



# NATURE & RESILIENCE FACTSHEET

## Introduction

The intersection of the nature and climate crises was made explicit in the Joint Statement on Climate, Nature, and People, published at COP28 in Dubai<sup>i</sup>. Recognition of the need to address these issues has also risen up the boardroom agenda. 24% of CEOs who were interviewed for Business in the Community's (BITC) 'Lifting Up the UK: State of the Nation 2024'<sup>ii</sup> reported seeing biodiversity as 'the next big thing in ESG', due to new reporting requirements and growing public awareness. However, the global economy is operating outside the safe zone for six of the nine planetary boundaries<sup>iii</sup>. This is a consequence of continued resource extraction, at a rate 1.75 times faster than nature can replenish<sup>iv</sup>. More recently, the WWF's Living Planet Report declared a 73% decline in wildlife populations from 1970 to 2020<sup>v</sup>. The breakdown of nature will make humans more vulnerable to the effects of climate change and other environmental shocks.

Understanding, communicating, and taking the practical actions required to build resilience to environmental shocks is difficult for stakeholders. This factsheet aims to de-mystify key terminology around nature and biodiversity and how they impact resilience. The factsheet concludes with insights from COP16 to inform business-led nature stewardship.

## Debunking definitions

Clear and tangible definitions are required to encourage business action, to protect people and the planet; as outlined by the Dasgupta Review in 2021 that our economy is embedded in nature. BITC aligns with the following widely adopted definitions of nature and its associated concepts, to help establish consistency in their use and application within nature stewardship, a key element of our Seven Steps for Climate Action toolkit<sup>vi</sup>. However, nature stewardship interacts with other enablers – embedding circular principles and involving diverse stakeholders.

## Key concepts in nature

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**Nature:** refers to the natural world: all the natural capital, processes, and ecosystem services including freshwater, air, the weather, oceans and forests<sup>vii</sup>.

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Nature encompasses all living things (including people) and their interactions with each other and with their environment<sup>viii</sup>. It is helpful to consider nature as being the four realms of land, ocean, freshwater and atmosphere, and the interactions between these.<sup>ix</sup>

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**Biodiversity:** refers to the variability among all living organisms and includes diversity within, and among both species and ecosystems<sup>x</sup>.

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Biodiversity is crucial for ecosystems to function effectively<sup>xi</sup>. A key driver of biodiversity loss is humans causing habitat destruction, either directly through overexploitation or indirectly due to pollution<sup>xii</sup>. Any changes in biodiversity can influence the supply of ecosystem services on which we depend.

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**Ecosystems:** biological systems or 'communities' composed of plant, animal and microorganisms and their physical environment.

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Plants, animals and microorganisms in a place interact with each other to create a functional unit<sup>xiii</sup>, examples of which include tropical or temperate rainforests and mangroves. These interactions break if one part of the ecosystem is damaged, and therefore the ecosystem as a whole is more valuable than the sum of its parts.

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**Ecosystem services:** a concept that illustrates the 'usefulness' of biodiversity and offers a framework for demonstrating this<sup>xiv</sup>.

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Ecosystem services are the benefits that species provide to each other, as well as the benefits that nature brings to people, in terms of wealth, nutrition or security. Framing

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these processes as 'services' provides a useful means of communicating our own societal and economic dependence on the natural world<sup>xv</sup>.

The various benefits derived from ecosystem services can be grouped into four distinct categories<sup>xvi</sup>:

- **Provisioning services** or 'goods' used for direct consumption or inputs such as food, clean water and raw materials.
  - **Regulating services** such as climate regulation, regulation of floods, water purification.
  - **Cultural services** which are non-material benefits, from recreational or spiritual use and scientific knowledge.
  - **Supporting services** such as nutrient cycling or soil formation.
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**Natural capital:** the stock of renewable and non-renewable natural resources which combine to yield a flow of benefits to people <sup>xvii</sup>.

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This refers to the amount (stock) of things which are present in nature (e.g. plants, animals, air, water, soil). Framing this as 'capital' highlights the potential value that these components have for the providing ecosystem services as a useful 'flow' of value to people, such as in the form of food and clean water<sup>xviii</sup>

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Nature-related risk: the potential threats posed to an organisation linked to its, and other organisations', dependencies on nature and nature impacts<sup>xix</sup>

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The Taskforce for Nature-related Financial Disclosure (TNFD)'s definition is based on the principle of double materiality. Organisations should consider not only risks posed by nature impacting the organisation's immediate financial performance, but also how the organisation poses a risk to and impacts nature. This is because society, economies and financial systems are embedded in nature, not external to it.

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## How nature provides resilience

**Ecosystems do not exist with the aim of fitting human needs. If economic activity damages ecosystems, it can weaken their capacity to supply services and maintain resilience.**

Examples of resilience being weakened through ecosystem damage include:

- International supply chain disruption attributed to an increase in natural hazards such as drought, affecting the navigation of the Panama Canal<sup>xx</sup>.
- A water company in Somerset has spent £18 million upgrading water recycling centres to mitigate the effects of an increase in the amount of chemicals entering the watercourse, which causes damage to plants and animals. <sup>xxi</sup>
- Biodiversity loss resulting from deforestation has reduced the ability of forest ecosystems to control disease-spreading species. This is thought to have accelerated the spread of Ebola in West and Central Africa<sup>xxii</sup>.

Climate change and biodiversity loss are part of the same problem and therefore require an integrated approach to tackling both<sup>xxiii</sup>. Healthy ecosystems also help enhance carbon capture and storage in natural sinks, increasing the resilience of both human and natural systems and helping our ability to adapt to its impacts. Figure 1, taken from The Dasgupta Review<sup>xxiv</sup>, helps to demonstrate the multitude of ways restoring biodiversity increases resilience in the provision of ecosystem services and reducing risk.

