

# Sustainable Finance & Biodiversity

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# CLIMATE RISKS: 1.5°C vs 2°C GLOBAL WARMING

Based on the IPCC Special Report on Global Warming of 1.5°C and Special Report on Oceans and Cryosphere in a Changing Climate.

## EXTREME WEATHER

1.5°C

100% increase in flood risk

2°C

170% increase in flood risk

## PEOPLE

1.5°C

9% of the world's population (700 million people) will be exposed to extreme heat waves at least once every 20 years

2°C

28% of the world's population (2 billion people) will be exposed to extreme heat waves at least once every 20 years



## SPECIES

1.5°C

6% of insects, 8% of plants and 4% of vertebrates will be affected

2°C

18% of insects, 16% of plants and 8% of vertebrates will be affected

## SEA-LEVEL RISE

1.5°C

10cm higher at 2°C than at 1.5°C in 2100. This difference would expose up to 10 million more people to risks.

## ARCTIC SEA ICE

1.5°C

Ice free summers in the Arctic at least once every 100 years

2°C

Ice free summers in the Arctic at least once every 10 years

## CORAL BLEACHING

1.5°C

70% of world's coral reefs are lost by 2050

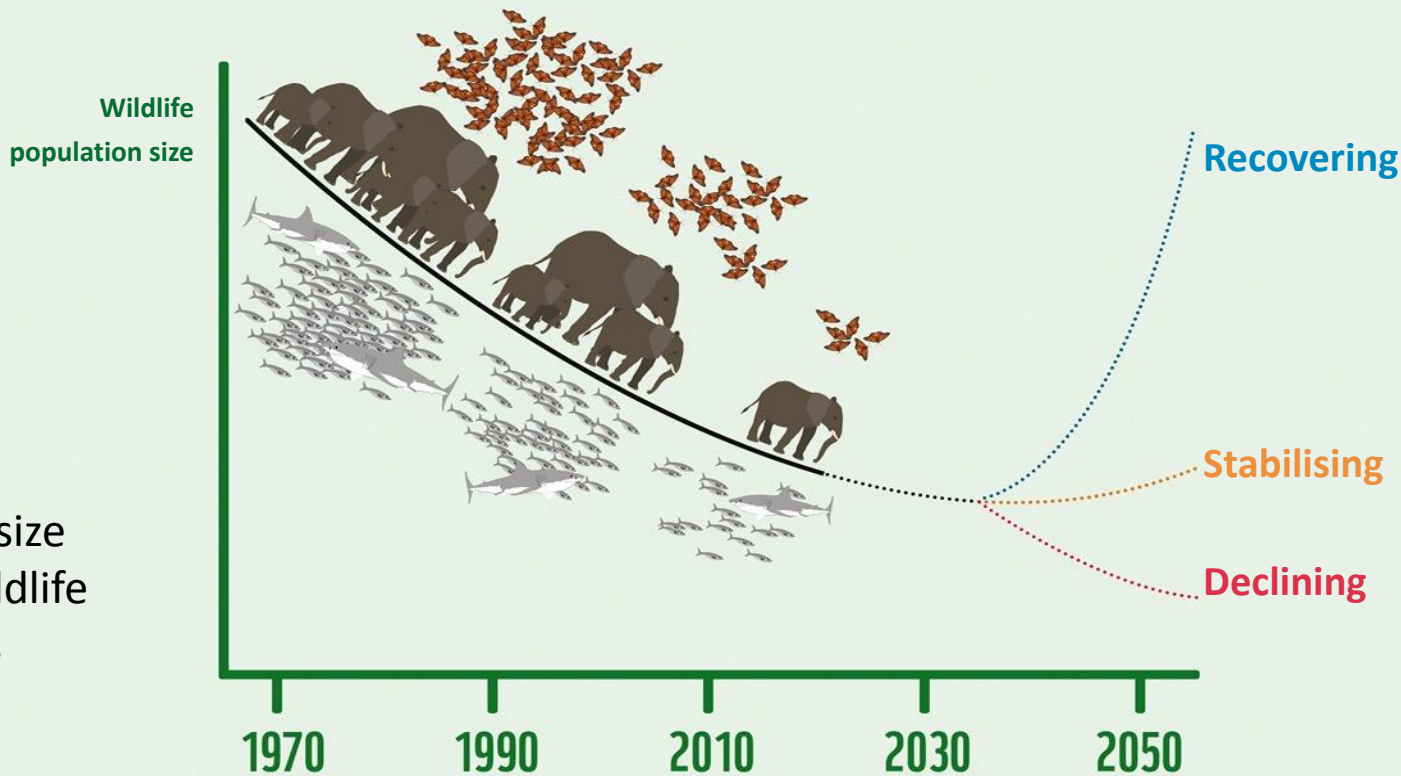
2°C

Virtually all coral reefs are lost by 2050

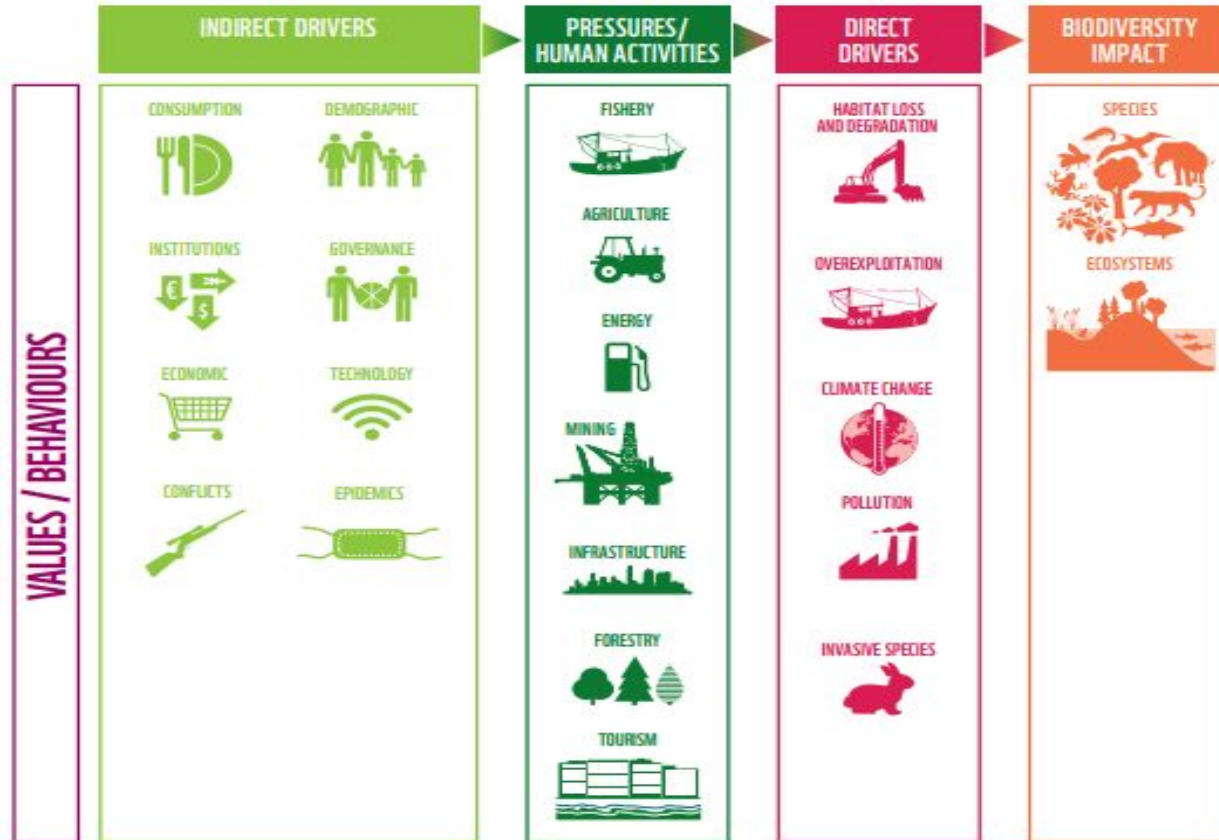
# Bending the curve of nature loss

**69%**

decline in  
average  
population size  
in global wildlife  
populations  
since 1970.



# Threats to Nature and Drivers and Pressures Behind Them





# NATURE HAS HELPED SLOW GLOBAL WARMING

Nature is our climate's secret ally. For decades, ecosystems have absorbed more than half of the carbon dioxide mankind pumped into the atmosphere due to natural sinks growing along with emissions. Safeguarding and restoring nature leads to greater, and more secure, carbon stores.

