Convention, for example. Fully informed prior consent (FPIC) is the goal.

7 SEA subsequently phases into conventional ESA of individual projects. Project level ESA is reactive in that it takes a proposed project and assesses the environmental implications. ESAs that follow SEA will be faster and cost less be cause only better projects will have been initiated, and the Analysis of Alternatives will be unnecessary.

Environmental Management Systems (EMS)
The most widely used model for EMS is the International Organization for Standardization (ISO) 14000 Environmental Management Specification series. Companies which meet this standard are awarded ISO 14001 certification. A number of other certification schemes dealt with under supply chain management might be relevant to biodiversity management activities.

The ISO 14001 requirements are comprised of five main categories ensuring that environmental issues are effectively addressed in project and company activities and operations: Environmental Policy, Planning, Implementation and Operations, Checking and Corrective Action, and Management Review. At each of these stages, it is possible to integrate biodiversity considerations to more fully address the potential biodiversity impacts of a particular project. Although these five steps are often represented in a linear sequence, many of them will be conducted simultaneously and in an iterative manner. The following are examples of ways to adapt standard environmental activities to include biodiversity considerations:

Environmental and Social Impact Assessments (ESIAs)
The Environmental and Social Impact Assessment (ESIA) process is a way to identify, predict and assess the type and scale of potential biodiversity impacts, and opportunities to benefit conservation, associated with any business activities or projects. Biodiversity assessment should begin as early as possible, as effective assessment of the biodiversity characteristics of an area - and the potential impacts - may require months or even years, to account for seasonal and migration issues. In addition, early attention to biodiversity issues means that potential impacts can be identified and avoided or mitigated in the earliest stages of planning. Once a project or business activity proceeds, the costs of redesign or re-siting will make it more difficult to effectively address biodiversity issues. The standard social and environmental impact assessment process is illustrated in Figure 2.

In April 2002, the 6th Conference of the Parties (COP6) of the CBD endorsed a set of draft guidelines for incorporating biodiversity-related issues in ESIAs. That decision recommended that impacts be evaluated at the genetic, species/community and ecosystem/habitat levels, and also in terms of ecosystem structure and function. It further noted that the ecosystem approach should encompass the appropriate temporal and spatial scales of the potential impacts, as well as the functions of biodiversity and its tangible and intangible values for affected people, the type of adaptive mitigation measures required, and the need for stakeholder participation in decision-making.

Any ESIA will need to address the existing set of applicable government standards and requirements relating to biodiversity or the protection of biological resources. How effectively a government protects biodiversity depends on the combination of applicable standards, enforcement and ESIAs, rather than the ESIA process alone. In some cases, that combination will help to ensure that the biodiversity impacts of a new project will be reduced to an acceptable level. In other cases, it will not. An ESIA is essentially a procedural standard and does not guarantee high performance in regard to the management of biodiversity issues. Furthermore, and more importantly, the fact that an ESIA is completed by a company or government for a

project does not necessarily mean that the level of impact will be acceptable. The recommendations of an ESIA should be open to challenge by all stakeholders, ideally through an independent judiciary. In all cases, the commitment of a company to a high standard of environmental management will play an important role in determining the final, long-term effect on biodiversity from the operation.

One of the most effective ways to ensure that an ESIA process is fair and credible is through full and public stakeholder engagement, with all affected and interested parties. While stakeholder involvement in some form may occur throughout the ESIA process, it tends to be focused on the scoping and review steps. Depending on the project, engagement at the local, regional and/or international level may be appropriate. Stakeholder engagement can help to identify additional, unofficial sources of biodiversity information and ensure that all biodiversity concerns are noted. This is particularly important where biological resources have both functional and cultural importance for local people. Local communities often have knowledge and expertise that is extremely valuable in project planning and implementation. Indigenous communities in particular may have specific and detailed knowledge of the properties of plants and animals, the functioning of ecosystems, and techniques for using and managing them.

While it might be argued that standard ESIAs include biodiversity issues, these assessments are normally focused only on primary rather than secondary impacts, and concerned only with selected species and habitats within the project boundary. A full integration of environmental and social issues that encompasses biodiversity concerns will look beyond the project's boundaries and lifetime, to include the wider, cumulative impacts of a project over a broader ecosystem area. It is important to examine these effects over the long term, as seemingly small or gradual changes may have a very significant cumulative impact. Often, the holders of traditional knowledge of an area may have important insight into the potential for such changes. In some cases, a Strategic Environmental Assessment may be required to assess cumulative impacts, by assessing impact over a larger area and during a longer period of time, considering impacts due to interactions with other projects and activities and evaluating significance in terms of different spatial or temporal scales.

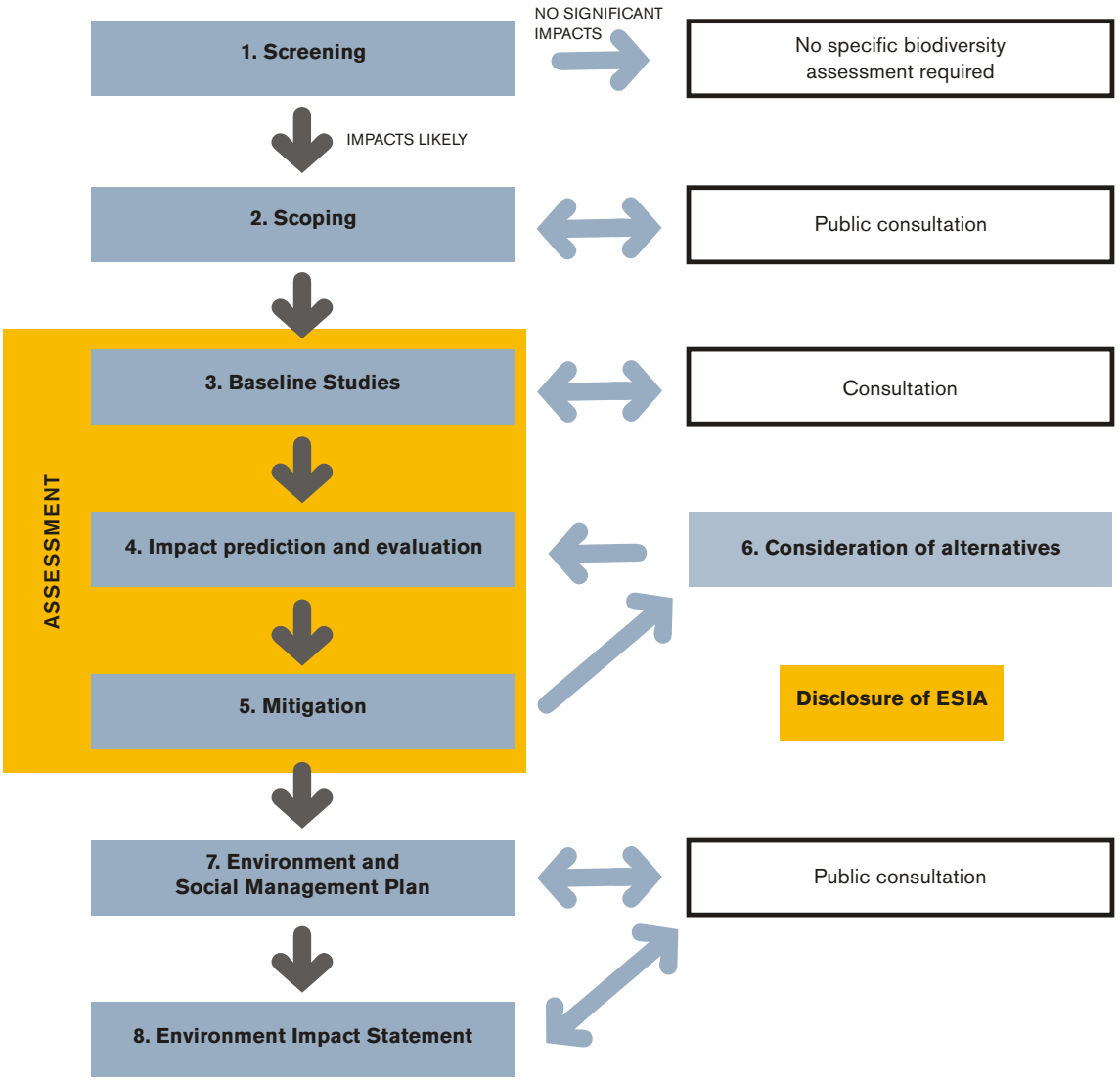
Partnerships with NGOs and civil society organizations

Local, national and international partnerships are essential to manage biodiversity impacts and risk. Effective partnerships demonstrate the following characteristics: Partners are involved in setting the partnership vision and goals; partnerships are designed to support corporate biodiversity policy, strategy and biodiversity action plans/ site management plans; partnerships help meet the objectives of other partners and support national/ community biodiversity priorities; and the partnership has measurable outcomes that are monitored and reported. A growing number of companies are entering genuine partnerships with civil society organizations, including conservation organizations. A Dutch partnership between the industry and NGOs working towards sustainable production of tropical shrimp is outlined in Box 7.

Step 6 Biodiversity and the company model

Companies often find that they do not have a clear picture of where they stand in relation to the market on biodiversity issues, or what activities are already underway within their own company that relate to biodiversity. Figure 1 visualizes one way for a company to approach biodiversity issues in a stepwise manner. Another way to assess where your company stands in relation to biodiversity issues is to carry out a benchmark.

Figure 2 An overview of the principal stages of an ESIA relevant to biodiversity



Box 7
The IUCN NL/Oxfam NOVIB/Heiploeg BV Shrimp partnership

There is now wide spread acknowledgement within the tropical shrimp industry about the ecological and social impacts of tropical shrimp production and the associated risks and business case therein. This has been evidenced not least by the rise of environmental, ecological and social elements within 'shrimp certification' schemes such as the US based Aquaculture Certification Council (ACC). Heiploeg BV, one of Europe's largest shrimp traders, in partnership with IUCN NL and OxfamNOVIB, is part of an initiative to address these risks within the European market.

