



Are you a green leader?

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Business and biodiversity:
making the case for
a lasting solution

Do you want to be... a company that responds to change?



Is your company one that responds to change, contributes to a better world – an innovator, a socially and environmentally responsible leader?

Does your company tread lightly on our world’s resources, ensuring they are available for current and future generations?

Can your company play a role in addressing one of the greatest threats posed to society: the loss of biodiversity and degradation of ecosystem services – our life support system?

Why now?

There is a need to act now!

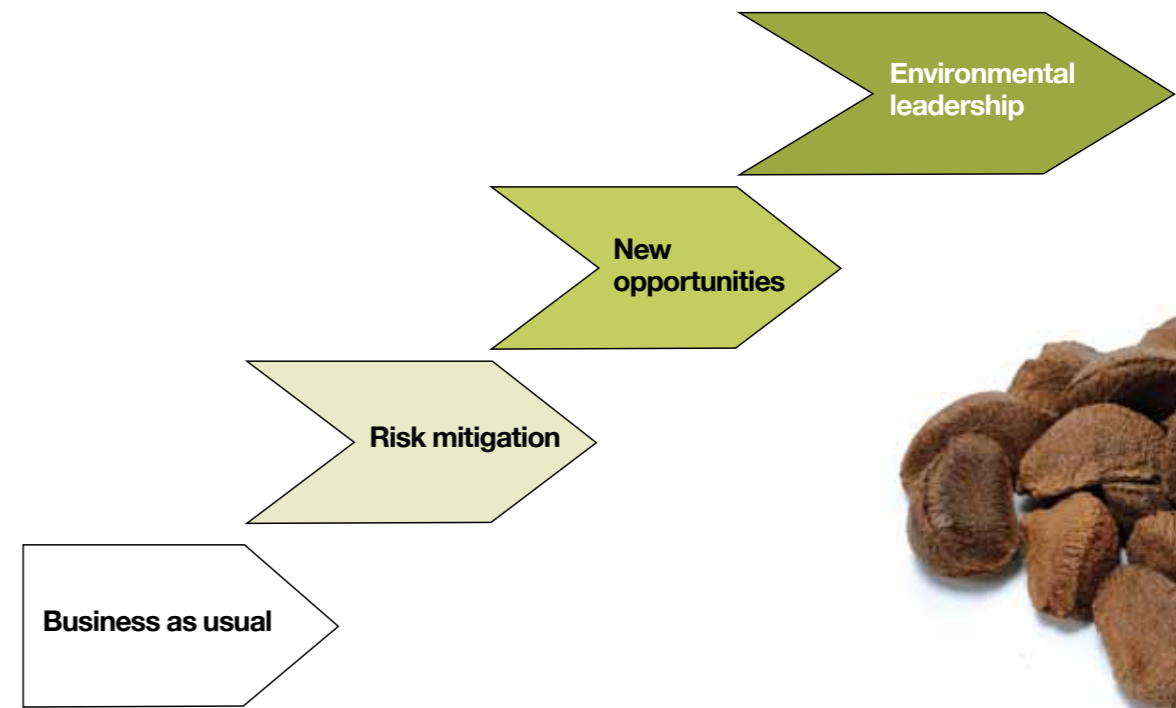
→ 2010 is the International Year of Biodiversity.

→ We are faced with unprecedented pressures on biodiversity and the ecosystem services it provides.

→ Damage to biodiversity costs the global economy an estimated US\$500 billion per year or more.

This brochure sets out how companies can be part of the solution, and can take steps that benefit their business while contributing to our future survival on the planet.

Managing biodiversity can help mitigate risk, identify new business opportunities and enable your company to become an environmental leader.



→ Fortunately, we also have an unprecedented opportunity for action. Business is more engaged and aware than ever before.

→ The understanding of how a business impacts on biodiversity is increasing.

→ Many companies are taking steps to identify and minimize their impacts on biodiversity and ecosystems often with tangible financial benefits.

Questions to ask yourself

Q: Do you use raw materials such as timber, fish, cotton, crops, plants, or their derivatives?

