

Integrating biodiversity into risk management and oversight

February 2020
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Risk Management-
Operations vs
Strategy

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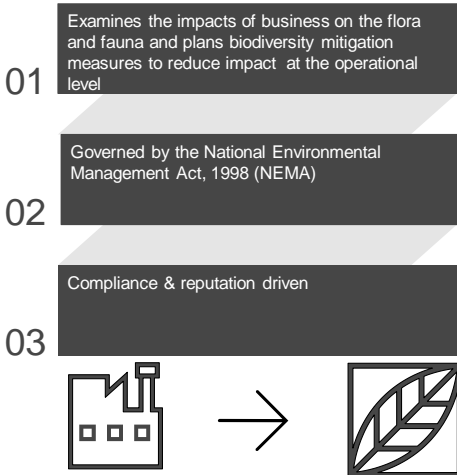
Global warming may dominate headlines today. Ecosystem degradation will do so tomorrow.

Corporate Ecosystem Services Review, World Resources Institute et al., 2008

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Traditional approaches to biodiversity

Traditional thinking of biodiversity in business



Biodiversity management as an organizational strategy



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Biodiversity Loss- as a significant business risk

Top 10 Risks Over the Next 10 Years (Global Risk Report, 2020)



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Biodiversity Loss - a significant business risk

Investors are increasingly applying non-financial factors as part of their decision making process to assess material risks and growth opportunities in companies.

Sustainable investing has increasingly grown mainstream worldwide as a result of the following:

- Financial metrics as the sole decision maker for investments are no longer enough;
- The lack of focus on ESG issues has proven disastrous for many companies; and
- Companies which deliver on both financial and non-financial metrics have a strong market performance and lower cost of capital.



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Biodiversity Loss - a significant business risk

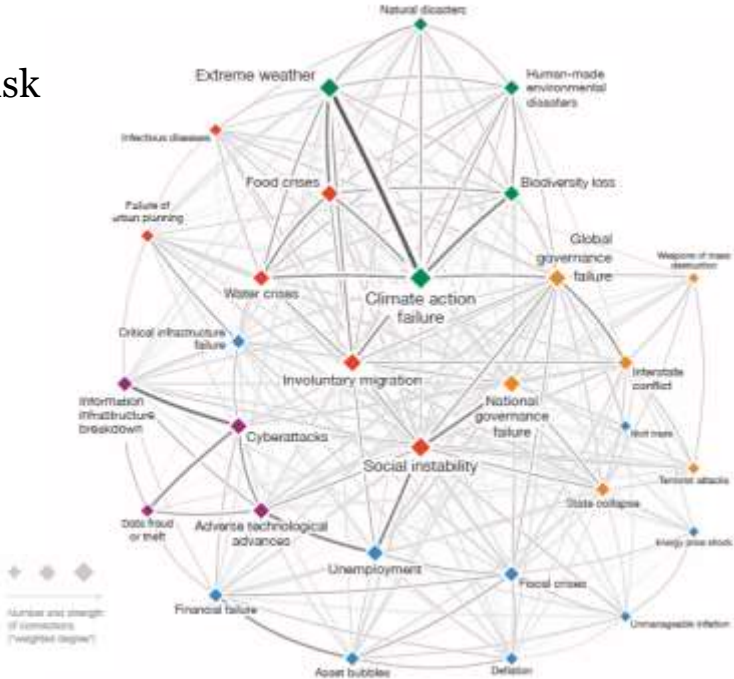
Even though many view biodiversity purely from an environmental angle, it does have an impact on a company's social, governance and ultimately bottom line.

Biodiversity loss has been found to have far reaching consequences on businesses, where raw materials can no longer be sourced at the quantity and quality required, resulting in increased costs in the supply chain.

Hence, it is important for businesses to develop strategies that address their dependencies on biodiversity and how to adapt to external pressure.



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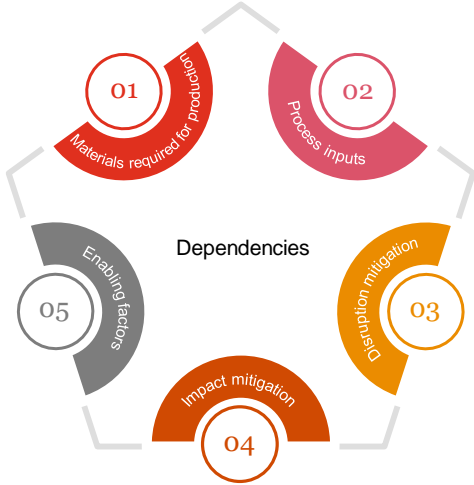


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Dependencies and Natural Capital Risk

Human and economic activities are dependent on biodiversity in a fundamental way.