The 'culture shrimp' side of the partnership strategy revolves around having biodiversity and social elements incorporated into the retail tool known as GlobalGAP. GlobalGAP is a quality assurance scheme that aims to "objectively verify practices within the producing countries which abide by (particular) principles in a systematic and consistent way". This is done via "a system of control points, controlling practices within a management system, and compliance criteria, indicators which show compliance to the control points".

One of the key challenges within this initiative relates to incorporating producing country stakeholder input. NGOs in producing countries still perceive shrimp production as having considerably more costs to their members and populace than benefits, and for this reason are still anti the shrimp industry as a whole. But without their support and input, both in developing the standards and verification processes, the initiative will have little meaning or legitimacy. Another challenge is in finding ways to verify that the key ecological and social compliance criteria have been met. Auditing of shrimp farms and factories currently revolves around food quality and safety issues – both relatively easier to monitor through sampling, testing and the HACCP (Hazard Analysis and Critical Control Point) concept. Ecological and social issues require not only different sets of data and information, but different skills and methods of obtaining and collating them. These are also two challenges yet to be addressed by the ACC.

In 2003 Insight Investment, one of the UK's largest asset managers, developed a 'Biodiversity Benchmark Framework' (Insight Investment, 2003) which aimed at increasing understanding of how companies in the Mining & Minerals, Oil & Gas, and Utilities were managing the risks and opportunities related to their impacts on biodiversity, and clarifying best practices. It provides a methodology and framework for the analysis of a company's performance against a set of criteria across four key elements of a company: Governance Structure; Policy & Strategy; Management and Implementation; and Assurance and Reporting (see Box 8). The focus of the study was on the processes that companies should have in place to ensure that they can identify, understand and manage the risks associated with their impacts on biodiversity. Although developed for Mining & Minerals, Oil & Gas, and Utilities, this type of approach could be a starting point to benchmark your own company as the elements refer to managing biodiversity risk within a generic business model.

Box 8
The key elements and criteria of the 'Biodiversity Benchmark Framework'

Governance
- Responsibilities: Responsibility for biodiversity performance is assigned at all levels.
- Risk management: Biodiversity risks have been factored into risk evaluation for normal business operation and changes in operations.
- Stakeholder engagement: Engagement is undertaken to inform understanding of biodiversity issues and impacts and possible responses at local and global level.
- Integration: Biodiversity risks and opportunities are integrated at key decision making points, including investment decision making, the assurance process, operational management, business planning and risk evaluation.

Policy and strategy
- Policy: The company makes a policy commitment to understand and manage biodiversity risks.
- Strategy: A strategy is in place which sets out the company's key impacts, activities and objectives with the intention of acting as a framework to drive biodiversity performance.

The following characteristics of a strong policy/strategy include: Commitments to work in partnership and dialogue; to understand, avoid, minimize and mitigate impact; to offset unavoidable impact on biodiversity and/ or make a positive contribution to biodiversity; to integrate biodiversity into core business processes; to develop objectives and targets and report progress; and to continuous improvement. Also, the policy/strategy should reference the legal framework relevant to biodiversity, e.g. the Convention on Biological Diversity.

Management and implementation
- Site selection tool: A process has been developed to ensure that biodiversity is factored into initial decisions on siting of new locations or activities. Potential tools include the use of Geographic Information Systems or databases of sensitive sites. These would be used well before the decision to proceed with an investment and, in combination with the ESIA, may result in a decision not to proceed.
- Environmental and social impact assessments (ESIA): Evidence is sought that biodiversity is integrated within tools used for ESIA and these are being implemented in all locations.
- Site level biodiversity management: Biodiversity is managed either through integration of the issue into site management plans or through the development of Biodiversity Action Plans for all sensitive sites.
- Partnerships: Local, national and international partnerships are essential to manage biodiversity impacts and risk.
- Competencies and employee awareness: Key staff competencies are ensured by recruitment or training programmes, for example focused training on impact assessment or negotiation with communities. Mechanisms are in place to raise awareness of employees in key positions on issues relating to biodiversity.

Monitoring, reporting and assurance
- Internal audits: Internal reviews are conducted on the extent to which biodiversity risks are being managed at all levels of the business.
- External independent audits: Independent external reviews are conducted on the extent to which biodiversity risks are being managed at all levels of the business.
- Third party report verification: A third party verifies the company's externally reported information regarding biodiversity management.
- Key performance indicators: The company reports on its programs to evaluate risks around biodiversity and, if these risks prove significant, discloses its approach to managing biodiversity impact, indicating progress against strategy. Sensitive sites: The company demonstrates that it has reviewed its own operations to determine level of risk relating to sensitive sites, discloses key risk areas and action to manage them.

Steps 7 & 8 Indicators, assurance and reporting

A company must be able to measure its performance against targets, relevant standards and stakeholder expectations, so that it can evaluate if corrective action needs to be taken and where future targets should be set or revised. A process for regular monitoring and evaluation should be built into all sections of the action plan.

In order to produce reports on performance against biodiversity objectives, data should be collected from across the company using compatible methods so that it can be aggregated and summarized. A growing number of companies are reporting publicly on their social and environmental performance, for instance following the protocols and indicators of the Global Reporting Initiative (GRI), as outlined in Box 9. The reports can be an important tool for communicating with stakeholders, particularly NGOs and potential investors. However, the information required by these groups can differ widely, so companies need to think carefully about the purpose of their reports.

Box 9
GRI biodiversity indicators

The third generation of the GRI indicators and protocols for reporting (G3) were released in October 2006, and include the following biodiversity indicators:

(EN11) Location and size of land owned, leased, or managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected area.

(EN12) Description of significant impacts of protected areas and areas of high biodiversity value outside protected areas

(EN13) Habitats protected or restored.

(EN14) Strategies, current actions, and future plans for managing impacts on biodiversity.

(EN15) Number of IUCN Red List and national conservation list species with habitats in areas affected by operations by level of extinction risk.

GRI has also published a Biodiversity Resource Document, providing background information on biodiversity issues relevant for business and focusing on reporting.

Standardization, certification and accreditation are becoming increasingly important for market-based initiatives that pursue a wide range of public goals:

- Standardization involves the codification of information and enables companies to communicate with their suppliers, customers, governments and other stakeholders.
- Certification enables companies to demonstrate credibly that they comply with the requirements in the standards. Accreditation enables national agencies to oversee the activities of the certifying bodies, ensuring a degree of competence and consistency in their testing.

- These three steps play an essential role by increasing customer confidence in products, and by facilitating international trade and investment.

Three key changes over the last 10 years have pushed standards into the world of sustainable development, and vice versa.

1 Governments have realized that there is a limit to what can be achieved through "command and control" regulations. A robust legal framework is still an essential foundation for any domestic sustainable development policy, but it has been generally agreed that market-based incentives also have an important contribution. The Plan of Implementation of the World Summit on Sustainable Development (WSSD) calls on governments to encourage industry to improve social and environmental performance through voluntary initiatives, including environmental management systems, codes of conduct, certification and public reporting on environmental and social issues (para 17a). All of these rely - to a greater or lesser degree - on the existence of suitable standards and, in some cases, credible verification systems.

2 For a growing number of industries, the management of environmental and social issues is increasingly being linked with financial performance. This gives rise to a demand for two types of information: first, companies interested in managing their sustainability issues seek information on good- or best-practice; second, a wide range of external stakeholders seek information on companies' performance. Both needs can be served by the kinds of codified information communicated in standards. In the latter case, this is frequently complemented by certification or other means of conformity assurance.

3 There has been a shift in development policy towards an approach that advocates "Trade not Aid". Standards have always been important to trade and market access. The World Trade Organization's (WTO) Agreement on Technical Barriers to Trade sets out a rule-based framework for ensuring that standards do not become unnecessary obstacles to trade. As tariff levels fall, many developing countries are concerned that protectionism will re-assert itself through a web of different standards and technical regulations. They are particularly suspicious of environmental and social requirements being imposed on them through standards and technical regulations. Despite these legitimate fears, standards remain an important mechanism for bringing sustainable development policy in line with trade policy. The challenge is to defuse the political tensions and move towards technical solutions. With the growing number of labels and certification schemes, there is need for quality control, standardization and consistency. The ISEAL Alliance is working towards these goals (Box 10).

Box 10
ISEAL

The ISEAL Alliance is an association of leading international standard-setting, certification and accreditation organizations that focus on social and environmental issues.

Taken individually, the standards and verification systems of ISEAL members represent efforts to define issue-specific elements of social and environmental sustainability. Taken together, they represent a holistic movement that has the potential to change the way the world does business. The ISEAL Alliance provides the framework to support the growth of that movement.

ISEAL is improving the quality of the standard-setting process through the establishment of objective criteria for how standards are set (Code of Good Practice) and through direct capacity-building of members to meet those criteria. In addition, ISEAL members are striving for performance standards that are more easily understood and measured, and that are consistent across different certification programs. Member organizations involved in accreditation are committed to continuous improvement of their programs and participate in internal peer reviews against ISO Guide 17011.

2.3 Key CBD principles for business development activities

When companies are starting to integrate biodiversity into their operations, for instance in developing strategies, applying impact assessments (ESIA), or developing and implementing biodiversity action plans (BAP), the following key CBD principles need to be followed:

Aim for Conservation and "No Net Loss" of Biodiversity

The biodiversity-related Conventions are based on the premise that further loss of biodiversity is unacceptable. Biodiversity must be conserved to ensure it survives, continuing to provide ecosystem services, values and benefits for current and future generations. Take the following approach to help achieve no net loss of biodiversity:

1 Avoid irreversible losses of biodiversity.
2 Seek alternative solutions that minimize biodiversity losses.
3 Use mitigation to restore biodiversity resources.
4 Compensate for unavoidable loss by providing substitutes of at least similar biodiversity value.
5 Seek opportunities for enhancement.

This approach can be called "positive planning for biodiversity." It helps achieve no net loss by ensuring:

- Priorities and targets for biodiversity at international, national, regional and local level are respected, and a positive contribution to achieving them is made.
- Damage is avoided to unique, endemic, threatened or declining species, habitats and ecosystems; to species of high cultural value to society, and to ecosystems providing important services.