Q: Do you or your suppliers have significant holdings of land?

Q: Do you rely on a supply of clean water for your operations?

Q: Are you reliant on natural defences such as mangroves, coral reefs or coastal marshes to protect infrastructure or land?

Q: Do your consumers have a preference for sustainably-produced goods?

Q: Do your investors demand proof of socially responsible and ethical activities?

If we all continue to compromise our life support system, your business could be under threat.



The way your company manages and acts on biodiversity can affect:

1 Supply of resources

Natural resources form the basis of a range of commercial products including food, paper, textiles, colorants, fabrics etc., and the services provided by ecosystems, such as water and nutrient cycling, are essential to many production and processing operations. The continued supply of these products and services depends not only on sustainable use of species or utilised ecosystem services, but the careful management of the entire ecosystems upon which they depend.

2 Access to markets

Increasingly, consumers are showing preferences for products created using sustainably and ethically sourced materials and methods. The demand for environmentally-friendly paper now means that 5% of the world's productive forests are covered by the FSC scheme, with an estimated value of US\$20 billion.

3 Brand and reputation

The information age is allowing consumers around the globe to be informed of the activities of companies in the remotest of areas. Bad publicity can shake shareholder's confidence and affect profitability.

4 Licence to operate

Access to land and other resources are increasingly affected by a company's environmental track record. By adopting best practices on biodiversity and environmental and social issues a company is more likely to obtain and maintain a legal licence to operate.

5 Access to finance

Financial institutions, in line with the Equator Principles and other directives, are making more demands on businesses to operate within suitable guidelines to minimize their impact on the environment, including preventing biodiversity loss.

Biodiversity is disappearing at a rate of up to 1,000 times the natural rate, and systems are functioning less and less effectively:

01 Fact

The economic cost of biodiversity loss and ecosystem degradation to the world economy is estimated to be between US\$2 and 4.5 trillion. This figure is expected to rise.

02 Fact

Approximately 60% of ecosystem services have been degraded or used unsustainably. These include provisioning (food, fibre) and regulating (climate, flood, water purification, etc.) services.

03 Fact

Around 50 countries face moderate or severe water stress and many major aquifers are becoming depleted or polluted. It is estimated that, by 2030, world water scarcity could cut agricultural harvests by 30%.

04 Fact

The Indonesian coffee crop is under threat as pollination rates are dropping as the forest shrinks. This has led to a decrease in coffee yields in some areas by 18%.

05 Fact

In response to claims showing how the cattle industry was impacting the Amazon rainforest, the World Bank suspended a US\$30 million loan to Brazilian companies.

06 Fact

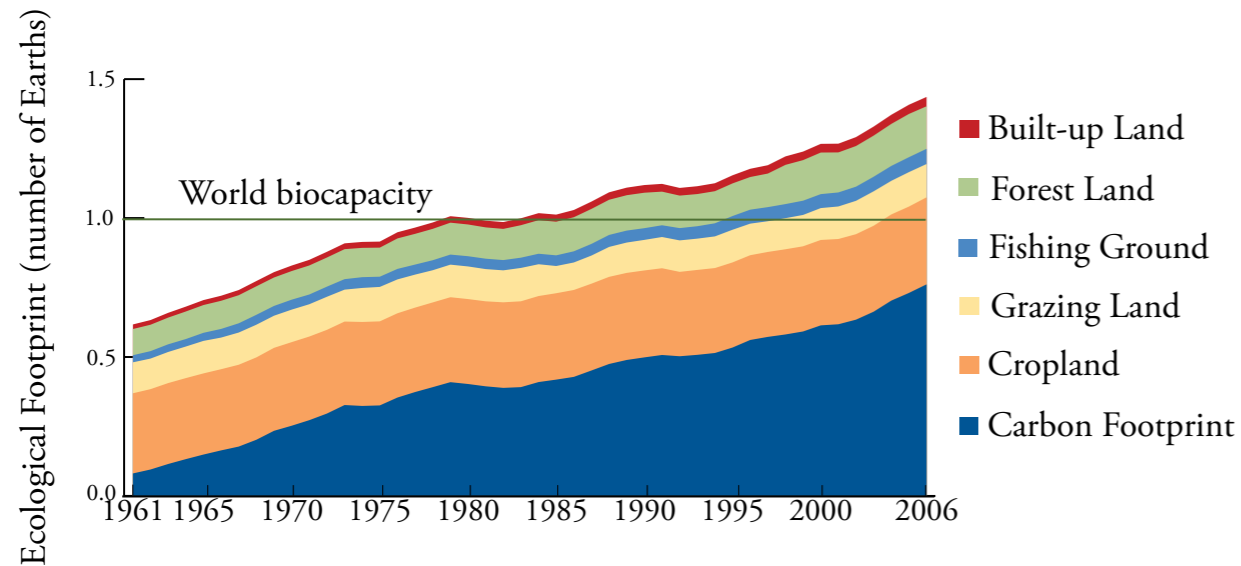
The cost of environmental degradation related to water loss in the Middle East and North Africa has been estimated at some US\$9 billion a year.

