

UNDP BIOFIN – TNFD Training

Nature and Climate – shared trajectories

June 2025

Climate Risk Services

UNDP

BIOFIN
The Biodiversity Finance Initiative

Meet the team

- Climate Risk Services' CEO **Gerhard** has a wealth of experience in the climate and nature field, previously working for consultancies, banks, governments, and the IUCN. He also holds an MBA from the University of Oxford.

- As a senior analyst at Climate Risk Services, **Ben** specialises in nature-related risk for financial institutions and corporates. Ben holds a Masters degree from Imperial College London in Environmental Technology (environmental economics and policy).



Gerhard Mulder

CEO

gerhard@climateriskservices.com



Ben Mitchell

Senior Analyst

ben@climateriskservices.com

In this video…

1. Nature & Climate
2. The shared trajectory

Key Objectives

- Understand how climate and nature are interconnected but distinct issues.
- Understand how nature is following the same trajectory as climate

Nature & Climate

Nature and Climate definitions

Climate and nature are interconnected concepts that need to be addressed together

Nature

Refers to the world's natural features – living and non-living – that are not created by humans.



Environment

The air, water, and land in or on which people, animals, and plants live.



Climate

Climate is the long-term pattern of weather in a particular area.



Seddon, 2023. Nature Based Solutions Course.
Cambridge Dictionary
Finance for Biodiversity Initiative. 2020. Aligning Development Finance with Nature's Need. Protecting Nature Development's dividend.

Connections between nature and climate

How do nature and climate relate to each other

Climate change drives nature loss

Nature



Nature can be utilized for both climate change mitigation and adaptation

Climate



Nature loss drives climate change

Climate change drives nature loss

One of the key drivers of biodiversity loss is climate change itself

Climate change drives biodiversity loss by:

- Altering **species ranges** and driving **habitat loss**
- Increasing the frequency of **extreme weather**
- **Ocean warming** and **acidification** leading to coral bleaching and marine ecosystem collapse
- Altering phenology – disrupting established relationships between species lifecycles and creating **phenological mismatch**.

Nature has adapted to climatic changes and shifts in the past – but slowly and over time, other rapid climatic changes (pre-humans and nature driven) have led to **mass extinctions**. Climate change is occurring too fast for ecosystems and species to adapt as they normally would.



The range of the fynbos biome and its high plant diversity is projected to undergo a 50% contraction of suitable climatic range by 2050 (according to bioclimatic modelling).

Image, the fynbos biome source: the Guardian

Nature loss drives climate change

Nature loss equally contributes to climate change

Nature loss drives climate change through:

- **Land-use change** reducing the size, capacity, and effectiveness of **carbon sinks** – deforestation, wetland drainage, peatland burning, soil degradation
- Loss of **marine biodiversity**, coral reefs, seagrasses, and phytoplankton lessens the ocean's ability to **store carbon**.

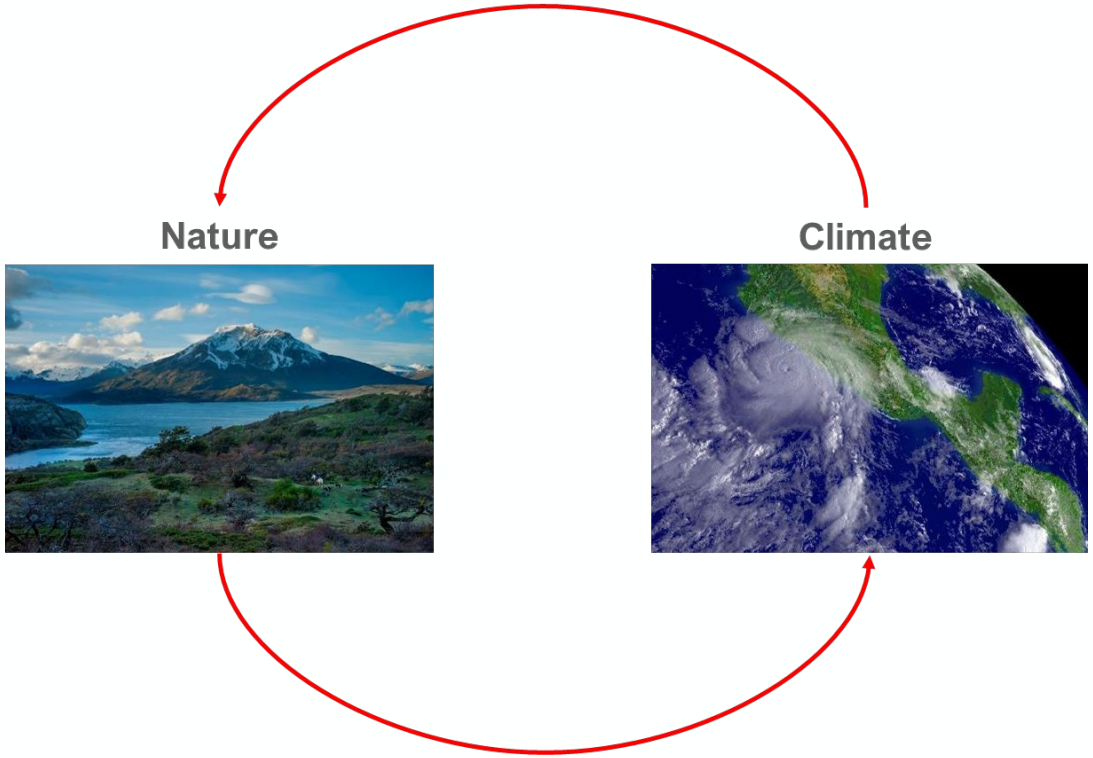
Since 1930, South Africa has lost approximately 6,500 ha of blue carbon ecosystems (mangroves, salt marshes, seagrasses) equivalent to releasing approximately 3.98 TG CO_2e.