Take an Ecosystem Approach

The CBD advocates an "ecosystem approach" because people and biodiversity depend on healthily functioning ecosystems that have to be assessed in an integrated way, not constrained by artificial boundaries. The ecosystem approach is participatory and requires a long-term perspective based on a biodiversity-based study area and adaptive management to deal with the dynamic nature of ecosystems, uncertainty and the often unpredictable nature of ecosystem functions, behavior and responses. Biodiversity concerns are not limited to protected areas. Elements of natural systems remain in even the most urbanized cities and play an often important role in the quality of life in those cities.

Seek Sustainable Use of Biodiversity Resources

Identify, protect and promote sustainable use of biodiversity so that yields/harvests can be maintained over time. Recognize the benefits of biodiversity in providing essential life support systems and ecosystem services such as water yield, water purification, breakdown of wastes, flood control, storm and coastal protection, soil formation and conservation, sedimentation processes, nutrient cycling, carbon storage, and climatic regulation as well as the costs of replacing these services. In a developing country context, this principle is likely to be a key priority–i.e., for biodiversity to be conserved and protected in this context, it is essential that it is linked to the issue of securing sustainable livelihoods for local people based on biodiversity resources.

Ensure Equitable Sharing

Ensure traditional rights and uses of biodiversity are recognized and the benefits from commercial use of biodiversity are shared fairly. Consider the needs of future as well as current generations (inter-generational needs): seek alternatives that do not trade in biodiversity "capital" to meet short term needs, where this could jeopardize the ability of future generations to meet their needs.

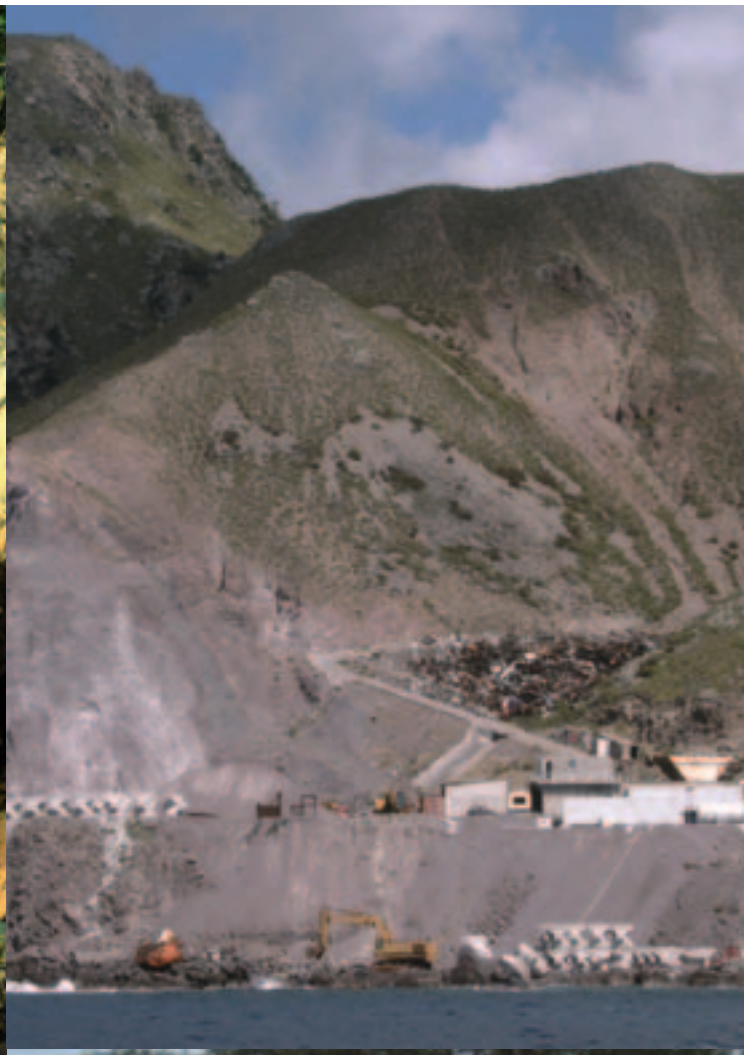
Apply the precautionary principle

There are many unknowns about the processes that influence biodiversity, particularly at ecosystem level. In areas recognized for their biodiversity resources, only activities with limited or no impact on biodiversity should be allowed to be carried out. The precautionary principle is a management concept, which implies that if impacts cannot be established with sufficient certainty through impact assessments, the activity should be halted as a precaution until enough information is available. Or as stated in the Rio Declaration: "where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to

prevent environmental degradation". The precautionary principle has been laid down in conventions, legislation, etc. such as the Rio Declaration, the EC Habitat Directive and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Take a Participatory Approach

Consult widely to ensure that all stakeholders have been consulted and that important biodiversity values are taken into account. Valuation of biodiversity can only be done in negotiation with the different groups or individuals in society (stakeholders) who have an interest in biodiversity. Use traditional and indigenous knowledge wherever appropriate. Work carefully with indigenous communities to ensure that knowledge of biodiversity is not inappropriately exploited.



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Annex 1
Status and trends in biodiversity

The Millennium Ecosystem Assessment (MA) and the second Global Biodiversity Outlook (2006) provide the most recent findings on the status and trends in biodiversity, ecosystems and ecosystem services. A summary of the main findings on trends – in ecosystems, species, genetic diversity, ecosystem services – is presented here.

Trends in ecosystems
Virtually all of Earth's ecosystems have now been dramatically transformed through human actions. Over the last 50 years, we have changed ecosystems more rapidly than in any comparable time in human history.

Forest and woodlands once covered approximately half of the Earth's land surface. However, thousands of years of human activity have reduced their extent to some 30% of total land area, of which only one-third is considered primary forest – forest of native species where ecological processes are not significantly disturbed by human activities. Deforestation, mainly conversion to agricultural land, pasture and plantations continues at an alarmingly high rate: about 13 million hectares are lost each year. Africa and South America continue to have the largest forest loss.

General patterns of change in the extent of other ecosystems show similar negative trends. The MA reported that almost 70% of Mediterranean woodlands, 50% of tropical and sub-tropical grasslands and savannas and 30% of desert ecosystems had been lost by 1990. Coastal and marine ecosystems have been heavily impacted by human activities, including fisheries. Approximately 20% of the world's coral reefs were lost and an additional 20% degraded in the last several decades, and approximately 35% of mangrove area was lost during this time. More than 50% of specific types of wetlands – including lakes, rivers, marshes, and coastal wetlands – in parts of North America, Europe, Australia, and New Zealand were destroyed during the twentieth century, and many others in many parts of the world degraded.

Trends in status of threatened plant - and animal species
Threatened species occur across all taxonomic groups (mammals, birds, amphibians, etc.) and in all parts of the world. Over the past few hundred years, it is estimated that humans have increased species extinction rates by as much as 1,000 times the background rates typical over Earth's history (MA 2005).
Between 12% (birds) and 39% (fishes) of species within well-studied taxa are threatened with extinction, according to the IUCN Red List of Threatened Species (IUCN 2007). (www.iucnredlist.org)

Trends in genetic diversity of domesticated animals, cultivated plants, and commercial fish species
Human wellbeing, particularly food security, depends at present on a small group of crops – a few hundred- and domesticated animals – a few dozen. Failure of one individual crop can have far-reaching consequences. Loss of genetic diversity through the disappearance of locally adapted varieties and races of crops and livestock breeds is widely reported but difficult to quantify. It has been estimated that one third of the 6,500 domesticated animal breeds are currently threatened with extinction (CBD 2006). Beyond cultivated systems, over-exploitation of wild harvested species, including several marine fish species, has led to decline in population size and distribution and as a consequence has contributed to the loss of genetic diversity. Over-harvesting of valuable timber trees has similar effects.

Trends in ecosystem services

Of the 24 ecosystem services that the MA examined, only four services have been enhanced, most related to food production: crops, livestock, aquaculture, and recently carbon sequestration. In contrast, 15 other services have been degraded, including capture fisheries, timber production, water supply, waste treatment, water purification, natural hazard protection and many cultural benefits (MA 2005). Modifications of ecosystems to enhance one service, i.e. food production, have generally come at a cost to other services due to trade offs. The impacts of these trade-offs affect different people in different ways. For example, the construction of a dam may gain welfare for a region through power generation, but may negatively affect local communities by threatening downstream, water provision and subsistence farming. Even where the net economic benefits of changes leading to the loss of biodiversity have been positive, many people have often been harmed by such changes. In particular, poor people, particularly those in rural areas in developing countries, are more directly dependent on biodiversity and ecosystem services and more vulnerable to their degradation.

Links

Millennium Ecosystem Assessment:
www.maweb.org

Global Biodiversity Outlook 2:
www.cbd.int/gbo2

Annex 2
Overview of sources of information, networks and initiatives

There are numerous sources of information on business and biodiversity. In addition, the number of business initiatives and partnerships with NGOs on biodiversity are also growing. This annex provides an overview of both the main general Dutch and International initiatives. The sector specific initiatives are listed in the sector notes.