07 Fact

Coral reefs are in danger of dying out in the next 20 years, despite their value being estimated as providing services worth up to US\$189,000 per hectare per year for natural hazard management.

Are you a green leader?

Time to act: Human impact on planet Earth has exceeded sustainable limits



Humanity's Ecological Footprint, 1961-2006

This graph shows the alarming rate at which human impact on the planet is increasing and going beyond sustainable limits. The green line 'world biocapacity' shows the biologically productive area that is available to meet humanity's needs.

The coloured bars show the increasing human footprint, in terms of area required for different purposes (eg cropland).

It shows that since the 1980s our needs have exceeded the

Earth's regenerative capacity. Biodiversity is severely threatened when the planet's biocapacity cannot keep pace with human consumption and waste generation.

Biodiversity comprises a series of balanced ecosystems that provide human beings with all the essential elements of life that include raw materials like wood, water, fish and medicinal compounds. Less visible are processes, known as 'ecosystem services' such as pollination, soil formation or climate regulation. These

provide us with a stable environment in which to live and do business.

Human activities over the past 50 years to meet rapidly growing demands for food, fresh water, timber, fibre and fuel, have extensively changed ecosystems and led to a loss of these services upon which both society and industry depend.

We all need to act, in order to build sustainable business models that address biodiversity.

Source: Global Footprint Network. The Ecological Footprint forms part of the 2010 Biodiversity Indicators Partnership (www.twentyten.net), a global initiative to communicate trends in biodiversity and assess progress towards the CBD 2010 target.

✓ Market opportunities

Markets for sustainably and ethically sourced and produced materials, food and other products are rapidly growing. For example, the global market for organic products reached a value of US\$33.8 billion in 2005, and the potential size of markets for sustainable agricultural and fisheries products is estimated to reach US\$200,000 million by 2050.



✓ Brand advantage

Being an environmental leader can put you ahead of the game, and help differentiate your brand and attract new business. Companies that appeared on the Dow Jones Sustainability Index emerged in a stronger position from the recent financial crisis than their industry peers. It seems that investors reward those companies with long-term investment and robust environmental risk management.



Managing biodiversity not only protects your business, but creates opportunities



✓ New business ideas

Sizeable markets and investment opportunities are developing for offsetting programmes to mitigate unavoidable impacts. These include wetland mitigation banks that are set up by restoring or creating wetland habitats, and conservation banks that are set up by protecting land that contains threatened species. Restoring and protecting important ecosystems now create lucrative business opportunities.



✓ New technologies

The challenge to build a green economy and address environmental threats while responding to the growing demands of an increasing human population, creates opportunities for new technologies. Green technologies related to water desalination and purification, waste management and recycling, as well as sustainable agriculture have business potential.

A critical interdependence

All of the world's businesses, whether directly or indirectly, need biodiversity and ecosystem services to function. This table shows examples of how a selection of sectors impact biodiversity, and the associated risks and opportunities.

