

Biodiversity and ecosystem services: the business case for managing risk and creating opportunity

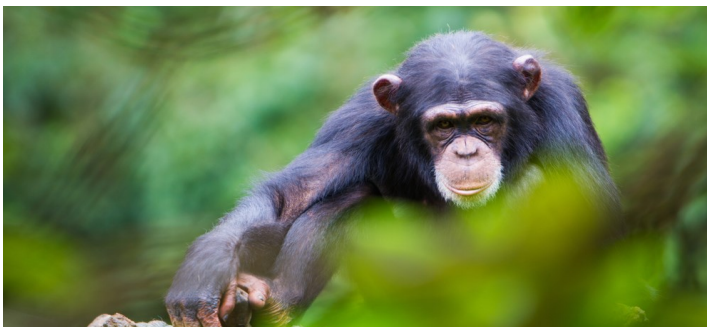
Business implications and relevance

- *The loss of biodiversity and, subsequently ecosystem services, is an ongoing global problem, resulting in increased public and political scrutiny for industry.*
- *Poor management of natural resources and biodiversity is the biggest driver of project delays and increased costs.*
- *Proactive management of biodiversity and ecosystem services can enhance a company's reputation, mitigate major risks and increase access to resources, finance and markets.*

Articulating the business case

Biodiversity and ecosystem services (BES) are the natural systems on which society and industry depend. Insufficiently managed BES impacts can lead to major risks. Over half of delays to oil and gas projects are attributed to non-technical issues, with social conflict over environmental resources being the single biggest factor¹. Conversely, rerouting a pipeline to minimise biodiversity impacts saved Shell Philippines Exploration an estimated US\$50-72 million².

Failure to develop adequate biodiversity plans has also led to major project delays caused by lenders withholding funds, stricter regulation, community outrage, and licenses being revoked. Such delays can significantly affect a project's Net Present Value (NPV), with several examples having cost hundreds of millions of dollars. Good BES management mitigates these risks and produces a high environmental, social and financial return on investment.



Flagship species, such as chimpanzees, attract high levels of scrutiny and may have far-reaching consequences for a company's reputation – both positive and negative.

At a glance

As well as offering intrinsic value, BES directly or indirectly affect the bottom line.

Opportunities:

- Securing a licence to operate and increasing market or resource access
- Maintaining access to capital
- Improving project schedule and cost efficiencies
- Enhancing reputation and brand, with an associated uplift in employee pride, share price and ease of recruitment and retention.

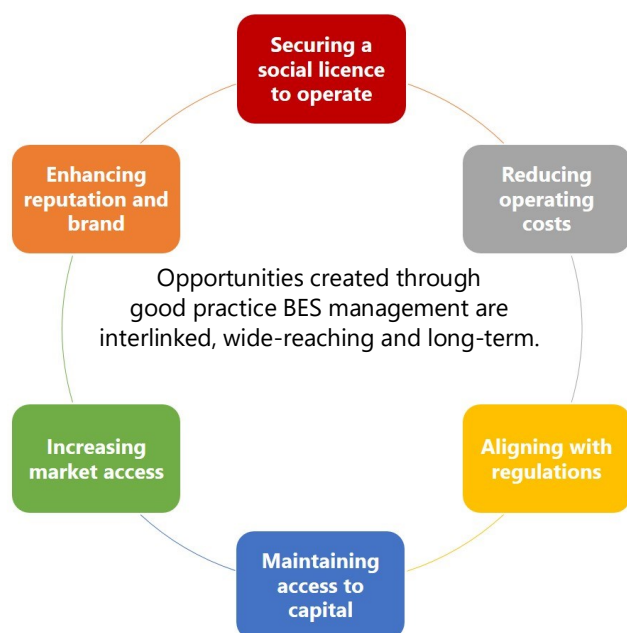
Risks:

- Triggering lengthy litigation or having a permit refused or revoked
- Damaging a company's reputation, share price and social 'licence to operate'
- Impacting operations or the supply chain through disrupting or degrading biodiversity and ecosystem services.