The Netherlands

AIDEnvironment
AIDEnvironment is a non-profit consultancy focusing on nature conservation, sustainable management of natural resources and poverty alleviation. Its main strengths and experience include ecological expertise, experience with strategic instruments, and networks in the social, public and private sectors. (www.aidenvironment.org)

CREM – Business and biodiversity activities
CREM is a research and consultancy firm, specialized in sustainability issues. In the field of 'business and biodiversity' it has, among others, developed methods and manuals to determine the biodiversity impact of products and production processes as well as identifying improvement measures. It also provides training in the use of such instruments. Analyzing the impact of specific products and production processes is another expertise. (www.crem.nl)

IUCN Netherlands Committee – Ecology and Economy Unit
This unit aims to raise awareness of various Dutch actors who play a role in current unsustainable practices in the supply and production chain: private sector/companies, financial institutions, the Dutch Government, consumers and civil society organizations. Another objective of the unit is to help achieving sustainable production and consumption, through dialogue, lobbying and joint partnerships. (www.iucn.nl)

MVO Platform
MVO Platform is a network of Netherlands civil society organizations, working together to stimulate, facilitate and coordinate Corporate Social Responsibility. Currently, the MVO-platform has 35 member organizations. (www.mvo-platform.nl)

Netherlands Clearing-House Mechanism for Biodiversity
This information platform is a national contribution to the implementation of the Convention on Biological Diversity (CBD). The NL CHM portal aims to offer information on the convention and its implementation in the Netherlands. It also provides easy access to knowledge about status and trends of the biodiversity in this country and brings you into contact with the people and organizations involved. (www.netherlands.biodiv-chm.org/)

Netherlands Commission for EIA
The Netherlands Commission for EIA advises decision makers – government ministers and provincial and municipal councils – on the environmental aspects of plans and projects. The Commission advises on the scope of EIAs (what are the relevant impacts and alternatives?) and prepares advisory reviews of the content of environmental impact statements (is all necessary information present and correct?). The Commission remains outside political decision making and does not express a preference for one alternative or another. It acts as an independent expert watchdog to improve the quality of Environmental Impact Statements

(EISs). On request, the Commission also provides advice to the private sector. (www.eia.nl)

VBDO
VBDO is the Dutch Association of Investors for Sustainable Development. Its main goal is to represent its members on all issues that are important to them. Since her start in 1995 VBDO has been actively engaging with Dutch listed companies on corporate social responsibility (CSR). For VBDO CSR is one of the main drivers for shareholder returns in the long term. VBDO is a not for profit association open to membership of financial institutions, service providers and private investors. VBDO has initiated several projects in the area of business and biodiversity, including the development of Biodiversity Quick Scans for agri-business and the financial sector. (www.vbdo.nl)

VROM Internet Guide Biodiversity Works ("Biodiversiteit werkt")
The Netherlands Ministry of Housing, Spatial Planning and the Environment (VROM) is raising awareness on biodiversity through an internet guide "Biodiversity werkt". The aim of the guide is to inspire and create awareness on the benefits and opportunities of (working with) biodiversity in people's environment. The target audiences include citizens, local governments, civil society organizations and the private sector. The website provides information on ongoing local biodiversity initiatives, tools for starting such initiatives and how to establish a Biodiversity Action Plans. It also provides specific guidelines for the business sector. (www.vrom.nl/biodiversiteitwerkt)

World Wildlife Fund the Netherlands (WNF) – Business Program
The Business Unit of WWF the Netherlands (WNF) is collaborating with the private sector to make business more sustainable, and to engage businesses in nature conservation. WNF is active in the energy sector (partner with ESSENT), food and agribusiness (including fisheries), the timber sector, tourism, and transport. WNF is participating in the Round Table processes for Responsible Soy and Palm Oil. (www.wnf.nl)

International

Biodiversity Economics
Biodiversity Economics is a website devoted to the economics of biodiversity. The site is sponsored by IUCN and WWF and aims to promote economic approaches to the conservation of nature by providing access to key documents, a calendar of events, and a database of practitioners around the world. (www.biodiversityeconomics.org)

Biosafety Clearing House
This website has been established to facilitate information provision to parties to the Biosafety Convention. (www.bch.cb.int)

Business and Biodiversity Resource Centre
The Business & Biodiversity Resource Centre aims to raise awareness of biodiversity and provide information and practical advice for companies to engage with biodiversity issues. The Centre is hosted by Earthwatch Europe and supported by Innogy plc and the UK Department for Environment, Food & Rural Affairs (DEFRA). (www.businessandbiodiversity.org)

Clearing House Mechanism CBD
This Clearinghouse has been established following the Convention on Biological Diversity. Parties entered into the CBD can use the Clearing House Mechanism to disseminate information on biological diversity, relevant researches and projects and the execution of specific stipulations of the CBD. (www.biodiversity-chm.nl)

Conservation Commons
The Biodiversity Conservation Information System (BCIS), a consortium of ten international conservation organizations and programs of IUCN -The World Conservation Union, collectively represent the single greatest global source of biodiversity conservation information in the world. A key product of the BCIS process has been the establishment of the Conservation Commons, a collaborative effort to improve open access to data, information, and knowledge related to the conservation and sustainable use of biodiversity with the belief that this will contribute to improving conservation outcomes. (www.biodiversity.org)

Conservation Measures Partnership
The Conservation Measures Partnership (CMP) is a partnership of conservation non-governmental organizations that seek better ways to design, manage, and measure the impacts of their conservation actions. CMP offers the possibility of using the standard taxonomy of biodiversity threats and management actions to describe the work that industry and others are doing in a standard way (taxonomies are available on its website). (www.conservationmeasures.org)

Convention on Biological Diversity (CBD) – Business and Biodiversity Initiative
It is an initiative primarily dedicated to helping the 'business and biodiversity community' better prepare CBD meetings and, more generally, follow and contribute to the implementation of decision VIII/17, which aims to engage the private sector in the implementation of the CBD-objectives. Secretariat focal point for business is Nicolas Bertrand: nicolas.bertrand@cbd.int. (www.cbd.int)

Global Biodiversity Forum
The Global Biodiversity Forum (GBF) was founded in 1993 by IUCN, WRI, UNEP, and ACTS and includes a number of other institutions as its convenors. It is an open and independent mechanism to encourage analysis, dialogue and partnership on key ecological, economic, social and institutional issues related to biodiversity. It contributes to the further development and implementation of the Convention on Biological Diversity (CBD), the Ramsar Convention, the
Framework Convention on Climate Change, the Convention to Combat Desertification and other biodiversity-related conventions at the local, national, regional and international levels. (www.gbf.ch)

Global Compact
The United Nations Global Compact is a voluntary international corporate citizenship network initiated to support the participation of both the private sector and other social actors to advance responsible corporate citizenship and universal social and environmental principles to meet the challenges of globalization. It encourages businesses worldwide to adopt sustainable and socially responsible policies, and to report on them. Under the Compact, companies are brought together with UN agencies, labour groups and civil society. It aims at mainstreaming ten environmental and social principles in business activities around the world. (www.unglobalcompact.org)

Global Reporting Initiative (GRI)
The GRI is an international, multi-stakeholder effort to form a consensus for voluntary reporting of the economic, environmental and social impacts of the business sector. Its mission is "to elevate the comparability and credibility of sustainability reporting practices worldwide". The GRI incorporates the active participation of businesses, accountancy, human rights, environmental, labour and governmental organizations. In October 2006, the third generation (G3) indicators and protocols for reporting have been released, including biodiversity indicators. GRI has also published a Biodiversity resource document, providing information on biodiversity issuers relevant for business and focusing on reporting. (www.globalreporting.org)

High Conservation Value Resource Network
The High Conservation Value Network HCV Resource Network aims to enhance understanding of the concept of High Conservation Values in forest and land management across the globe and to promote the consistent application of the concept and the tools associated with it. (www.hcvnetwork.org)

International Association for Impact Assessment (IAIA)
IAIA is the leading global authority on best practice in the use of impact assessment for informed decision making regarding policies, programs, plans and projects. It brings together researchers, practitioners, and users of various types of impact assessment in order to provide an international forum for advancing innovation and communication of best practice in all forms of impact assessment to further the development of local, regional, and global capacity in impact assessment. (www.iaia.org)

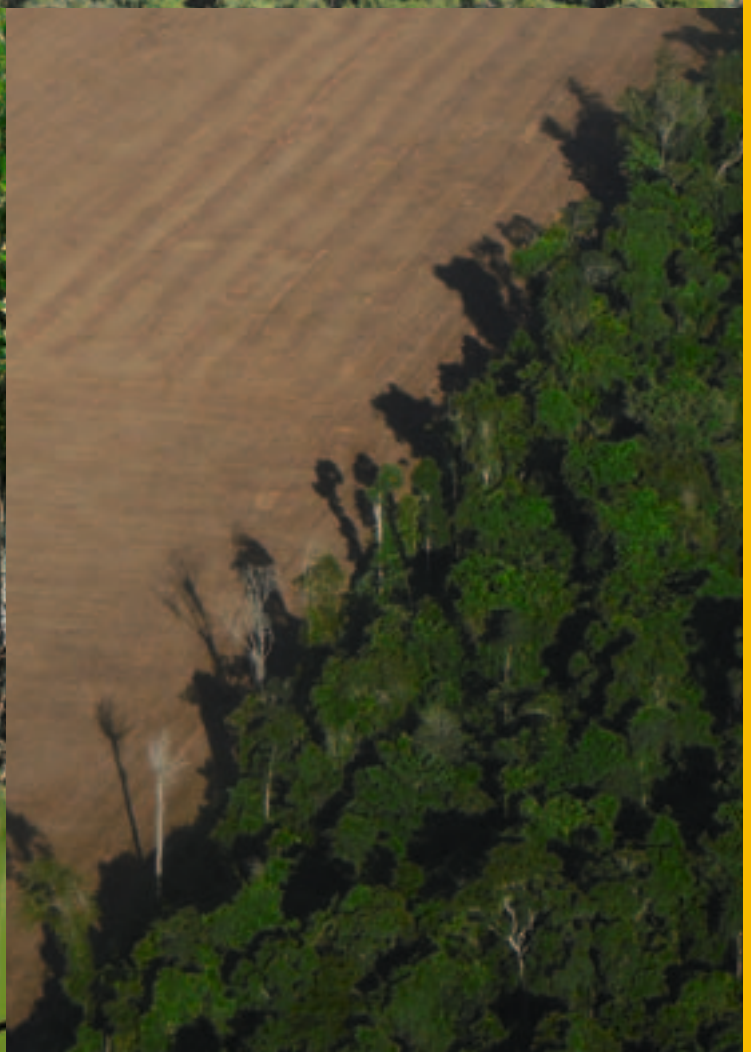
ISEAL
The ISEAL Alliance is an association of leading international standard-setting, certification and accreditation organizations that focus on social and environmental issues. (www.isealalliance.org)

IUCN Business and Biodiversity Programme
Since 1948, IUCN has been a global partnership of states, government agencies, NGOs, and experts. Active in over 150 countries, IUCN's mission is to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable. The IUCN Business and Biodiversity Programme brings this mission to the private sector. (www.iucn.org/themes/business)

Millennium Ecosystem Assessment
The Millennium Ecosystem Assessment is an international initiative launched by the United Nations and led by the United Nations Environment Program (UNEP) and the World Resources Institute (WRI) to assess the conditions of the world's ecosystems. (www.maweb.org)

World Business Council for Sustainable Development
The World Business Council for Sustainable Development (WBCSD) is a coalition of 200 international companies united by a shared commitment to sustainable development via the three pillars of economic growth, ecological balance and social progress. (www.wbcsd.org)

World Database of Protected Areas (WDPA)
The World Database on Protected Areas (WDPA) provides the most comprehensive dataset on protected areas worldwide and is managed by UNEP-WCMC in partnership with the IUCN World Commission on Protected Areas (WCPA) and the World Database on Protected Areas Consortium. The WDPA is a fully relational database containing information on the status, environment and management of individual protected areas. (www.unep-wcmc.org/wdpa)



Part 2

Sector Notes

The general part of the guidelines has tried to clarify the term 'biodiversity', and how companies can deal with it – what are we talking about when we refer to 'biodiversity'; what key terms and concepts must businesses understand and gain some insight into it; how are humans and businesses affecting key biodiversity elements; what are our governments and the other large public institutions doing about biodiversity; how do businesses rely on the biodiversity asset base and how are they affecting it; what are core components and tools of systems for managing biodiversity risks.