Whatever your industry:

- 1 You will be making an impact on biodiversity
- 2 Where this impact is negative, this is likely to cause risk to your business
- 3 There are a growing number of opportunities where both biodiversity and your business can benefit

	Industry trends	Impacts and dependence	Risks and opportunities
Energy	Around 80 to 90% of total worldwide energy is currently derived from the combustion of fossil fuels, with the remainder from nuclear energy and renewable sources that include biomass, hydro-, wind and solar power. In 2008, renewable energy supplied around 7% of the world's energy consumption, but this sector is experiencing considerable growth. Between 2004 and 2008, global production of ethanol more than doubled, and biodiesel increased six-fold.	Climate change: CO ₂ released from the burning of fossil fuels in all industries accounts for 57% of greenhouse gas emissions. Habitat loss and degradation: Biofuel production can cause a loss of important natural habitats for biodiversity, and hydropower can have severe impacts on both aquatic and terrestrial biodiversity through reservoir inundation, flow manipulation and river fragmentation.	Regulatory risk: Increasing requirements for redress through the EU Liability directive, in some countries such as Brazil or the USA a requirement to offset or compensate for impacts. License to operate: Strong relationships with regulators can result in acquiring an agreement to operate more rapidly.
Fisheries	Declining fish populations have caused a shift to fishing in deeper waters and for previously unexploited fish species as traditional stocks decline. Aquaculture now accounts for 47% of the world's fish food supply and is growing. Changes in dietary patterns have increased demand for fish; this will continue to increase with a rising human population.	Dependence: The productivity of wild fisheries is dependent on the health of marine and freshwater ecosystems, as well as the diversity of species available for capture. Over exploitation: As many as 90% of the ocean's large fish have been fished out, and 28% of the world's commercial marine fisheries are overexploited, depleted, or recovering from depletion. Loss of important habitats and services: Loss of mangroves through clearing for shrimp farms can cause loss of natural defences from storms and a loss of fish nurseries.	Market access: Markets for fish may become increasingly restricted as many major supermarkets have made commitments to sustainably source fish.
Cosmetics	At present, most cosmetic products are made using ingredients derived from petrochemicals. However, growing consumer concern about synthetic chemicals has seen the natural and organic sector emerging as the fastest-growing cosmetics sector over the past few years.	Dependence: The natural and organic sector of the cosmetics industry is dependent on biodiversity for continued supplies of plant-derived ingredients. Over exploitation: Over-harvesting of wild species as sources of raw materials presents a threat to these species. Examples include a sandalwood species in Indonesia (<i>Santalum album</i>), and rosewood in Brazil (<i>Aniba rosaeodora</i>), which are harvested to produce oils used in perfume.	New markets: Growing consumer preference for natural cosmetic products is creating market opportunities for products certified as organic, natural and sustainably produced. Company image: A large majority of consumers of cosmetic products would be willing to stop buying products from cosmetics companies that are not materially committed to ethical sourcing of biodiversity.
Mining	Mining activities continue to expand into sites that are ecologically valuable where the potential for significant negative impacts and associated risks is greater. Much development is in developing countries where environmental regulatory controls and associated governance processes may be weak.	Land conversion: Open cast mining or the development of roads that open up previously inaccessible areas alter the geography and historical use of land. Pollution: Large quantities of solid waste (tailings) are often produced in the processing of metal ores, where the target metal is usually present at a low concentration. The storage of this waste can damage or destroy underlying habitats and geological features.	Regulatory risk: Increasing requirements for redress through the EU Liability directive, in some countries such as Brazil or the USA a requirement to offset or compensate for impacts. License to operate: Strong relationships with regulators can result in more quickly obtaining agreement to mine.
Tourism	The number of international travellers has been forecast to reach over 1.5 billion globally by 2020. Tourism will become increasingly important in developing countries hosting biodiversity hotspots, particularly those in Southeast Asia. Significant percentage of new tourism facilities likely to be built in areas of high biodiversity where strong legal and regulatory frameworks for biodiversity conservation are often lacking.	Dependence: Strong dependence on biodiversity and ecosystem services to, for example, control disease and natural hazards, purify water and regulate climate. Land conversion: Loss of natural habitat from construction of hotels/golf courses etc (both from land occupied and construction materials) Climate change: Tourism is responsible for around 5% of anthropogenic greenhouse gas emissions, particularly from aviation.	Brand differentiation: Securing new customers through strong environmental credentials. New revenue streams: Nature-based tourism is now a major component of export income in many countries. Ecotourism is around 7% of the market.

