



Business and the
biodiversity
challenge:
A study of actions
among the
Fortune Global 50
companies

The biodiversity challenge

Healthy ecosystems provide a wide array of services that businesses are critically dependent on: water filtration, crop pollination, food and timber production, and control of diseases and pests, to name a few. Indeed, no businesses could operate without ecosystem services. But many ecosystem services are in decline because of biodiversity losses,¹ including losses caused by the impacts of business activities.

As shown in Table 1, all industry sectors are dependent on and have impacts on ecosystem services. One recent study indicated that between US\$2 trillion and US\$4.5 trillion

worth of natural capital is destroyed each year as a result of urban development, land change, resource consumption, pollution, and climate change.²

How are companies responding to the challenge of biodiversity loss, which is a fundamental threat to business and to society? And how are companies communicating publicly about their actions and commitments on biodiversity?

To address these questions, Deloitte Touche Tohmatsu Limited and Deloitte France conducted a study on biodiversity and ecosystems management among the top 50 companies in the *Fortune* Global 500 list for 2011.³ The study considered

Table 1: Links between industry sectors and ecosystem values⁴

Key Ecosystem Service	Biodiversity dependent sectors		Large "footprint" industries		Manufacturing, processing		Financial services	
	Fishing, agriculture, forestry, etc.		Oil & gas, mining, construction, etc.		Industrial, automotive, consumer, technology, etc.		Banking, insurance, etc.	
	Dependency	Impact	Dependency	Impact	Dependency	Impact	Dependency	Impact
Provisioning								
Food	●●	●	●○	●	●●	●	●●	●
Timber & fiber	●●	●	●●	●	●●	●	●●	●
Fresh water	●●	●	●●	●	●●	●	●●	●
Genetic/pharma resources	●	●	○	○	●	●	●	●
Regulating								
Climate & air quality regulation	●	●	●	●	●	●	●	●
Water regulation & purification	●	●	—	○	○	○	●	●
Natural hazard regulation	●	●	●	○	●	○	●	●
Cultural								
Recreation & tourism	—	●	—	●	—	○	●	●
Aesthetic/non-use values	—	●	—	●	—	○	○	●
Spiritual values	—	●	—	●	—	○	○	●

Note: "Supporting Services" are not included in this table for they are already captured within provisioning, regulating, and cultural services.

● Moderate to major relevance ○ Minor relevance — No relevance (typically)

1. According to the Millennium Ecosystem Assessment (2005), approximately 60 to 70 percent of the world's ecosystem functions are degrading faster than they can recover.

2. TEEB. 2009. *The Economics of Ecosystems and Biodiversity for National and International Policy Makers*.

3. The entire list is available online at http://money.cnn.com/magazines/fortune/global500/2011/full_list.

4. Adapted from WBCSD, 2011, *Guide to Corporate Ecosystem Valuation*.

companies' actions to protect biodiversity (flora and fauna in their ecosystems) but not actions related to individual resources such as water.

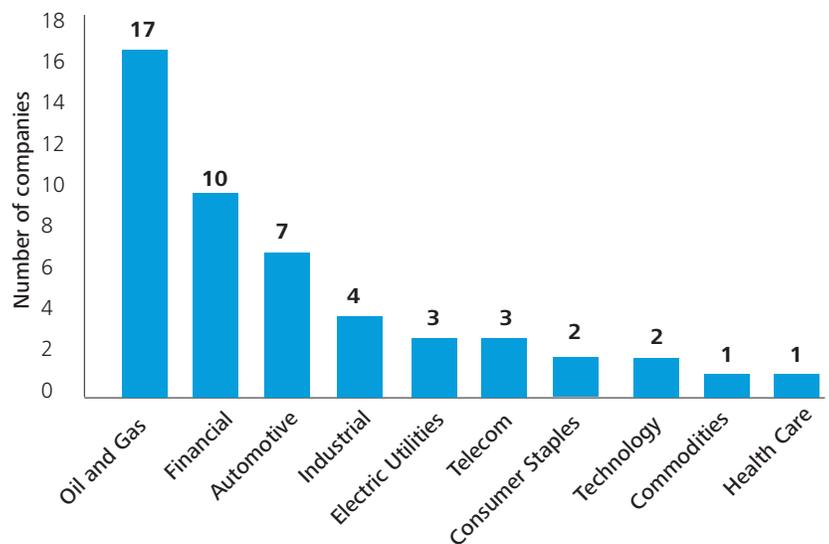
Study results suggest that a large majority of the *Fortune* Global 50 companies are communicating publicly about how they manage impacts on biodiversity. Most of the 50 companies report they are taking action to manage biodiversity impacts, though the scope of these actions varies considerably. The oil & gas companies on the list report more extensive practices in biodiversity management, for this specific sector has a relatively high impact on biodiversity.