In addition to the general section, sector notes have been prepared for some of the key business sectors that either rely on the biodiversity asset base and the services it provides and/or contribute significantly to their erosion. They also have been chosen on the fact that IUCN NL has gained experience and knowledge on those sectors over the last few years. The sectors are:

- Agribusiness: soy and palm oil
- Seafood: fisheries and aquaculture
- Oil and gas
- Forestry and paper industry
- Tourism
- Financial sector

Each sector note has the following elements:

1 Interactions of the sector with biodiversity

2 The business case

3 Measures, tools, good practices and initiatives*

4 Progress and challenges

* Those measures, tools, etc. are classified into two main categories; 'governance, policies and strategies' and 'management, implementation and assurance'. Certain initiatives are clearly related to one of those categories, others cover both.

IUCN Netherlands Committee will publish these factsheets online, and one possible future activity is to prepare regular updates (living documents). (www.iucn.nl)

Sector Note 1
Agribusiness: Soy and Palm oil

1 Interactions with biodiversity

The Netherlands imports large volumes of soybeans and palm oil, which are used for the production of a wide variety of products, both edible and non-edible. Agribusiness, including the soy and oil palm sectors, is directly dependant on healthy ecosystems, for nutrient rich soil, water provision, pollination and genetic diversity to secure a long-term viable agriculture. The growing global demand for soy and palm oil has led to a considerable expansion of soy and palm oil plantations at the cost of ecosystems and biodiversity, notably in South East Asia (palm oil) and South America (soy). Some of the main impacts on biodiversity include:

- loss of habitat for many animal and plant pecies;
- loss of native plant resources, many of which are the source of traditional medicines and health food products;
- excessive water use;
- pollution: monocultures such as soybean and oil palm require the extensive use of fertiliers, pesticides, agro-toxins, etc. The surpluses of these chemicals end up in the ground and surface water posing serious risks for biodiversity. Industrial pollution occurs as a result of the processing of the soybeans and oil palm fruits in plants and refineries.

2 The business case

The main factors for the sector to address biodiversity include:

- Security of harvests: in agricultural systems maintenance of soil biodiversity, pollination, watershed protection and sufficient water supply are key factors to secure production.
- Reputation: Consumers and NGOs in the Netherlands/the EU are increasingly asking information on sustainable soy and palm oil production. Soy/Palm oil producers/exporters can be requested to provide a “biodiversity track record”, otherwise traders source elsewhere.
- Access to capital: Producers/traders requesting capital will be scrutinized by Dutch banks. For example, Rabobank, Fortis and ING have signed the Equator Principles, and some have developed a tropical forest policy.

3 Measures, tools, good practices and initiatives

Governance, policy and strategy

Round Table Initiatives for Palm Oil and Soy: Unilever, WWF and other partners have organized global Round Table Meetings (RT) on Responsible Palm Oil and Soy. The RTs for palm oil and soy pursue the following objectives:

- reach consensus among key stakeholders and players linked to the industry;
- act as Forum to develop and promote criteria for the production on an economically viable; socially equitable and environmentally sustainable basis;
- promote and replicate sustainable pilot projects;
- act as an internationally recognized Forum for the monitoring of global production in terms of sustainability;
- mobilize diverse sectors interested in participating in the Global Roundtable process and organize Roundtable Conferences on a periodical basis.

It is important that the RT processes develop broad-based criteria for responsible production at a worldwide level. The Basel Criteria are an important step in this direction.

The Round Table on Responsible Palm Oil (RSPO) has developed Principles and Criteria for Responsible Palm Oil Production in 2005. During a two

year period, these are being field tested. During and after this period, member producers will be looking for ways of improving the sustainability of their palm oil production. (www.rspo.org)

For soy, the Round Table on Responsible Soy (RTRS) is defining Principles and Criteria for responsible soy production. These should be established in early 2008. Several Dutch organizations, individual companies like Unilever and Nutreco, as well as branch organizations (MVO, Nevedi) have played a major role in stimulating the process to achieve tangible results. (www.responsiblesoy.org)

Moratorium on soy from the Amazon: An example of a recent initiative to halt further loss of biodiversity is the moratorium on soy from the Amazon. This moratorium, agreed upon in July 2006 for a period of two years, has been reached after intensive lobbying of Greenpeace in alliance with the food sector and retailers, including McDonald's, El Corte Ingles, Waitrose, Asda, Alpro, Ritter-Sport and Tegut. Leading Brazilian and international soy processors and exporters, also including Cargill, Bunge, ADM en Amaggi, have signed the agreement, designed to curb deforestation in the Amazon due to soy planting.

Management, implementation and assurance

For both soy and palm oil, guidelines including principles and criteria have been developed to ensure an ecologically and socially responsible production, such as the Basel criteria for soy[1]. The most important criteria at the production / field level related to biodiversity and the environment are:

- No conversion of primary vegetation and High Conservation Value Areas to agriculture land, taking the year 2004 as a baseline. For conversions between 1994 and 2004 compensatory measures should be taken, including on-farm restoration activities, procuring and protecting areas of natural vegetation areas locally, and financing local conservation initiatives;
- On-farm conservation measures need to be taken, with special consideration of rare, endangered or endemic species and habitats, and with an understanding of important local conservation issues. Such measures include for instance restoration of (riparian) forests and establishment of ecological corridors;
- Maintaining soil and water quality by introducing better management practices;
- Avoid use of GMO-material (seeds, beans);
- Compliance with national/local environmental legislation.

The Basel criteria recommend full traceability and independent control throughout the supply chain. Processors, traders and retailers should source certified soy and palm oil.

Certification: For soy a number of certificates have recently become available. Some of these, for instance the ProTerra Certification Program from Cert ID, comply fully with the Basel-criteria, as well as with the principles of other important international accords on social and environmental responsibility, and responsible agricultural management such as SA8000.

4 Progress and challenges

In both sectors initiatives have been taken by industry and NGOs to enhance the sustainability of soy and palmoil production, such as both Round Table processes. It is important that also other companies take part in these discussions. The aim is that all main producing companies and other partners in the commodity chain will subscribe to the Principles and Criteria for both sectors. With respect to the key steps for action on biodiversity it should be noted that certain companies like Unilever and Nutreco are playing a positive role by acknowledging the business case, developing environmental management systems, and indicators and assurance processes and by annual reporting following the GRI guidelines. For example, Unilever has integrated biodiversity into the principles of its sustainable agriculture programme, its water sustainability initiative, and its fish sustainability initiative. (www.unilever.com).
Many other companies, however, are more passively involved, and still have to define their business case, policies and strategies.

Note

1 The full Basel Criteria are available at http://assets.panda.org/downloads/05_02_16_basel_criteria_engl.pdf

Sector Note 2
Seafood: Fisheries and Aquaculture

1 Interactions with biodiversity

Biodiversity provides a diverse range of edible plant and animal species that have been and continue to be used as wild sources of food. The most globally significant source of wild food is fish (incl. finfish, mollusks and crustaceans), both in developing and developed countries.
Current estimates clearly indicate that global fish stocks are under great pressure, and are regionally being depleted. Besides the impacts on actual fish stocks, evidence increasingly points to the importance of seabed habitats and non-target species, often affected during certain types of fishing operations, for the functioning of marine ecosystems and sustainable supply of stocks. During the past 50 years aquaculture has become a commercially significant source of food, and is now the fastest growing food producing sector. Demands for space in coastal areas for aquaculture have consequently been on the rise, and the doubling of aquaculture production in the last ten years has driven habitat loss, overexploitation of fisheries for fishmeal and fish oil, pollution, and the introduction of invasive species. The degradation of coastal ecosystems is paradoxical as they maintain critical habitat to many species of economic importance to fisheries.
There is a recognized urgent need for new approaches to fisheries management that embrace conservation and ecological considerations.

2 The business case

The main reasons for the seafood sector to engage with the issue of biodiversity include:

- Securing supply of target fish stocks is one of the driving factors for the business case for sustainable fisheries. The health of ecosystems determines their productivity, and only by managing fisheries using an ecosystem based approach can long term supply be secured.
- Reputation and Access to Markets: Consumers and retailers are increasingly concerned with the impacts of fisheries on target and non-target species and seabed habitats, and are demanding assurances that these be addressed by the industry. Companies or fisheries associated with particular negative biodiversity impacts such as high by-catch rates suffer declining reputations leading to reduced consumer confidence and access to key retail markets.

3 Measures, tools, good practices and initiatives

Governance, policy and strategy
Some fishing and fish processing companies are beginning to adopt CSR and sustainability policies and are trying to integrate ecosystem approaches into their operations (such as selecting less damaging fishing methods and gear), management systems (utilising more ecosystem based approaches) and tools (such as certification and purchasing guidelines).

Major retailers in Europe (including Coop and Migros in Switzerland, Sainsbury's and Tesco's in the UK, Delhaize in Belgium and France, Metro in Germany, and Laurus and Albert Heijn in the Netherlands) are increasingly seeking their fish products from sustainably managed sources. In early 2006, the world's largest retailer Wal Mart (US) announced its intention to sell only fresh and frozen wild caught fish which is certified by the Marine Stewardship Council (MSC) within three to five years.