¹ Franks *et al.* (2014) Conflict Translates Environmental and Social Risk into Business Costs. *Proc. Natl. Acad. Sci. U.S.A.*
² Herz *et al.* (2007) *Development without conflict: The business case*

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The vicious/virtuous circle of BES risk and opportunity management



Securing a social licence to operate

In non-OECD, highly biodiverse contexts, project impacts on natural resources affect the communities which depend on them, sometimes with serious socio-economic consequences (e.g. supplies of fresh water and food). For a project, this can translate into increased delays and costs associated with litigation, permitting and social conflict. Mismanaging BES risks the loss of a project's *social licence to operate*. Conversely, good practice BES management builds trust with communities, other stakeholders and regulators, helping a project gain approval and acceptance.

Reducing operating costs

Projects can substantially reduce operating costs by leveraging existing natural infrastructure (ecosystem services, ES), on which they often depend. Project dependencies include: coastal areas and key infrastructure, e.g. harbours; the regulation of reliable and sufficient flows of water; the regeneration of productive soil; micro-climate management (trees); and carbon sequestration in plants and soil. ES are increasingly regarded as an element of business infrastructure. Indirect dependencies may include healthy fisheries supplying food for project workers. The UN Global Compact (2012)³ gives more detail on drivers of BES-related risk management. If not carefully accounted for, BES risk can lead to disruption in operations and supply chains, scarcity, increased cost of natural resources, and increased vulnerability to natural disasters. Early strategic consideration and analysis of design alternatives can substantially reduce such risks.

Aligning with regulations

Businesses, especially primary and energy industries, frequently operate in areas where expectations are uncertain or increasing, such as the emergence of more stringent environmental regulation. Taking proactive measures to raise project standards is invaluable for staying ahead of such trends. Mitigating BES impacts early in the project cycle is simpler and more cost-effective than conducting post-hoc compensation and remediation to comply with new regulations.

Maintaining access to capital

The International Financial Corporation's Performance Standard 6 (IFC PS6) represents international best practice for BES management. Projects seeking finance from the IFC (which finances development totalling in the region of US\$19 billion per year) must adhere to a strict commitment to good practice BES management. In addition, 90 other financial institutions (jointly lending approximately US\$250 billion per year)⁴, have broadly aligned their own BES standards with IFC PS6, through the adoption of the [Equator Principles](#). Export credit agencies are increasingly also applying similar standards through the [OECD Common Approaches](#).

Increasing market access

Good BES management, when recognised by the public, governments and lending institutions, can help companies secure a place in the market and gain a competitive advantage. This is well known for agricultural products, such as cocoa and palm oil, and is gaining traction in other business sectors, e.g. formal certification and recognition can come from achieving high rankings on indices such as the [Responsible Mining Index](#) or [Dow Jones Sustainability Index](#). Such rankings can open access to new investors and consumers who, as a result, may be influenced to hold competitors to similar standards.

Enhancing reputation and brand

Awareness of global biodiversity loss is expanding rapidly, with the impacts of businesses coming under increased scrutiny from consumers and investors. This can hit company bottom lines and share prices (e.g. see IOI Group case study overleaf). Good BES management can avert such reputational risks and produce opportunities to improve customer loyalty and brand image, address shareholder concerns and attract investment. Internally, it can also uplift employee productivity and increase staff morale, which in turn helps recruitment and retention (e.g. the [Kingfisher Net Positive experience](#)).

³ UN Global Compact and IUCN (2012) [Framework for Corporate Action on Biodiversity and Ecosystem Services](#).

⁴ Bennun *et al.* (2017). The Value of the IUCN Red List for Business Decision-Making. *Conservation Letters*.

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Table 1: How does good practice BES management translate into opportunity?