Want to make a start?

While different industries face different challenges in mainstreaming biodiversity into business policies and practices, there are now a wide range of initiatives being developed across all business sectors to address biodiversity and harness the opportunities this can present:

1. Assess your own impacts and dependencies on biodiversity and ecosystem services using available guidance materials.
2. Survey available best practice within your industry.
3. Establish a vision and strategy to address biodiversity.
4. Consider how your company's specific skills, expertise and influence can be mobilized to create change.
5. Form alliances with experts and industry peers.
6. Support wider efforts to value and conserve biodiversity and ecosystem services.

Lead the way!

Adopt strong biodiversity commitments and mainstream actions that directly reduce negative impacts and enhance biodiversity and ecosystem services. *(See sources of help on page 12 overleaf).*

What companies are doing already



Beverages

Bavaria, a subsidiary of SABMiller, a global brewer, is working with partners including The Nature Conservancy in Colombia to protect the basin that provides water to Bogotá. The basin is being deforested with more sediment being washed into the rivers that supply the city with water. This in turn means higher costs for the water company and ultimately its customers, such as Bavaria.

Finance

The bank J.P.Morgan Chase is committed to adopting policies to protect the highest conservation values in forests. It says it will finance plantations only on non-forested areas (including previously planted areas) or on heavily degraded forestland. This process



includes scientific assessment of species, cultural assessment, and conservation plans to protect species or cultural sites that are unique, rare, threatened or endangered.



Food

Unilever has recognised its dependence on biodiversity: "Human activity can reduce biodiversity through over-exploitation of natural resources. This is an issue for Unilever. Agriculture provides more than two-thirds of the raw materials for our branded goods. We are among the world's largest users of raw materials such as tea, vegetables and vegetable oils."

Mining

Rio Tinto, a mining and exploration company, has made a leading commitment to biodiversity conservation through its 'net positive impact' goal. This means it aims to ensure that biodiversity and its conservation ultimately benefit from its presence in a region.



Join other businesses in improving your profits, and future-proofing your business.