The FAO 'Code of Conduct for Responsible Fisheries' provides a voluntary framework for national and international efforts to ensure sustainable exploitation of aquatic living resources in harmony with biodiversity and the environment. Although an inter-governmental program, it

should be one of the first points of call for any company wishing to understand the biodiversity and sustainability issues related to the capture and culture of fish. (www.fao.org/)

Seafood Choices Alliance: Seafood Choices Alliance is a global trade association – from fishermen and fish farmers to distributors, wholesalers, retailers and restaurants – for the issue of ocean-friendly seafood. The building blocks of this effort include developing a consistent method for making seafood recommendations (such as the Dutch 'Vis Wijzer', literally a 'Fish Pointer/Fish Wiser'[2]), undertaking public opinion research in key markets[3], and implementing targeted educational programs for consumers and those in the seafood industry. (www.seafoodchoices.com)

Management, implementation and assurance
A number of organizations have developed or are developing labels to promote and assure the quality and/or environmental credentials of wild-caught or farmed fish.

Marine Stewardship Council (MSC): MSC is the only seafood certification system with a global coverage and credibility. At the centre of the MSC is a set of *Principles for Sustainable Fishing,* which acts as the cornerstone of good fishing practices:

- The maintenance and re-establishment of healthy populations of targeted species;
- The maintenance of the integrity of ecosystems;
- The development and maintenance of effective fisheries management systems, taking into account all relevant biological, technological, economic, social, environmental and commercial aspects; and
- Compliance with relevant local and national local laws and standards and international under standings and agreements

The MSC is currently considering options to expand its scope of certification activities to include aquaculture. (www.msc.org)

International Smart Gear Competition: WWF's International Smart Gear Competition, created in 2004, brings together the fishing industry, research institutes, universities, and government, to inspire and reward practical, innovative fishing gear designs that reduce bycatch -the accidental catch and related deaths of sea turtles, birds, marine mammals, cetaceans and nontarget fish species in fishing gear such as longlines and nets. (www.smartgear.org/)

4 Progress and challenges

The creation of a global marine protected network will in the longer term enhance both the conservation of marine biodiversity as well as the fishing and seafood industries. The existence of a widely accepted, functioning, and expanding certification system in MSC is cause for celebration, although only a fraction of the world's capture fisheries are currently certified (7% in 2007). The private sector should set particular targets to only source from MSC certified fisheries, and invest more in companies engaged in the MSC Programme. The path to 'responsible' and 'sustainable' farmed seafood is proving equally challenging, and the lack of a credible certification system is perhaps hindering progress. There is now a widely accepted *Code of Good Practice* for standard-setting[4], and companies wishing to utilise certification in addressing biodiversity and sustainability issues should ensure this Code is followed. A set of globally accepted Principles for Responsible Aquaculture could also aid development of the standards in such a system. Bycatch is a major issue, and initiatives like the International Smart Gear Competition which aim at improving fishing gear to reduce bycatch will ultimately benefit the industry. The challenge for such initiatives is to recognize innovative ideas and their potential, and find ways to promote their development and implementation.

Notes

2 www.goedevis.nl/media/File/viswijzer0708.pdf

3 www.seafoodchoices.com/resources/documents/EUConsumer2005.pdf

4 www.isealalliance.org/code

Sector Note 3
Forestry and paper industry

1 Interactions with biodiversity

The forestry sector, which includes pulp and paper, as well as timber, is entirely dependent on biodiversity. Unsustainable logging affects the various levels of biodiversity, at ecosystem, species and gene level. In case of clear-felling entire forest habitats disappear, causing decline in forest plant and animal species. Ecological processes or ecosystem functioning are impacted as well, for instance causing soil degradation and changes in the water cycle. Pollution by the pulp and paper industry poses another threat to biodiversity. Beside the direct negative impacts, the industry can have a wide range of indirect impacts by creating improved access for settlers, hunters and illegal loggers to previously inaccessible areas, via logging roads. The development of timber plantations can impact biodiversity through conversion of original natural habitats to monoculture, introduction of non-native species and ecosystem changes resulting from increased water use. The sector can also have positive impacts on biodiversity. Through sustainable forestry large tracts of relatively intact forest habitat can be maintained, thus contributing to biodiversity conservation and other vital ecosystem services (i.e. water cycling and climate regulation).

2 The business case

The main reasons for the forestry sector to engage with the issue of biodiversity include:

- Reputation: consumers are getting more aware of the need for sustainable timber production. Also large retailers are shifting towards selling only sustainable produced goods, indirectly spreading the awareness for sustainable production.
- Security of supply: Long-term survival of the forestry sector directly depends on a secure supply of valuable timber species and raw material for the pulp and paper industry.
- Access to land: the forestry sector relies on large tracts of forest land. In some countries issue of concession licenses may be denied to concession holders with a bad track record regarding sustainable forestry.
- Access to capital: many banks, including for instance Fortis, Rabobank, ING, have established forest policies that prevent the banks from engaging in activities related to illegal or unsustainable logging from primary or high conservation value forests. Conditions may also include that a forestry management plan, a biodiversity action plan, and a soil and water management plan need to be in place.
- Access to markets: through pressure of consumers, importing countries are taking measures to ban for instance illegally logged timber from their markets (for instance the EU FLEGT initiative).
- Relations with regulators: Stricter regulations from governments in both producing and importing countries can have large implications for the forestry sector, and throughout the supply chain. For instance The Dutch government has set the target that by 2010 all purchased timber will be from sustainable, certified forests.

3 Measures, tools, good practices and initiatives

Management, implementation and assurance
Good practices include the application of a landscape approach to forestry and biodiversity conservation by managing production forest adjacent to core protected areas to maintain both permanent forest cover and biodiversity so that production forests become buffer zones that effectively extend and supplement the conservation estate. Representative samples of the various forest ecosystems need to be included within protected areas. At the Forest Management Unit level, the following measures will contribute to biodiversity conservation:

- Representative samples of habitats / vegetation types occurring in forest concession need to be left untouched.
- Annual extraction of timber and non-timber forest products compatible with the sustainability capacity of the resource base.
- Use of environmentally friendly logging techniques.
- Measures to safeguard endangered wildlife species.
- No extraction and trade of CITES Appendix I timber species, and strictly regulated extraction and trade of Appendix II and III timber species.
- Soil conservation measures, and measures for protection of water courses from forest activities;
- Use of diverse and native tree species in forest plantations.

Certification is an important tool for achieving progress in sustainable forestry. Dutch initiatives include:

FSC the Netherlands: FSC the Netherlands is a foundation of companies, including timber traders, processors, retailers, and construction companies, and civil-society organizations. The foundation promotes sustainable forest management by expanding the market share of FSC timber and timber products in the Netherlands. Main activities of FSC Netherlands include awareness raising, stimulating applications and use, knowledge exchange and networking, and control of FSC-standards in the Netherlands. The timber traders, processors and retailers are all aiming to ultimately source and use 100% FSC-products. (www.fscnl.org)

Keurhout: Keurhout is an initiative facilitated by the Netherlands Timber Trade Association in the Netherlands (VVNH). It assesses the available hallmarks and certificates according to the Protocol for Validation of Sustainable Forest Management (SFM-protocol) as issued by the Dutch government. This protocol contains a set of minimum criteria for sustainable forest management and is applied for the forest management and the chain of custody. Keurhout operates as a gatekeeper, it is not in competition with FSC or other certificates, it merely checks if a certificate meets the minimum criteria of the SFM-protocol. The Keurhout hallmark system distinguishes two certificates: Keurhout Duurzaam and Keurhout Legaal. (www.keurhout.nl)

BRL – Dutch standard for sustainable forest management: Representatives of the Dutch government and the business sector have reached an agreement about a national standard for sustainable forest management. The civil-society organizations, which were involved throughout the entire process, have withdrawn from the implementation of the system. With a national system for sustainable forest management, the government expects that the percentage of sustainable wood on the Dutch market will rise significantly. The government wishes to set a good example: in 2010, all the wood bought by the government must come from sustainable managed forests. (www.vrom.nl)

4 Progress and challenges

The front runners in the Dutch sector have incorporated sustainability into their corporate policies and operations. Those include retailers (e.g. Kwantum, Gamma, Praxis), timber importers and suppliers (e.g. van den Berg, Hoogendoorn, Dekker Hout) and enterprises involved in forestry operations (e.g. Wijma). Such policies typically include targets for the share of certified timber, the exclusion of illegally sourced timber, and strategies for influencing other actors throughout the chain of custody. A main challenge remains to increase the supply of certified timber. Although sustainable forestry and certification are main issues in the sector, there is relatively little specific attention on biodiversity.

Sector Note 4
Oil and gas

1 Interactions with biodiversity

With the increasing demand for energy and the likelihood that oil and gas will be the main sources of energy to meet this demand, the risk to biodiversity from this sector is likely to increase. Remote areas previously untouched are increasingly being explored for oil and gas, posing a threat to marine and terrestrial biodiversity. The main impacts include:

- Habitat conversion through the take of land (e.g. for siting an industrial activity, pipeline laying or construction of a jetty)
- Pollution: discharges to land, sea and air that are resulting from construction and/or industrial processes (e.g. oil spills)
- Impacts that are related to the take of resources required as input into the construction and/or industrial activities. Offshore development projects pose risks from seismic testing activities that may negatively affect marine mammals, oil spills or the transport of non-native species in the ballast water of oil tankers. The potential highest risks for biodiversity may come from secondary impacts. For example a pipeline corridor or other infrastructure may encourage landless farmers to invade an area that has been uninhabited before. A main impact of the production/extraction and use of fossil fuels on biodiversity is through contribution to climate change.