Action to manage risk	Opportunity
Mainstream BES into decision-making across the full project lifecycle – fully integrate BES considerations into planning, construction, operation, monitoring and governance processes.	<ul style="list-style-type: none"> • Company seen as a partner of choice by joint venture partners, lenders and governments, facilitating future projects and growth • Efficiency and innovation in project design • Increased efficiency and pragmatism in actions to avoid and minimise risk • Saved cost through reduced post-hoc mitigation/remedial liabilities, by proactively mitigating impacts before they occur.
Ensure transparent stakeholder engagement – pro-actively engage with relevant stakeholder groups to understand and address concerns early.	<ul style="list-style-type: none"> • Positive relationship with stakeholders, regulators and media, leading to enhanced consumer relations, increased sales and profit • Shared understanding of brand, expectations, responsibility and accountability, increasing the likelihood of ‘win-win’ scenarios • A ‘social licence to operate’, reducing risk of project costs and delays • Ability to take relationships and lessons-learned forward to future projects.
Align with good international industry practice – develop corporate no net loss/net gain policies for BES.	<ul style="list-style-type: none"> • Competitive advantage through reduced development cost and accelerated timelines • Access to land, permits, capital and resources that might otherwise be unavailable • Potential to help shape emerging policy, legislation, regulations and standards, if taking a leadership position in a sector or jurisdiction • Significant positive publicity from catalysing national or regional conservation initiatives such as protected area expansion.
Assess BES dependencies across company and supply chains – and take actions to manage and reduce impacts/risks.	<ul style="list-style-type: none"> • Ability to understand and manage company dependencies on ecosystem services before these become expensive constraints • Avoidance of social/community conflict • Benefits to operations/supply chain through enhanced ecosystem services.



Mangroves are home to endangered species, provide sustainable livelihoods and offer coastal industries cost-effective, robust protection against extreme events.



Bird Flight Diversifiers fitted to cables powering Rio Tinto's Oyu Tolgoi mine in Mongolia protect Houbara bustards and contribute to lender requirements and company targets.

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Table 2: Cautionary tales illustrate how industry has learnt that upfront investment in BES management can avoid risk and reap rewards.



Upfront management of BES helps avoid delays

Rio Tinto (reported in [The Australian](#))

Rio Tinto's US\$1.4 billion South of Embley project in Australia was delayed by 18 months to re-assess impacts of shipping on the Great Barrier Reef. This had been inadequately addressed in the first proposal. The project was eventually given the go-ahead after resolving concerns through committing to appropriate avoidance and mitigation measures.



Poor biodiversity management can damage share prices

IOI Group (reported by [Innovation Forum](#))

The Roundtable on Sustainable Palm Oil suspended IOI's certification in 2016 on the grounds that they had failed to prevent their subsidiaries involvement in deforestation in Indonesia. Many of their customers ceased trading with them as a result and IOI's share price fell by 10% (\$800m).



BES can be a costly risk for industry

Infinito Gold (reported by [MICLA](#))

The Las Crucitas gold mine site, Costa Rica, is home to the Endangered Great Green Macaw, a species of high stakeholder concern that nests in yellow almond trees at Las Crucitas. Clearance of these trees was required at the mine site. Successive governments issued and then withdrew open pit mining licences, leading to a series of delays and closures spanning approximately 20 years and causing the company to sue the Costa Rican Government for US\$94 million in investment alone.



Operational and community dependence on ES can cause conflict

Anglo-American (reported by [Reuters](#) and [Anglo American](#))

There was an 18-month delay in Anglo-American securing local government approval for the Quellaveco mine, Peru. Local communities were concerned about access to, and quality of, the water supply for agriculture, given company plans to use water in operations. Anglo-American revised their water management plan and agreed to pay the surrounding community compensation of US\$370 million over the 30 years of mine operation. Significant steps which earned the company community approval and social licence to operate.