Organisations and initiatives that can help

	An overview	Company actions	Industry actions
Energy	Board level policies, good practice guidance, including impact assessment.	Shell's commitment not to explore or develop in World Heritage Sites. BC Hydro's, a Canadian electric power utility, commitment to a long-term goal of no net incremental environmental impact.	International Petroleum Industry Environmental Conservation Association and The Energy and Biodiversity Initiative have developed a range of guidance material on biodiversity for the oil and gas industry. The Roundtable on Sustainable Biofuels is looking to the integration of biodiversity into biofuels production.
Finance	Overarching frameworks, principles and tools for responsible investment have been developed that are relevant for biodiversity, as well as performance standards for project screening and tools to enable risk and opportunity assessment by asset managers.	The International Finance Corporation's (IFC) set of Performance Standards. HSBC specific standards for lending to or investing in companies or projects, and its commitment not to finance new operations in World Heritage Sites and in wetlands on the Ramsar List.	The Equator Principles sets out specific requirements on biodiversity for project finance. UNEP Finance Initiative's <i>Biodiversity and Ecosystem Services - Bloom or Bust?</i> report is a good overview of the relevance of biodiversity and ecosystem services to the finance sector. The Natural Value Initiative's Ecosystem Services Benchmark provides a tool for investors to evaluate corporate management of biodiversity and ecosystem services. The Forest Footprint Disclosure Project helps investors identify how an organisation's activities and supply chain contribute to tropical deforestation, and link this 'forest footprint' to their company's value. Several initiatives are encouraging financing of biodiversity based businesses e.g. New Ventures Programme, Eco Enterprise Fund and RSPB's EBRD funded Pro-biodiversity business project.
Fisheries	Strong legislative approach and a number of certification schemes.	Walmart's major shrimp supplier, Rubicon Resources LLC, bought and upgraded approximately 150 Thai shrimp farms to ensure security of supply in response to environmental concerns including concerns regarding loss of mangroves.	Relevant standards and certification schemes include Global Aquaculture Alliance's Best Aquaculture Practices certification standards, the Marine Stewardship Council's certification requirements and those being developed by the Aquaculture Dialogue roundtables. The FAO has also produced guidelines for the eco-labelling of fish and fishery products from marine capture fisheries.
Cosmetics	The majority of work directly relating to biodiversity within the cosmetics industry relates to natural ingredient sourcing and access and benefit sharing, with some work also on reducing the environmental impact of manufacturing processes and packaging.	L'Oreal's measures to identify biodiversity issues in its supply chain and action plans for endangered species in order to minimize the company's negative impact. Natura Cosméticos' product line based on natural ingredients.	PhytoTrade Africa, a regional trade association in Southern Africa, has developed a charter that includes specific actions for biodiversity conservation and access and benefit-sharing. The France-based Cosmetics Valley industry group has recently released an eco-responsibility charter that includes general commitments to biodiversity protection and improved environmental performance of manufacturing operations. A number of certification schemes and associated standards have been, or are in the process of being, developed for natural and/or organic cosmetics. Examples include the Ethical and Environmental Certification institute, the Natural Products Association seal, and the Organic and Sustainable Industry Standards.
Mining	Some well developed guidelines, principles and tools, but poor linkage with consumers often impedes certification schemes.	Rio Tinto's commitment to net positive impact on biodiversity.	The International Council on Mining and Metals has produced a good practice guide and along with the Responsible Jewellery Council it has made a commitment not to mine in World Heritage Sites. The Integrated Biodiversity Assessment Tool from Conservation International, Birdlife International, IUCN and UNEP-WCMC provides information on the location of important areas for biodiversity which can be used during due diligence and exploration. Various industry groups, including the World Gold Council, have made broad policy statements on, or set broad objectives for, environmentally sound mining operations.
Tourism	A wide range of principles, guidelines and certification schemes aimed at reducing the impact of the tourism industry. Guidance has been produced for operations in polar regions, the marine environment and other vulnerable ecosystems.	Swiss tour operator, Hotelplan, has established an ecofund in which a small percentage of booking fees are used to support sustainable tourism projects and environmental efforts by partners at Hotelplan destinations. Such schemes improve both a company's international image as well as their local relations.	The World Tourism Organization's Global Code of Ethics for Tourism includes principles related to biodiversity. The Global Partnership for Sustainable Tourism Criteria (GSTC Partnership) also includes several biodiversity requirements. A number of certification schemes exist that are relevant to this issue e.g. Canada's Green Leaf Eco-Rating Programme, the Audubon Green Leaf™ Eco-Rating Program in the US, Australia's ECO Certification scheme, and the Costa Rica Certificate for Sustainable Tourism program. Guidance has been produced on tourism in deserts, mountains and marine areas produced by the Tour Operators Initiative. The Biodiversity and Tourism Network is a further source of guidance. IUCN has produced a guide to sustainable use of biological resources for hotels.

Will you be a **green leader**?

This brochure is a summary of a longer publication that reviews the business case for biodiversity; provides an overview of impacts by sector; and highlights practical business and biodiversity initiatives.

This publication was a background document developed for the Biodiversity and Business conference organized by UNEP and the Secretariat of the Convention of Biological Diversity, hosted by the Government of Indonesia in 2009. The conference combined UNEP's 2009 Business and Industry Global Dialogue and the CBD Secretariat's Third Business and the 2010 Biodiversity Challenge Conference. (For more see www.cbd.int/business).

The longer publication covers eleven sectors – **mining, energy, agrifood, fisheries, construction, forestry, tourism, pharmaceuticals, cosmetics, fashion and finance.** It can be downloaded at www.unep.fr/scp/business.

We are at the start of a new wave of business thinking.

We invite **you** to be a part of **this new wave.**

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Find out more in the
full publication:
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