For instance, soil in mangrove ecosystems was found to have held around 6.4 billion metric tons of carbon in 2000. Between 2000 and 2015, up to 122 million tons of carbon was released as a consequence of human-induced mangrove destruction<sup>xxv</sup>.

Nature stewardship is how we as a society can act to safeguard nature and the resilience that it provides. This is also central to efforts for mitigating and adapting to climate change. Every business must take responsibility for restoring the health of nature if it wants to succeed into the future.



## How nature stewardship can improve resilience by optimising bioresources

Biosolids (treated sewage sludge), are a type of bioresource which are sustainably renewable, and biodegradable. Biosolids can boost crop productivity when applied to agricultural land, due to their capacity to maintain soil nutrients and increase water holding capacity. Utilising biosolids in this way returns nutrients and organic matter to the soil. However, business activities have led to an increase in levels of contaminants, such as chemicals and microplastics, which reduces the application of biosolids for this purpose, as well as contaminating wastewater.

The impacts of poor nature stewardship results in a higher dependence on synthetic fertilisers. These are costly, impacting the costs of food production, and rely on carbon-intensive processes. This reduces the resilience of agricultural supply chains, and society more widely, to both short-term economic shocks and long-term climate impacts. A range of stakeholders across the value chain are called on to prioritise nature stewardship concerning bioresources to optimise this valuable resource. **Read more in our Optimising Bioresources: Reducing Water Pollution report.**

Figure 1 – Increased biodiversity and reduced risk, from *The Dasgupta Review*<sup>1</sup>

## Taking Action – COP16

### **We are increasingly seeing calls for action to embed nature into decision-making.**

Biodiversity COP16 was held between 21<sup>st</sup> October to 1<sup>st</sup> November 2024 in Cali, Colombia. The official logo includes the Ingrida flower, which is everlasting bloom native to Guainía and symbolises resilience. Prior to the conference, the themes outlined were representation and participation and peace and financial flow in regards to nature. During the last COP15 in Montreal, Canada, almost 200 nations, including the UK, pledged to reverse biodiversity loss and protect 30% of land and seas by 2030. This is a key target of the Global Biodiversity Framework (GBF), agreed at this conference, as well as target 15, which is specifically focused on businesses assessing, disclosing and reducing biodiversity-related risks and negative impact.<sup>xxvi</sup> These are the fundamentals underpinning the Taskforce for Nature-related Disclosures (TNFD), published at the end of 2023.

This year, there was an acknowledgement that GBF is the equivalent of the Paris Agreement on carbon, as nature rapidly moves up the business and government agenda. The awareness is attributed to natural services becoming weaker, leading to pressures in the material world. Discussions focused on how to engage businesses at varying levels, with the United Nations Environment Program (UNEP) releasing a report on Nature in the Boardroom<sup>xxvii</sup>. The notion of fiduciary responsibility was detailed, as profit cannot be separated from the planet. For example, pensions mean nothing if, by the time they payout, we cannot breathe air. Other actions businesses can take to halt and reverse nature loss include stepping outside of value chains, whole-organisation upskilling on key terminology, and the private sector prioritising nature-based solutions with International Union for Conservation of Nature (IUCN) high integrity standards in mind, amid volatile voluntary markets as the London Stock Exchange group reinforces<sup>xxviii</sup>.

It was inspiring to see diverse stakeholders platformed, which is one of BITC's Seven Steps for Steps for Climate Action, specifically Indigenous populations. Indigenous Peoples Principles and Protocols for Just Transition<sup>xxix</sup>, was published in the first week which outlines crucial

guidance, such as ensuring indigenous people's right to life and right to decide sovereignty, that aligns with UN's Declaration on the Rights of Indigenous Peoples adopted in 2007. The reiteration of Indigenous perspectives on a Just Transition is timely as decarbonisation efforts are scaled. Critical minerals are required for renewable energy technologies. For instance, lithium, copper and cobalt, and some 54% of mines for these materials are located on or near Indigenous people's land<sup>xxx</sup>. New agreements such as Mineral Security Partnership indicate the growing reliance on Global South land. With higher demand for these resources, extractive practices should be eliminated to ensure Just Transition is not a concept confined to Global North borders. A speaker from the World Economic Forum emphasised the significance of the circular economy as the solution. Countries must change the way they produce products, machines and industrial processes so they can repurpose critical minerals found in many technologies today.

### **Next step: contact the Business in the Community Team**

Find out how BITC's [Nature and Resilience Lab](#) helps businesses to consider impact and dependencies on nature and the risks of the changing climate.

[BITC Environment Advisers](#) can provide further access one-to-one advice, upskilling sessions, and training to support your teams in addressing environmental issues and maximise the opportunities of aligning your business strategy with effective nature stewardship.

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<sup>i</sup> [COP28. \(2024\). COP28 Joint Statement on Climate, Nature and People](#)

<sup>ii</sup> [Business in the Community. \(2024\). Lifting up the UK: State of the Nation 2024](#)

<sup>iii</sup> [Stockholm Resilience Centre. \(n.d.\). All planetary boundaries mapped out for the first time, six of nine crossed.](#)

<sup>iv</sup> [The World Counts. \(n.d.\). Overuse of resources on Earth.](#)

<sup>v</sup> [WWF. \(2024\). Living Planet Report 2024.](#)

<sup>vi</sup> [Business in the Community. \(n.d.\). Seven steps for climate action.](#)

<sup>vii</sup> [Business for Nature. \(n.d.\). The business case for nature.](#)

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- ix [Taskforce on Nature-related Financial Disclosures \(TNFD\). \(n.d.\). Why nature matters.](#)
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