Study approach and findings

The study examined recent public communications by the *Fortune* Global 50 – including their CSR or sustainability reports, annual reports, websites, and press releases – about their efforts to manage biodiversity impacts. No direct interviews with the companies were conducted, nor was a survey questionnaire distributed for companies to respond to.

Nearly one-third of the *Fortune* Global 50 companies are in the oil & gas sector. The other companies are broadly distributed across other sectors. To provide a clearer picture, findings from the study are presented in three ways: for the complete list of 50 companies, for the oil & gas companies only, and for the companies outside the oil & gas sector.

Figure 1: Distribution of industries in *Fortune* Global 50 list

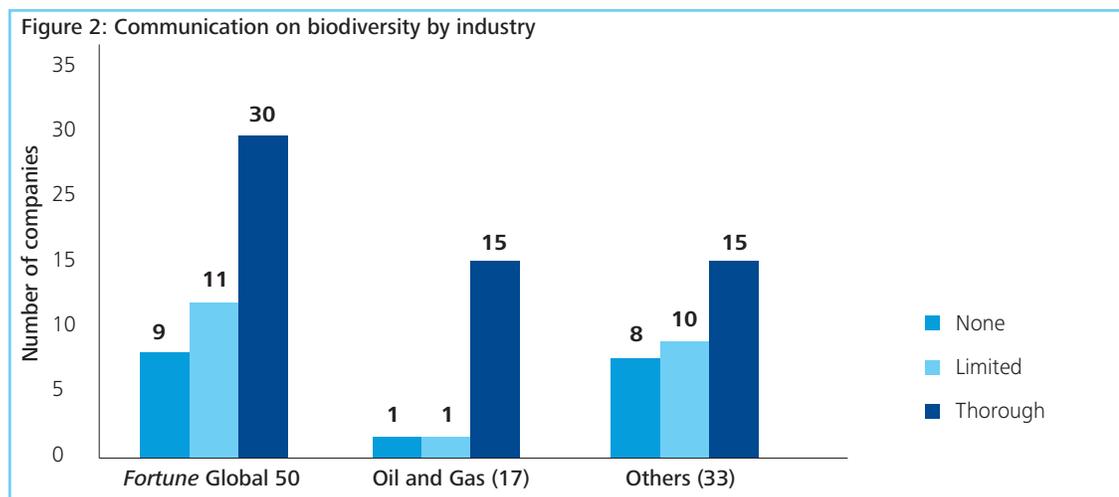


Communications on biodiversity

More than 80 percent of companies in the *Fortune* Global 50 are communicating publicly about their biodiversity management efforts, either thoroughly or to a limited extent. Each company’s external communications were subjectively assessed on the following scale:

- None – The company’s public communications do not address biodiversity issues
- Limited – The company makes a general public statement acknowledging the importance of biodiversity but does not describe its management programs, policies, or performance in detail
- Thorough – The company publicly discloses specific information about how it manages biodiversity impacts. Such information might include management protocols, performance indicators, or conservation groups that the company works with

Among the *Fortune* Global 50, oil & gas companies are ahead of other sectors in their communications about biodiversity. Oil & gas companies are overwhelmingly at the Thorough communication level (15 of 17 companies). Outside the oil & gas sector, 3 out of 4 companies provide some communication (Limited or Thorough), and nearly half are at the Thorough level.