2 The business case

The main reasons for the sector to deal with biodiversity are:

- Reducing operational and financial risk: International campaigns, protests and actions can impact existing operations in or near protected areas. Outrage against a project can interrupt cash flow, slow or halt operations and cause lasting damage to a company's reputation. In addition environmental impacts from operations, such as pollution, contaminated land and waste can affect the cost of the project in the long term.
- Enhancing reputation: By being seen and being credible as a good corporate citizen whose performance matches its words, companies may enhance their reputation with customers, staff, investors, suppliers, partners and the communities in which they operate. Financial institutions, investment banks and export credit agencies are beginning to integrate biodiversity elements into conditions for lending to large infrastructure development, such as oil and gas projects. They are changing the way they assess companies' performance accordingly.
- Compliance: Following the commitments some companies have made regarding health, safety, environment, sustainable development and corporate social responsibility, companies are required to assure that their activities and operations are in compliance with not only legal and regulatory requirements but equally with their own company policies, standards, and rules.

3 Measures, tools, good practices and initiatives

Governance, policy and strategy

The following recommendations for better practices in this area include:

- Establishment of public oversight to ensure fair and equal stakeholder participation during the entire project phase. Citizens Advisory Councils, for instance, are a formalized mechanism to engage local communities and citizens in the oversight of projects. In addition to transparency, the critical importance of informed public oversight is key to the improvement of the safety,

environmental practice, revenue equity, social responsibility, and ethical behaviour of extractive industries around the world. The Regional Citizens' Advisory Council (RCAC) established in Alaska to oversee the Alyeska oil terminal is one of the more effective models in this regard. Stakeholders have representatives on the council, elected by their own constituencies.
- Retaining reserves for the future: it may be prudent to leave some oil and gas in the ground for future extraction at higher value, a Strategic Petroleum Reserve.

Management, implementation and assurance
Recommendations for more sustainable management practices by the sector include:
- Zoning: identify areas where oil and gas development should and should not be allowed. All protected areas – national parks, wildlife refuges, marine protected areas –, biodiversity hotspots and critical habitats should remain off-limits to additional development. The IUCN AMMAN Declaration (October 2000), calls on governments to prohibit by law, all exploration and extraction of mineral resources in protected areas which correspond with IUCN categories I to IV protected areas. It also lays down clear recommendations for when exploration and extraction would be acceptable in categories V and VI protected areas.
- Application of what is commonly referred to as Best Available Technology (BAT) for exploration, production, pipelines, shipping, refining, etc.
- Effective oil spill prevention and response preparedness.

A number of initiatives are aiming to integrate biodiversity into the oil and gas sector, including:

The Extractive Industries Transparency Initiative (EITI): The EITI is a coalition of governments, companies, civil society groups, investors and international organizations. The EITI supports improved governance in resource rich countries through the full publication and verification of company payments and government revenues from oil, gas and mining. It aims to improve transparency and accountability of the sector. (www.eitransparency.org)

The Energy and Biodiversity Initiative (EBI): A multi-stakeholder partnership of four major energy companies ((BP, Chevron, Shell, Statoil) and five leading conservation organizations (IUCN, CI, FFI, TNC, SI), the EBI explored the relationship between oil and gas and biodiversity and made recommendations for integrating biodiversity issues into oil and gas exploration and production, from integrating biodiversity into policies and strategies to monitoring and reporting. The initiative is being criticized by some of the NGOs, and by affected people groups. (www.theebi.org)

Biodiversity Working Group: A joint initiative of the International Petroleum Industry Environmental Conservation Association (IPIECA) (www.ipieca.org) and the International Association of Oil and Gas Producers (OGP) (www.ogp.org.uk), the working group provides an industry-led forum to promote good biodiversity practice in the oil and gas sector. The group is also encouraging uptake of the EBI recommendations and guidelines and development of additional materials on good practice for biodiversity management in the sector.

4 Progress and challenges

Companies differ in the way they balance the search for and production of oil and gas with the potential risks and benefits to biodiversity conservation. The frontrunners in the sector, such as Shell, BP, Chevron, Statoil, are integrating biodiversity concerns into their policies and operations. Those frontrunners are also increasingly consulting conservation organizations and local stakeholders. However, in general, the sector needs to improve its environmental assessment, monitoring and actual performance, and improve its accountability and transparency. It requires the collaborative effort of companies, conservation organizations, governments, communities and other stakeholders to resolve the challenge between energy need and biodiversity conservation, and to shift from fossil fuel (coal, oil, gas) driven economies to sustainable energy sources. The industry can play a major role by, among others, financially supporting equitable stakeholder engagement, capacity building and offsets and application of Best Available techniques, and by investing in research and innovation to make the transition.

Sector Note 5
Tourism

1 Interactions with biodiversity

Over the last 50 years tourism has expanded to one of the main economic sectors worldwide, next to the oil – and car industry. One of the major production factors of tourism is the environment. Tourists seek clean swimming water, solitude, unspoiled nature, landscapes and cities, healthy air and a comfortable climate. Tourism interacts with biodiversity in two ways:

- positively, tourism helps to preserve areas with biodiversity by creating awareness (about the value of nature), by generating economic value and revenues for maintaining nature and by supporting local people to develop income opportunities without damaging nature and biodiversity, and
- negatively, tourism leads to loss of biodiversity by: land use change and land conversion, disturbance of natural areas and its wildlife, intensive water use, deterioration in water quality (freshwater, coastal waters) and sewage pollution, and by increasing the spread of alien species and, last but not least, by contributing to climate change.

2 The business case

Nature and biodiversity constitute a major production factor for tourism. Therefore the damage from environmental deterioration and loss of biodiversity may be felt more by the tourism industry than by most other economic sectors. Some of the sources of biodiversity risk for the sector include:

- Access to land / permit issues: Environmental Impact Assessment is required for new sites or facilities; inexperience or lack of credibility by tourism or hotel companies could cause permit delays or refusals;
- Reputation (of location, rather than company per se): for instance deforestation leading to flash flooding can gain significant negative publicity for a region;
- Access to markets: particularly nature-based tourism attract customers based on continued existence of wildlife and natural ecosystems that are part of tourist attraction;
- Security of supply: Ecosystem services provide a stable environment and supply of vital services e.g. provision of freshwater for tourism. The 'supply' of nature and wildlife, clean swimming water need to be preserved, as it is the direct commodity.

3 Measures, tools, good practices and initiatives

Measures and good practices for policies, strategies, implementation and assurance (combined)

Control and management of negative impacts include measures in the following areas:

- Planning and management of the tourist facilities (proper location, more eco-efficient, reduction of waste, etc.)
- Visitor management (type of activities, location, numbers, intensity of use, timing, etc.)
- Targeted conservation measures (e.g. zoning, regulations, preventing introduction of alien species)
- Awareness campaigns and marketing strategies for sustainable tourism
- Mitigation measures, also including compensation measures for instance for transport.

Implementation of the above measures is a joint responsibility of the various actors, including governments, the tourism industry, NGOs and the tourists. The main roles of the tourism industry – local entrepreneurs, hotel industry, tour operators, travel agents – involve among others the

implementation of environmental management systems, training of staff and guides, informing tourists, regularly monitoring and reporting on the impacts, and also sponsoring nature conservation.

Initiatives

Platform IDUT (Initiatiefgroep Duurzaam Uitgaand Toerisme): IDUT, established in 1995, is the Dutch network of organizations promoting sustainable outbound tourism. Its members range from government, universities, the tourist industry and non-profit organizations. The objectives of IDUT are: to exchange knowledge and expertise; to raise awareness on sustainable tourism and to stimulate the national debate. (www.idut.nl)

In 2003 the ANVR, the Dutch branch organization for tour operators and member of IDUT decided to integrate sustainability in its operations. It has developed a so-called Product- oriented Environmental Management System (PMZ), which is compulsory for its members. Members that do not comply with this system are expelled from the organization. The system includes the following requirements:

- assigning a sustainable tourism officer
- establishing a policy
- including operational measures on the following topics: transport, accommodation, excursions, environmental management within the own company and information for clients
- refrain from selling 'forbidden products' (including for example hunting).

Although participating in this system in fact only implies that a tour-operator sets up an infrastructure to consider sustainability issues, in practice it meant that a larger number of tour-operators got actively involved in sustainability initiatives. (www.anvr.nl) (www.pmztoerisme.nl)

Green Globe: Green Globe is the global Benchmarking, Certification and improvement system assisting the international travel and tourism industry to attain sustainability. Green Globe provides benchmarking and certification programs that respond directly to the major environmental problems facing the planet, including the greenhouse effect, over-use of freshwater resources, destruction of biodiversity, production of solid and biological waste and social issues. There are four Green Globe Standards: Company; Community; Ecotourism; and Design and Construct. These Standards underpin the benchmarking and Certification process. (www.ec3global.com/products-programs/green-globe)

Tour Operator's Initiative: There is a growing recognition within the tour operator sector that an intact natural environment is essential for the success of their business. In 2000, 15 tour operators joined to form the Tour Operator's Initiative for sustainable tourism (TOI). Together they transport more than 30 million tourists annually. TOI is focusing their activities in four areas:

- Reporting on the topic of sustainability (development of guidelines)
- Co-operation and dialogue with destinations
- Management of the tourist added value chain
- Communication.

The TOI has elaborated a reporting system for sustainability reporting in tourism based on measuring parameters specific to the activities of tour operators and their ecological, social and economic consequences. The developed guidelines and indicators are a complementary part of the Global Reporting Initiative (GRI). (www.toinitiative.org)

4 Progress and challenges

Over the last decade the Dutch tourism sector has made considerable progress in incorporating sustainability concerns into its policies and operations. The IDUT initiative has been instrumental in putting sustainability on the agenda. ANVR has developed a specific environmental management tool, PMZ, for the sector. A major challenge for the sector is to improve on monitoring and reporting on biodiversity.

Sector Note 6
Financial Sector

1 Interactions with biodiversity

Banking and finance play an important role in public policy and economic performance as well as in all forms of commerce and industry. Although the sector has not a major direct impact on biodiversity, they play a significant role through provision of financial support to high-impact sectors such as agri-business, forestry, infrastructure, oil and gas, mining, sectors that are using genetic resources such as biotechnology and pharmaceuticals, and sectors that indirectly impact biodiversity for instance through the supply chain (e.g. processing industries, traders, retailers). At the positive side, the financial sector may invest in projects that conserve biodiversity.

To a minor extent, the sector directly impacts on biodiversity through office location, use of materials, energy efficiency, etc. The challenge for the financial sector can be seen as twofold: how to increase positive investments in biodiversity whilst avoiding those with unfavorable impacts.