Image, saltmarsh, west coast national park source: Peter Prokosch

Feedback loops

Nature loss and climate change can drive each other



A negative feedback loop is created at a systemic level where climate change drives further nature loss, and the loss of nature contributes to climate change.

Nature's role in climate mitigation and adaptation

By addressing and reversing nature loss, climate change can be both mitigated against and adapted to.

Mitigation

- Ecosystem potential to be carbon sinks can be promoted through habitat creation/restoration practices such as reforestation and wetland restoration.
- Ecosystem service improvement can also be used to improve carbon sequestration – using regenerative agriculture can improve soil's ability to sequester CO_2

Adaptation

- **Nature-based solutions** can be pursued, if local community engagement is in place, "Actions to protect, sustainably manage, and restore natural or modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits."— IUCN (International Union for Conservation of Nature).



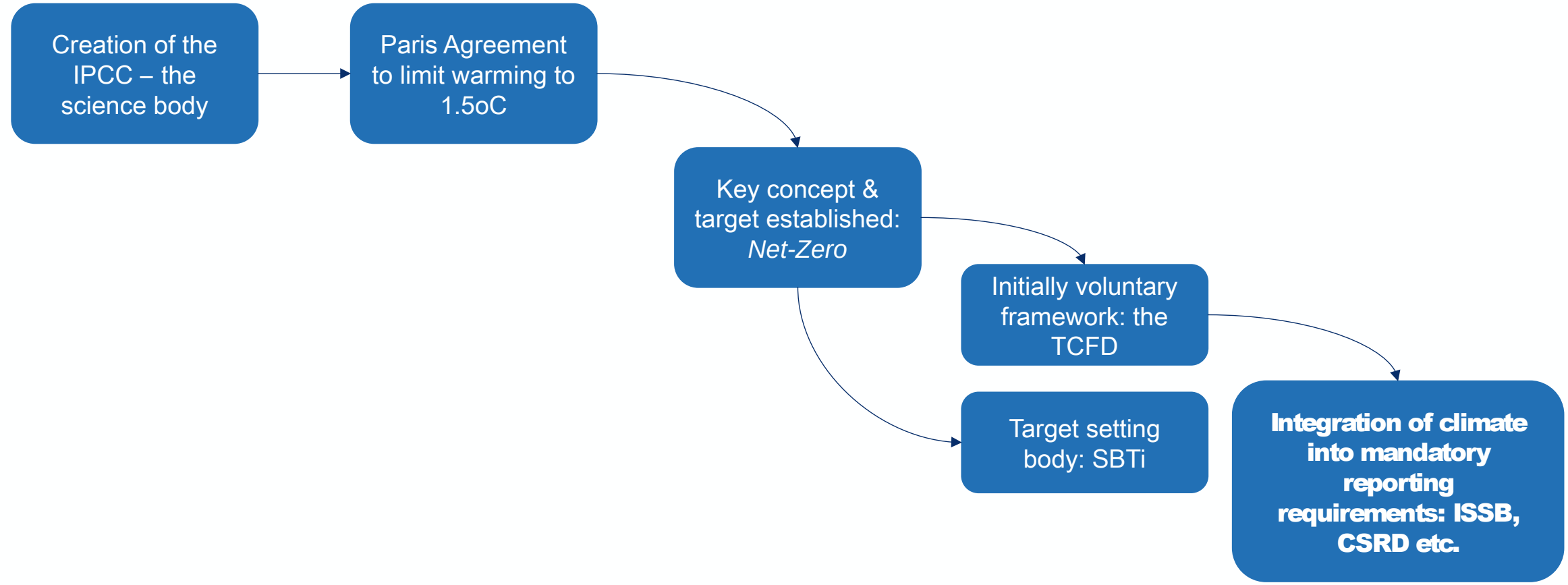
The Buffelsdraai community restoration project is restoring a landfill site to indigenous forest habitat. Planting over 500,000 native trees to sequester carbon alongside enhancing ecosystem services including water regulation and soil stability.