Developments in Natural Capital accounting at Rio+20

Rio+20, the United Nations Conference on Sustainable Development held in Rio de Janeiro during June 2012, provided a venue for various developments favoring the creation and adoption of more refined methods for accounting for biodiversity and ecosystems. Some businesses and governments signed a Natural Capital Declaration⁵ calling for uniform approaches to valuing and accounting for natural capital. This backed up calls from companies that have endorsed the Natural Capital Leadership Compact⁶ and the Valuing Natural Capital Initiative⁷ and from the 50-plus countries that belong to the Wealth Accounting and Valuation of Ecosystem Services (WAVES) initiative.⁸

5. Natural Capital Declaration, “Natural Capital Declaration signatories join governments and corporations with call for accounting natural capital” (press release), 20 June 2012.

6. More information is available online at <http://www.cpsl.cam.ac.uk/Leaders-Groups/Cambridge-Natural-Capital-Leaders-Platform/Natural-Capital-Leadership-Compact.aspx>.

7. More information is available online at <http://www.corporateecoforum.com/valuingnaturalcapital/offline/download.pdf>.

8. More information is available online at <http://www.wavespartnership.org>.

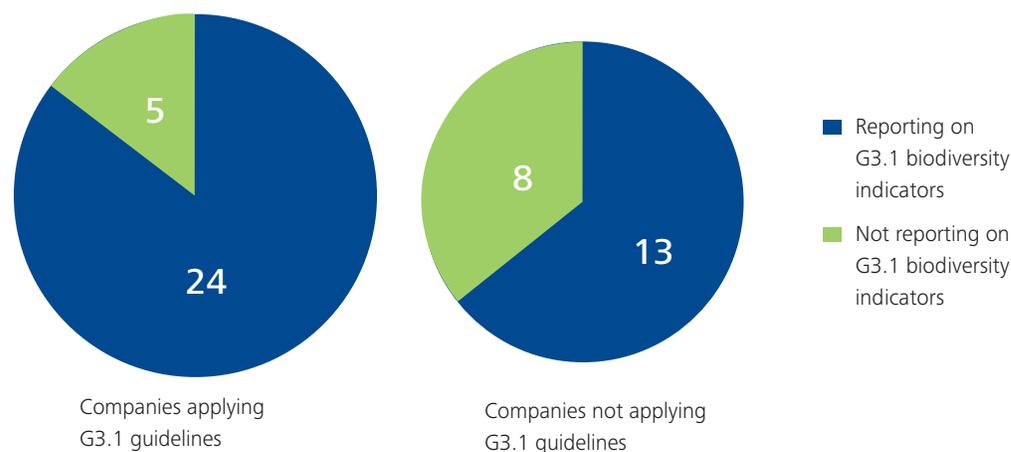
Biodiversity performance indicators

The *Fortune* Global 50 companies report a diverse array of performance indicators on biodiversity. This is true even for companies that report against the Global Reporting Initiative's (GRI) G3.1 Sustainability Reporting Guidelines, which specify five biodiversity-related indicators. Accordingly, analysts may find it difficult to compare progress and effectiveness among companies.

Twenty-nine of the *Fortune* Global 50 companies apply the G3.1 guidelines to their external reports. For five of these 29 companies, no information was found that related directly to the topics of the G3.1 biodiversity indicators. EN13 is the most commonly reported G3.1 indicator on biodiversity (19 companies). EN11 is reported by fewer companies (16), even though it seems to be relatively easy to prepare.

Although 21 companies do not apply the G3.1 guidelines, thirteen of them include information in their public communications that relates to the biodiversity indicators in the G3.1 guidelines.

Figure 3: Reporting on the GRI G3.1 biodiversity indicators



GRI G3.1 indicators on biodiversity

The GRI's G3.1 Sustainability Reporting Guidelines include two core indicators on biodiversity risks and impacts linked to a company's activities:

- EN11: Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas
- EN12: Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas

The GRI G3.1 guidelines also contain three biodiversity indicators that the GRI considers additional, in that they address emerging topics or topics that might not be relevant to some organizations:

- EN13: Habitats protected or restored
- EN14: Strategies, current actions, and future plans for managing impacts on biodiversity
- EN15: Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk

Extent of reported biodiversity actions

According to their public communications, the *Fortune* Global 50 companies have largely begun to address biodiversity concerns. More than half of the companies report some actions to manage their biodiversity impacts. Twenty percent of the companies (10 of 50) report no activities related to biodiversity.