Turning biodiversity from risk to opportunity

Sakhalin Energy and Shell (reported by IUCN in [Stories of Influence](#))

Following protests and pressure from environmentalists, Sakhalin Energy was facing reputational and regulatory risks because of potential impacts of its planned gas pipeline on the feeding grounds of the Endangered Western Grey Whale. In consultation with IUCN in 2005, the project re-routed the offshore pipelines to avoid sensitive areas. In doing so, they established new standards in environmental performance, dramatically improved relationships with stakeholders and won an "[Environmental Project of the Year Award](#)" – effectively reversing the fortune of the project (and the whale).

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Return on investment

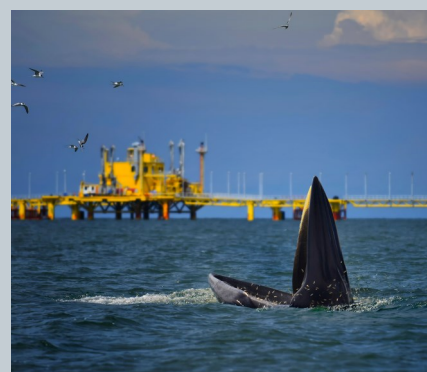
Biodiversity and Ecosystem Services (BES) underpin sustainable development and the well-being of many communities that depend on biodiversity for food, livelihoods and other services. For industry, BES have a direct impact on the bottom line. Consideration early in the project cycle can help avoid major project delays and help produce 'win-win' outcomes for the business, its stakeholders, society and global biodiversity conservation: sound BES management gives a sound, multifaceted return on investment helping companies achieve numerous sustainability objectives such as in social welfare, climate change and access to water and other natural resources. TBC is currently working with clients on how to maximise their return on investments in biodiversity and natural resource management.

Further guidance

- [Natural Capital Coalition](#) brings together global initiatives and organisations with the aim of harmonising approaches to natural capital.
- In 2016, IUCN under the auspices of the NPI Alliance, published [Net Positive Impact: the business case](#), which explores how a Net Positive Impact (NPI) approach on biodiversity can enable the private sector to better manage biodiversity and contribute to global conservation.
- The [Ecosystem Approach Sourcebook](#) offers a case study database, information about the ecosystem approach, and the various tools and techniques that can be used to implement it.
- Sectorial initiatives such as [IPIECA](#) (oil and gas) and [ICMM](#) (mining) help shape environmental and social best practice and policy in their respective industries.
- [Biodiversity and ecosystem services fundamentals](#), published jointly by IPIECA and IOG and written by TBC, brings together information essential to informing BES strategy development and decision making at the corporate level and at the key stages of an asset life cycle for any type of operation or environmental context.
- The [Review of the International Council on Mining and Metals members' biodiversity performance management since 2003](#), co-written by TBC on behalf of IUCN and ICMM, charts progress among ICMM's members between 2003 and 2013.
- The Cross Sector Biodiversity Initiative (CSBI), which brings together IPIECA, ICMM and the Equator Principles Association has published a number of useful tools, including [A cross-sector guide to implementing the Mitigation Hierarchy](#) (written by TBC) and a [Timeline Tool](#) for planning.
- As part of Society of Petroleum Engineer's 2016 annual conference, TBC's paper [Who are biodiversity and ecosystem services stakeholders?](#) explores the wide range of groups and individuals affected by development project and how best to engage them.
- Biodiversity risk screening is a sure way to avoid costs and delays. TBC's [Biodiversity screening IBN](#) shows how.

The Biodiversity Consultancy works together with industry to achieve an ecologically sustainable basis for development by tackling complex biodiversity challenges and by supporting positive conservation outcomes. Our business-focused approach can:

- Identify and avoid risks before they occur
- Deliver your projects on time and at cost
- Turn environmental challenges into opportunities
- Demonstrate shared value to stakeholders
- Build a positive brand and sustainable business



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First published October 2017. Suggested citation: TBC (2017) "Biodiversity and ecosystem services: the business case for managing risk and creating opportunity". Industry Briefing Note of The Biodiversity Consultancy, Cambridge, UK.