Image, Buffelsdraai reforestation project source: Wildlands

The shared trajectory

The growth of the climate change agenda

From international framework to regulatory requirement

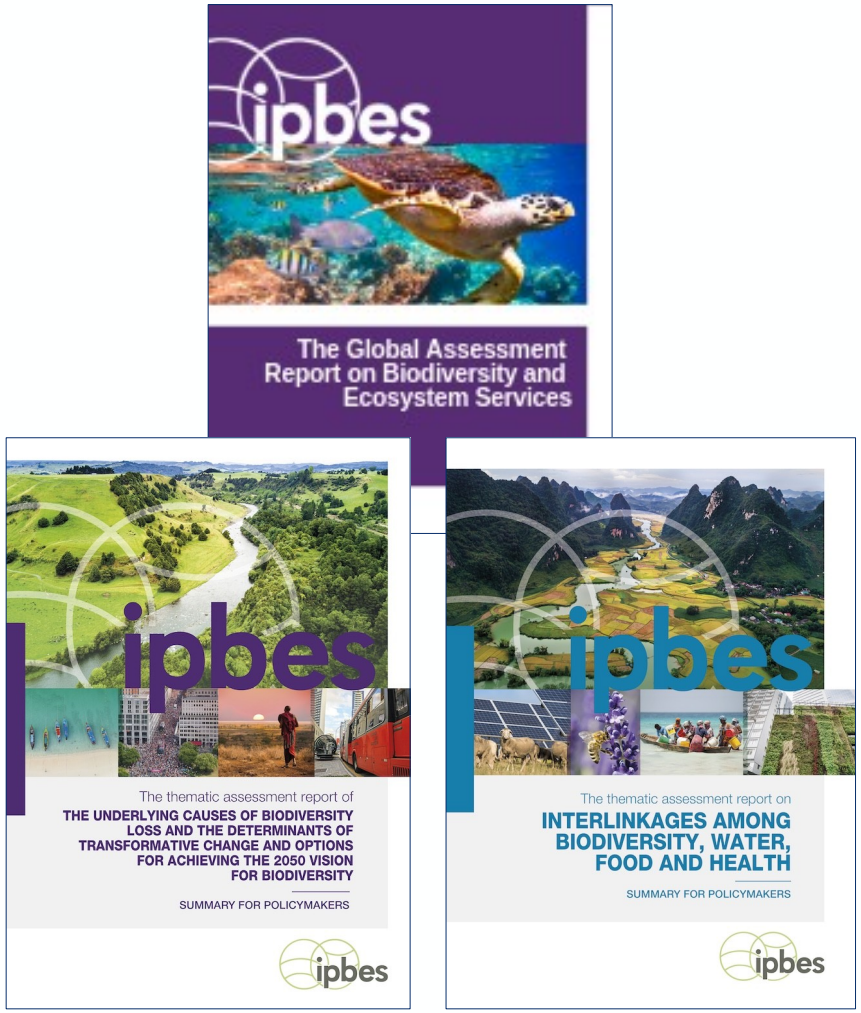


Nature: IPBES

The scientific consensus on nature

Founded in 2012, IPBES plays a similar role to that of the IPCC for climate but for nature:

- delivers scientific consensus assessments on topics such as pollinators, land degradation, and invasive species.
- Produces policies, tools/methods, and advice for policymakers and governments.
- Works to build capacity in the topic underpinned by scientific knowledge.
- Submits reports and promotes them to reach decision-makers and broader society.



Nature: The Global Biodiversity Framework

The key international agreement for nature adopted at COP15 in 2022

The GBF is a major landmark agreement between the international community, signed in 2022, and referred to as the Kunming-Montreal protocol.

Key aim: halt and reverse biodiversity loss by 2030, paving the way for ecosystem and recovery & resilience by 2050.