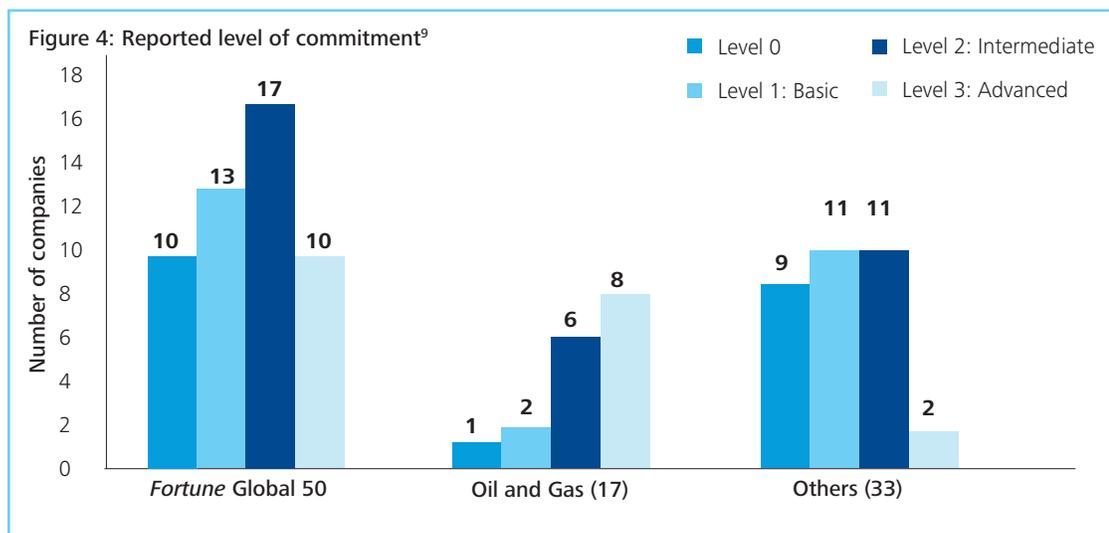
These findings were prepared through analysis of the extent of the companies' public reports and communications on efforts to manage biodiversity impacts. Each company's actions were subjectively categorized on a four-level range:

- Level 0 – No reported biodiversity program or efforts
- Level 1 (basic) – General efforts to conserve biodiversity, unrelated to the business's own specific impacts, generally through partnerships or sponsorships
- Level 2 (intermediate) – Reduction of impacts on biodiversity by the business, through programs at individual facilities or operations but not evidently coordinated or directed at the corporate level
- Level 3 (advanced) – Strategic approach, commitments, and management of biodiversity, characterized by corporate-level instruments such as a biodiversity policy, a framework for assessing impacts and risks, and company-wide performance indicators

As with public communications on biodiversity, oil & gas companies generally have more extensive management programs than companies in the other sectors that were studied. Fourteen of the 17 oil & gas companies externally communicate about their actions to manage biodiversity impacts at individual sites or across the business (Level 2 or 3).

Companies outside the oil & gas sector were less likely to describe efforts to manage their impacts on biodiversity. About 40 percent of these companies (13 of 33) externally reported some management actions (Level 2 or 3), and a slightly smaller proportion (11 of 33) publicly reported general efforts to conserve biodiversity (Level 1).

Nearly one in four companies outside the oil & gas sector externally reported no specific biodiversity efforts (Level 0). This is notably different from the oil & gas sector, in which only 1 of 17 companies publicly reported no such efforts.



9. Some companies' efforts consisted mainly of limited tree plantations. These were considered to be at a Level 0 of commitment.

Recommended actions for business

Biodiversity losses are threatening businesses through the rapid decline of ecosystem services. This creates dual imperatives for businesses to reduce their dependency on ecosystem services and to eliminate – and, if possible, reverse – their impacts on biodiversity. The following approach is suggested for companies to consider as part of their efforts to help conserve biodiversity and to protect ecosystem services, which are essential to business and society.