- 01 Disrupted supply chains**
Raw materials required for production (e.g. Water, timber).
- 02 Reduced availability and increased cost of raw material**
Reduced access to raw material availability, resulting in an increased cost for the resource required for production (e.g. Water for cooling).
- 03 Stranded/impaired asset and reduced competitiveness**
Disruption mitigation approaches such as flood protection or erosion control may result in increased costs to the business.
- 04 Stricter regulations/Government intervention**
Impact mitigation approaches such as dilution/filtration of emissions or waste-water effluents may have stricter regulations, and more direct government interventions.
- 05 Decreased investor confidence**
Reduced investor and stakeholder confidence as enabling factors, such as pollination or predictable crop seasons fail. Increased costs to imitate failing "natural" services.

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Hidden risks for business

There is still a limited understanding of how nature loss impacts business. Research conducted by WEF and PwC (UK) (2020) note that nature risks become material for businesses in the following three ways:



When businesses depend directly on nature for operations, supply chain performance, real estate asset values, physical security and business continuity



When the direct and indirect impacts of business activities on nature loss trigger negative consequences, such as loss of customers or entire markets, costly legal action and adverse regulatory changes



When nature loss aggravates the disruption of the society in which businesses operate, which in turn can create physical and market risks

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Oversight

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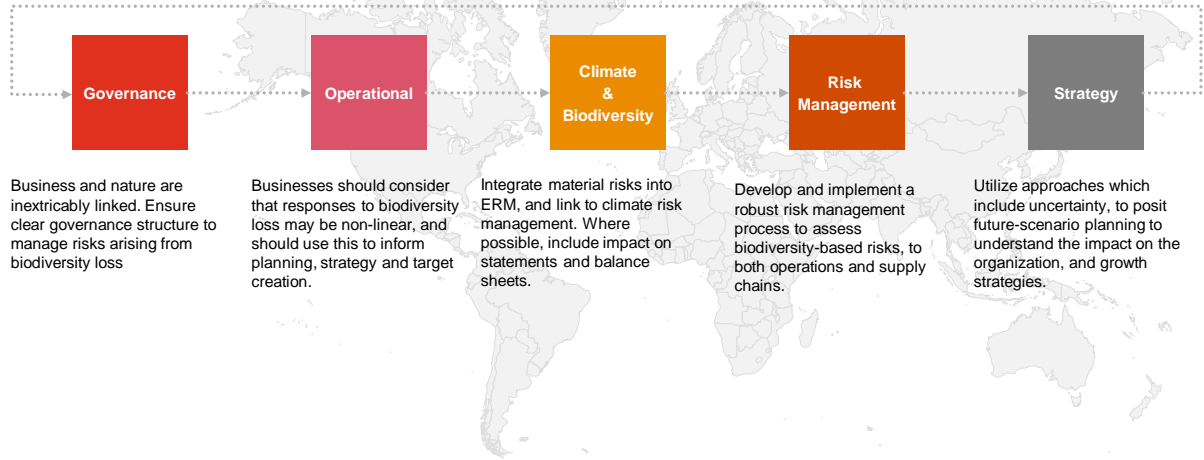
One attempt to put a monetary value on goods and services provided by ecosystems estimates the worth of biodiversity at US\$33 trillion per year—close to the GDP of the United States and China combined.

Unicef (2019)

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Management of biodiversity-related risk

It is important to identify the areas in which strategic transformation of current business models and production processes can contribute the deducing biodiversity-related risk.

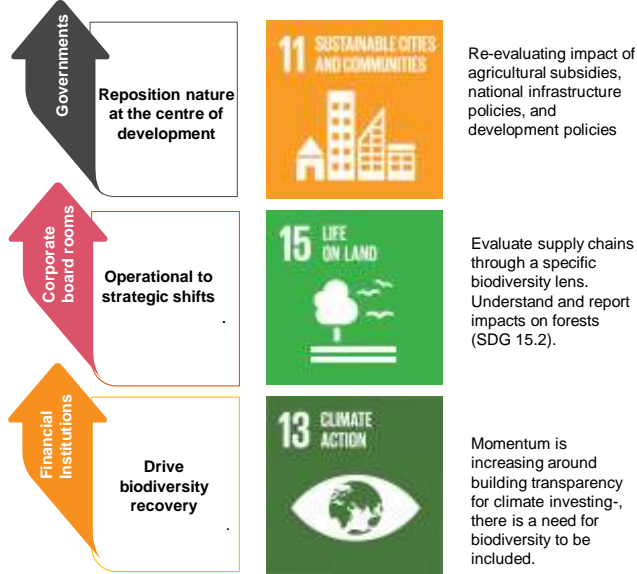


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Oversight

Solutions to stemming biodiversity loss will be as complex as the problem itself.



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Thank you

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