Some of the **GBF 2030 targets**:

- "30x30" protected areas, protect at least 30% of land, inland waters, and coastal/marine ecosystems.
- Support restoration of 30% of degraded terrestrial, freshwater, coastal, and marine ecosystems.
- Mobilise USD $200 billion annually by 2030 from public and private sources
- Take legal, administrative or policy measures to ensure that **financial institutions** regularly monitor, assess, and disclose their risks dependencies and impacts on biodiversity



Source: Wikipedia

Nature: the Nature Positive target

The key target and terminology for nature

Similar to Net-Zero, with its origination in international agreements **Nature Positive** is the key term conveying the aim to halt and reverse nature loss by 2030 (on a 2020 baseline).

It is the key goal in line with the GBF and aims to fulfil the same role as net-zero for climate – a **clear, time-bound goal** for mitigation of the issue.

The **nature positive initiative** is also working on generating a list of state of nature metrics, to act as the equivalent of CO2e for nature.



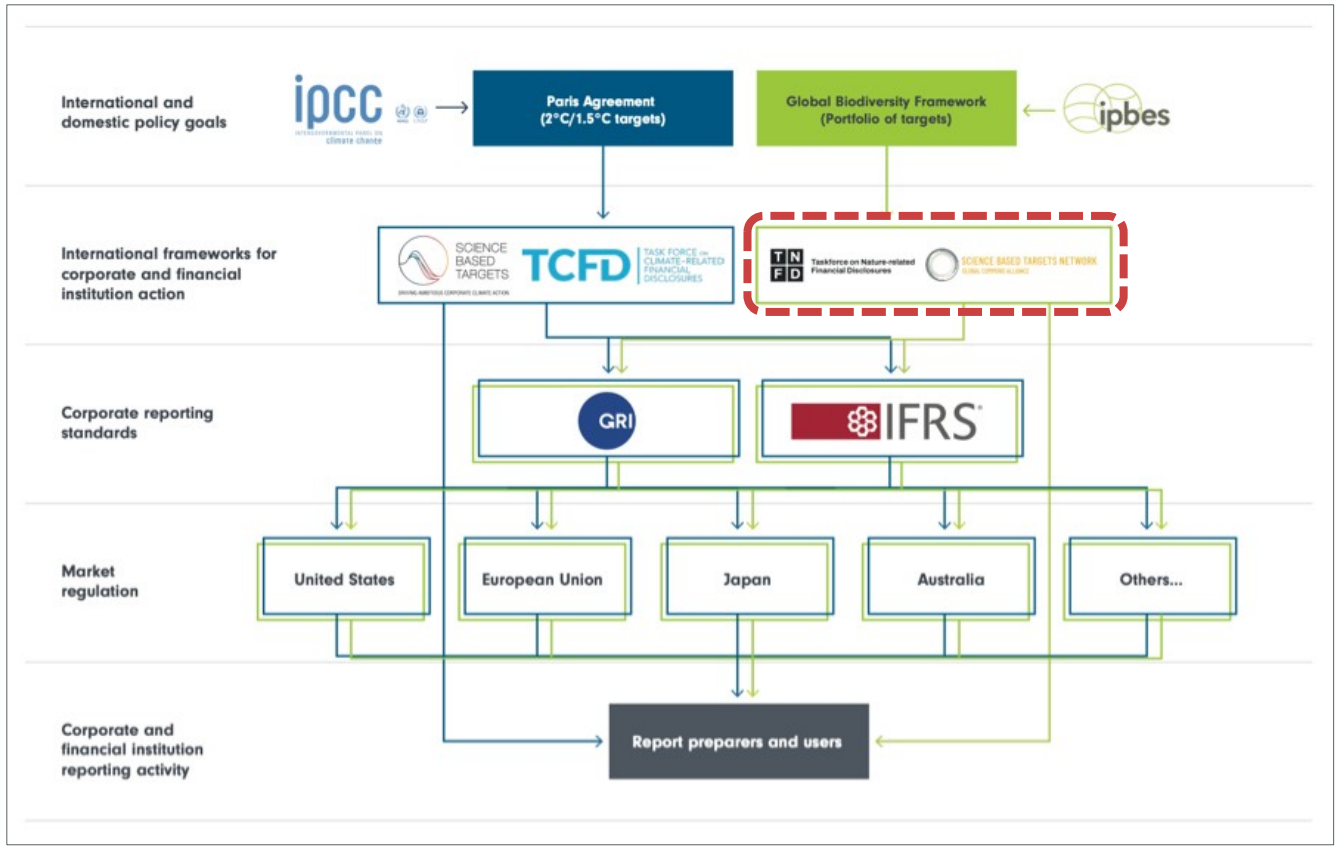


Marco Lambertini former director general of WWF and convener of the Nature Positive Initiative