1. Assess the business's dependence on biodiversity and ecosystem services – Careful analysis of business operations with regard to ecosystem services can help to identify the services that are most important to a company. NGOs and scientific researchers have created various tools to assist with such analysis (see the References section at the end of this paper for suggestions).
2. Evaluate impact on biodiversity – This step will help a company to identify other risks beyond its dependencies. It should involve the design of performance indicators to gauge its impacts and chart progress against targets going into the future.
3. Formalize a strategy for biodiversity conservation – A long-term plan and goals should be set for conserving biodiversity and securing ecosystem services. This requires a company to determine which actions it can take (e.g. changes to operations) and which actions outside groups should help with, particularly conservation groups.
4. Engage internal and external stakeholders – In this step, the business cascades its biodiversity strategy through business lines and into sites. Responsibilities need to be established within the company and, if appropriate, assigned to outside organizations.
5. Public communications and performance reporting – Measuring and reporting performance on biodiversity and ecosystems creates the organizational discipline to follow through on the strategic plan. Balanced, forthright performance reporting can also help build credibility and trust with key stakeholders.

Leading practices from the oil & gas industry

Oil & gas companies in the *Fortune* Global 50 exhibited more advanced practices for managing impacts on biodiversity and ecosystems than companies studied in other sectors. These include:

- Analysis of impacts and risks
 - Corporate-level analysis of impacts from operations
 - Screening of operating sites against databases of the International Union for Conservation of Nature (IUCN) and World Protected Areas
 - Biomapping applications of their site locations
 - Assessment of biodiversity risk using improved tools
- Mitigation/reduction of impacts
 - Engagement with NGOs on conservation projects in key countries and near sites
 - Active land management to benefit wildlife
 - Environmental management plans
- Reversal of impacts
 - Use of biodiversity offsets to conserve land in particularly sensitive locations and promote local stewardship of biodiversity
 - Employee and other volunteer programs to re-establish local biodiversity

References on biodiversity management and reporting

- Corporate Ecosystem Services Review – The World Resources Institute has developed this methodology, in cooperation with the World Business Council for Sustainable Development (WBCSD) and the Meridian Institute, to help businesses assess the risks and opportunities associated with effectively managing ecosystem services. (<http://www.wri.org/project/ecosystem-services-review>)
- Corporate Ecosystem Valuation – This tool from the WBCSD provides a framework for improving corporate decision-making through valuing ecosystem services. (<http://www.wbcd.org/work-program/ecosystems/cev.aspx>)
- Natural Capital Project – This is a venture led by Stanford University, the University of Minnesota, the Nature Conservancy, and the WWF that aims to transform traditional conservation methods by including the value of “ecosystem services” in business, community, and government decisions. The project is developing tools for quantifying the values of natural capital in clear, credible, and practical ways. (<http://www.naturalcapitalproject.org/toolbox.html>)
- InVest – InVEST is a family of free tools for mapping and valuing ecosystem goods and services. It is designed to help decision-makers assess the trade-offs associated with alternative choices and to identify areas where investment in natural capital can enhance human development and conservation in terrestrial, freshwater, and marine ecosystems. (<http://www.naturalcapitalproject.org/InVEST.html>)
- Global Reporting Initiative’s G3.1 Sustainability Reporting Guidelines – The G3.1 guidelines include five biodiversity disclosures (<https://www.globalreporting.org/reporting/latest-guidelines/g3-1-guidelines/Pages/default.aspx>). In addition, the GRI’s Sector Supplements, particularly for Food Processing and Mining and Metals, include additional biodiversity disclosures that are relevant to those sectors (<https://www.globalreporting.org/reporting/sector-guidance/Pages/default.aspx>).
- Integrated Reporting – The International Integrated Reporting Council is taking a lead role in defining principles for integrated reporting (i.e., reporting on a wide range of factors, including non-financial factors, that affect corporate performance). The IIRC’s Discussion Paper (<http://www.theiirc.org/resources-2/discussion-paper/>) defines six types of “capital” that organizations depend on – one of which is “natural capital,” which includes natural resources, biodiversity, and ecosystems. Other integrated reporting resources can be found at <http://www.theiirc.org/resources-2/>.

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