2 The business case

Although the financial sector is not directly interacting with biodiversity, banks are increasingly confronted with risks for bad reputation when they invest in projects that harm the environment and/or lead to biodiversity loss. In addition to reputation, exposure to liabilities is also a risk factor. The OECD is recommending that in case of environmental incidents caused by projects, for instance mining, the provider of the capital should be liable as well.

3 Measures, tools, good practices and initiatives

Measures and good practices for policies, strategies, implementation and assurance (combined)

To assure conservation and sustainable use of biodiversity, policies and practices of the financial sector should include:

- Risk assessment procedures and client diagnostic tools that evaluate the biodiversity impacts of projects and clients operations, both upstream and downstream.
- Exclusion of projects/investments that have negative impacts on protected areas covered by the IUCN I-IV categories, UNESCO World Heritage and the Ramsar Convention.
- Exclusion of any project that a) could have a negative impact on species of the IUCN Red List; b) could lead to the commercial trade of any species listed as endangered under CITES; or c) is likely to involve the introduction of invasive alien species.
- Condition that all international and national biodiversity treaties and laws are respected, such as CBD, CITES, the Cartagena Protocol, the European Habitat and Bird directive, etc.
- Requirement that sustainable practices are applied in fisheries, forestry and agriculture.
- Requirement on transparency of clients and projects in provision of baseline data, ongoing monitoring and reporting of impacts, at least consistent with the guidelines of the Global Reporting Initiative.

In addition to application of the above standards, the sector should develop and increase sustainable financial services/products, such as green investment funds. Banks could also directly invest in biodiversity-relevant projects.

Tools, initiatives

VBDO Biodiversity quick scan for the financial sector: VBDO is the Dutch Association of Investors for Sustainable Development. Since her start in 1995 VBDO has been actively engaging with Dutch listed companies on corporate social responsibility (CSR). VBDO has developed a Biodiversity Quick Scan for the financial sector with the objective to assess the (potential) impacts of the sector on biodiversity and to identify the key risks. The tool is to be used by both the VBDO and the financial enterprises. (www.vbdo.nl)

Equator Principles: The Equator Principles are a voluntary set of guidelines for managing environmental and social issues in project finance lending, developed by leading financial institutions.
They are based on the environmental and social standards of the International Finance Corporation (IFC), the private sector arm of the World Bank, and apply globally and to all sectors. With reference to biodiversity, the banks that have agreed to the Equator Principles are committed to assessing their impacts of their projects on biodiversity. In the revised Principles, the biodiversity relevant issues to be addressed in the Social and Environmental Assessment (Exhibit II) are described as follows:

- Protection and conservation of biodiversity, including endangered species and sensitive ecosystems in modified, natural and critical habitats, and identification of legally protected areas
- Sustainable management and use of renewable natural resources (including sustainable resource management through appropriate independent certification systems)

The Dutch banks ING, Fortis and Rabobank have adopted the Equator Principles.
(www.equator-principles.com)

Katoomba Group: consists of experts from forest and energy industries, research institutions, the financial world, and environmental NGOs dedicated to facilitating partnerships to launch green forest products. It supports environmental service markets and payment schemes around the world and distils and disseminates lessons learned from them. It also conducts research and develops tools that will help to build an understanding of how market-based instruments for environmental services are constructed and the conditions in which they can work. (www.katoombagroup.org)

4 Progress and challenges

Sustainability issues, including biodiversity, have an increasing prominence in the Dutch financing sector. Risk and reputation management are key drivers in this process, and NGOs and other stakeholders keep pressure to improve performance. There is a greater awareness of the need to develop responsible lending and investment policies, and the Equator Principles can be viewed as a catalyst for change. It can be stated that by 2007, most Dutch banks have incorporated sustainability into their policies and strategies, and that the reporting on sustainability is becoming more transparent, also indicating the practical dilemmas. A number of banks, including Rabobank, Fortis and ING, have established sector policies (e.g. forestry, oil & gas, dams, food & agrisector) laying out principles and criteria for client engagements, including environmental ones. Over the last decades, there has been a considerable growth in green investment funds, and ASN and Triodos are leaders in this area. Dutch banks are also involved in carbon credit trades under the Kyoto Protocol Scheme. However, biodiversity remains a complex issue to deal with, both in the policies, strategies, financial operations and in monitoring and reporting. There is need to further work with all stakeholders to adopt and implement new approaches and tools, and to increase transparency.

Glossary

BIOLOGICAL DIVERSITY: (often shortened to Biodiversity): The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species, and of ecosystems (U.N. Convention on Biological Diversity, Article 2).

CONSERVATION: The rational and prudent management of biological resources to achieve the greatest sustainable current benefit while maintaining the potential of the resources to meet the needs of future generations. Conservation includes preservation, maintenance, sustainable utilization, restoration and enhancement of the natural environment.

ECOLOGICAL FOOTPRINT: The area of direct environmental impact of an industrial operation on the land.

ECOSYSTEM: A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit in a specific place.

ECOSYSTEM APPROACH: A strategy for the integrated management of land, water, and living resources that promotes conservation and sustainable use in an equitable way. It recognizes that humans, with their cultural diversity, are an integral component of ecosystems.

ENDANGERED SPECIES: A species facing a very high risk of extinction in the wild in the near future.

ENDEMIC: Native to, and restricted to, a particular geographical region. Highly endemic species, those with very restricted natural ranges, are especially vulnerable to extinction if their natural habitat is eliminated or significantly disturbed.

ENVIRONMENTAL AND SOCIAL IMPACT AS SESSMENT (ESIA): A process for predicting and assessing the potential environmental and social impacts of a proposed project, evaluating alternatives and designing appropriate mitigation, management and monitoring measures.

ENVIRONMENTAL MANAGEMENT SYSTEM (EMS): The system of organizational capacity, plans, procedures, resources, policies and standards used by energy and other companies to manage their environmental programs.

EXTINCTION: An irreversible process whereby a species or distinct biological population forever ceases to exist.

FRAGMENTATION: The breaking up of a habitat, ecosystem or land-use type into smaller, often isolated, parcels, thereby reducing the number of species that the habitat, ecosystem or land-use type can support.

GENES: Elements in all living things that carry hereditary characteristics, which, when expressed, make each individual different from all others.

HABITAT: The physical and biological environment on which a given species depends for its survival; the place or type of site where an organism or population naturally occurs.

INDIGENOUS PEOPLE: No definition of indigenous people has been agreed upon internationally, but the principle of self-identification has been broadly accepted. For purposes of its operations, the World Bank treats as indigenous people "those social groups with a social and cultural identity distinct from the dominant society, which makes them vulnerable to being disadvantaged in the development process." They are distinctive from other vulnerable social groups insofar as they are recognized by international law and by some states as autonomous seats of power within the state, and exercise collective rights as groups.

JOINT VENTURE: A group of companies that share the cost and rewards of a commercial project.

LIFECYCLE (INDUSTRIAL): The entire sequence of activity relating to an industrial operation, from beginning to end.

LAND CONVERSION: Land conversion is the conversion of an area with a certain level of degradation to an area with a higher (negative land conversion) or lower (positive land conversion) level of degradation. Negative land conversion often involves the conversion of a non-productive area into a productive area.

LOCAL COMMUNITY: Any community that is adjacent to and/or impacted by oil and gas development and transmission.

MITIGATION: Measures and actions taken to avoid, minimize, reduce, rectify and/or compensate for the adverse impacts of development.

NATIVE SPECIES: (indigenous species): A species, subspecies or lower taxon living within its natural range (past or present), including the area which it can reach and occupy using its own legs, wings, wind/water-borne or other dispersal systems, even if it is seldom found there.

NATURAL RESOURCES: Resources produced by nature, commonly subdivided into non-renewable resources, such as minerals and fossil fuels, and renewable natural resources that propagate or sustain life and are naturally self-renewing when properly managed, including plants and animals, as well as soil and water.

NON-NATIVE SPECIES: A species, subspecies or lower taxon introduced outside its normal past or present distribution; includes any parts, gametes, seeds, eggs or propagules of such species that might survive and subsequently reproduce.

OVEREXPLOITATION: Overexploitation occurs when harvesting of specimens of flora and fauna species from the wild is out of balance with reproduction patterns and, as a consequence, species may become extinct.

PARTICIPATION: Active involvement in decision-making of those with an interest in or affected by important decisions.

POLLUTION: The contamination of an ecosystem, especially with reference to human activities.

PROTECTED AREA: A geographically defined area that is designated or regulated and managed to achieve specific conservation objectives (U.N. Convention on Biological Diversity, Article 2). An area of land or sea especially dedicated to the protection and maintenance of biological diversity and of natural and associated cultural resources, and managed through legal or other effective means (1992 World Congress on National Parks and Protected Areas).

SPECIES: A group of inter-breeding organisms that seldom or never interbreed with individuals in other such groups, under natural conditions; most species are made up of sub-species or populations.

Glossary

SPECIES RICHNESS: The number of species in a given site.

STAKEHOLDER: An individual or institution that can affect or is affected by an operation. Stakeholders include, but are not limited to, local communities, advocacy groups, development agencies, governments, customers, shareholders, management, employees and suppliers.

SUPPLY CHAIN: The supply chain represents the flow of materials, information, and finances as they move from supplier to manufacturer to wholesaler to retailer to consumer. The supply chain begins with the processing of raw materials, continuing with production of perhaps a series of intermediate inputs, and ending with final assembly and distribution. The value of biodiversity and the extent to which biodiversity is impacted depend on the activities taking place in a particular supply chain. For example, the processing of fruits and vegetables is likely more interconnected with biodiversity than the processing of glass jars.

SUSTAINABLE DEVELOPMENT: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

WETLANDS: Transitional areas between terrestrial and aquatic systems in which the water table is usually at or near the surface or the land is covered by shallow water. Under the Ramsar Convention, wetlands can include tidal mudflats, natural ponds, marshes, potholes, wet meadows, bogs, peatlands, freshwater swamps, mangroves, lakes, rivers and even some coral reefs.

WILDLIFE: Living things that are neither human nor domesticated.