Nature: the TNFD & SBTN

Guiding framework and target-setting

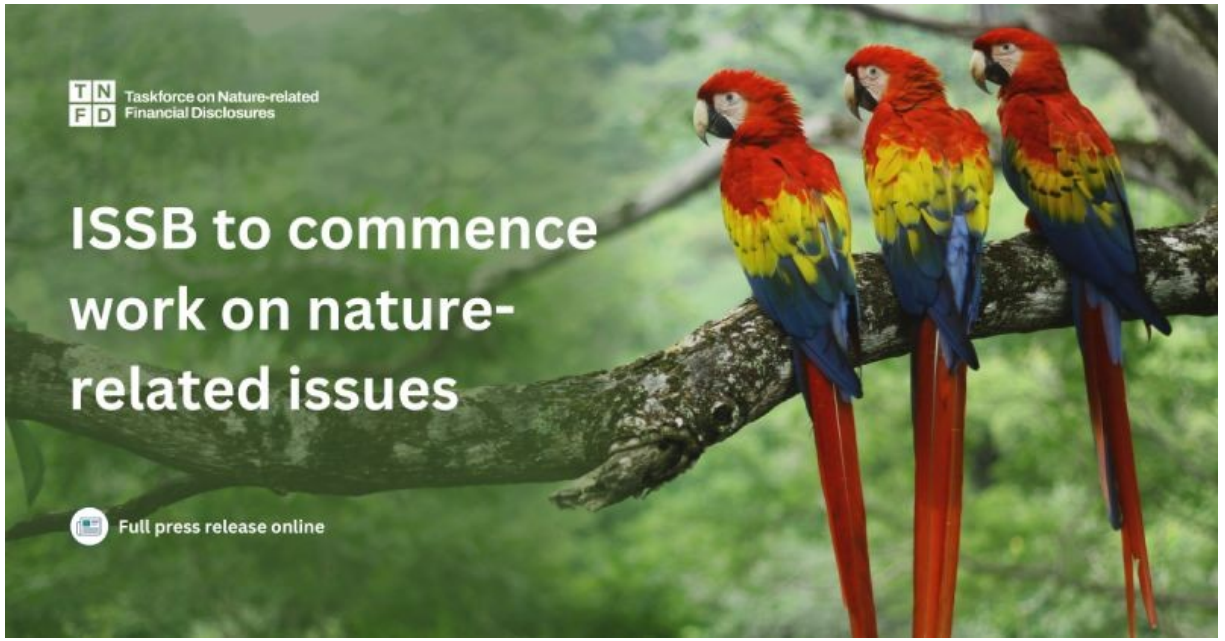
Based on the TCFD for climate, the Taskforce for Nature-related Financial Disclosures (**TNFD**) is the key guiding framework for recommended disclosures around nature risks. The TNFD also recommends suitable metrics for various sectors and methodologies for nature risk assessment and scenario analysis.



Similar to the SBTi, the Science Based Targets Network (**SBTN**) delivers scientific thresholds to guide corporate and FI action on nature, including assessing nature impacts, prioritising impact channels, setting targets, acting to mitigate nature impacts and track impacts. With ongoing rollout of tools.

Nature: where next?

Mandatory nature disclosures are inbound – and nature is increasingly factored into transition planning





Announced in 2024 the ISSB will incorporate the TNFD disclosure recommendations into its own IFRS standards – exactly as has been done for the TCFD.

The role of nature in transition planning, both within climate transition plans and in joint climate & nature transition plans is growing.

Nature vs Climate

The shared trajectory of nature and climate can show us where the nature agenda is going next

Key Event	Climate	Nature
Technical group providing scientific consensus:	**IPCC** *(1988)*	**IPBES** *(2012)*
Key international agreement:	**Paris Agreement** *(2015)*	**Global Biodiversity Framework** *(2022)*
Key aim established:	**Net-Zero 2050**	**Nature Positive 2030**
Guiding voluntary disclosure framework:	**TCFD** *(2015)*	**TNFD** *(2021)*
Key target assisting body:	**SBTi** *(2015)*	**SBTN** *(2019)*
Mandatory disclosures and regulations:	✓	**?**

Key takeaways

Nature & climate, two issues on the same trajectory

1

Nature and climate are distinct concepts with a very interconnected relationship.

2

Climate change drives nature loss and nature loss drives climate change; but nature can be used to mitigate and adapt to climate change.

3

Climate has set the trajectory – Nature is following the same trajectory at a faster pace.

Climate Risk Services

Thank you!

Building a climate-smart, net zero and nature-positive future together.

www.climateriskservices.com