## 59 BILLION TONNES

global net man-made greenhouse gas emissions in 2019

## 46%

man-made carbon dioxide emissions accumulated in the atmosphere, leading to global warming

## 54%

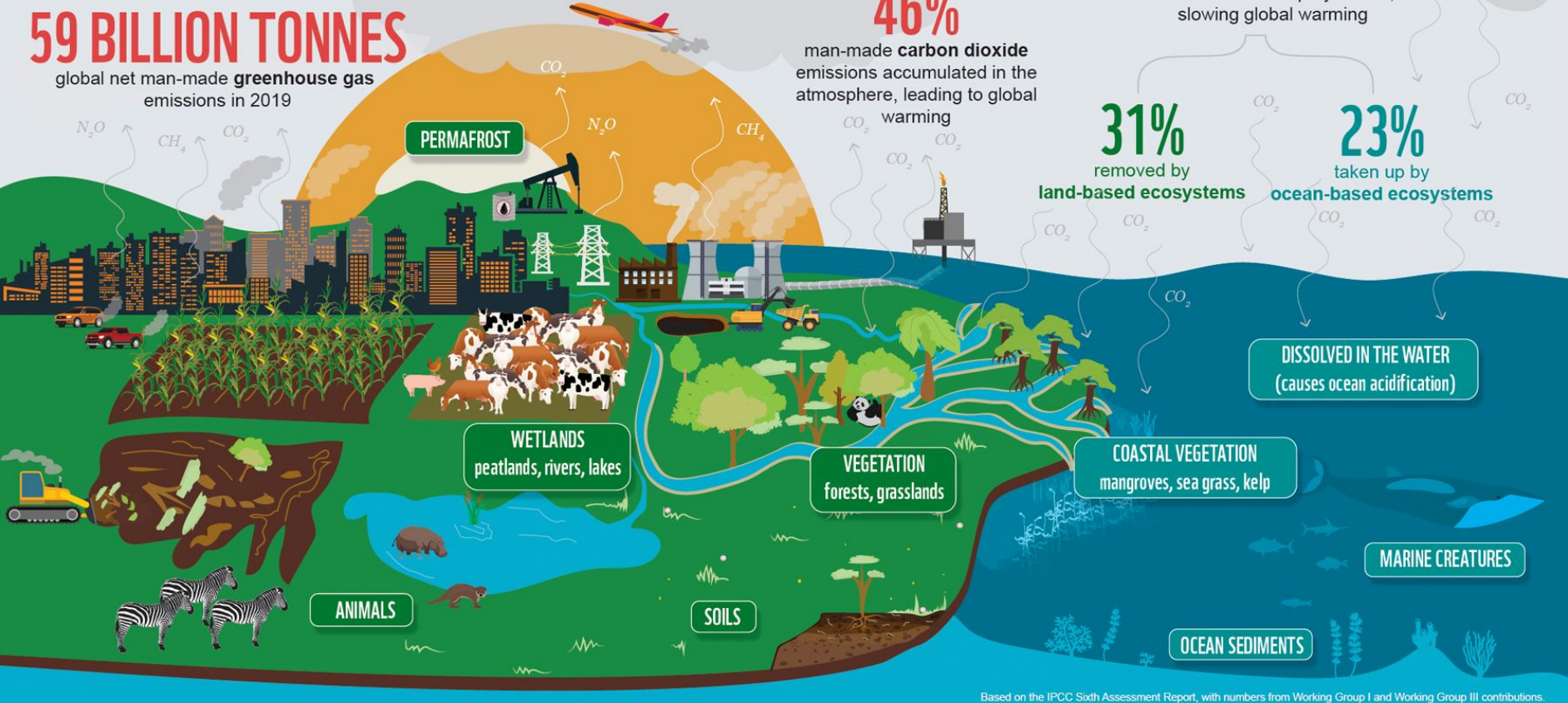
man-made carbon dioxide emissions taken up by nature, slowing global warming

## 31%

removed by land-based ecosystems

## 23%

taken up by ocean-based ecosystems



Based on the IPCC Sixth Assessment Report, with numbers from Working Group I and Working Group III contributions.



# INTERACTIONS BETWEEN CLIMATE CHANGE, NATURE AND PEOPLE

## Climate change is a threat to nature

Global warming of 1.1°C has already caused dangerous and widespread disruption to ecosystems and species, including from worsening extreme events and sea-level rise

## Nature is a powerful ally in the fight against climate change

Land and ocean ecosystems can act as carbon sinks, which helps regulate the climate and slow down global warming

## NATURE

## CLIMATE CHANGE

## Nature loss amplifies global warming

Ecosystem conversion, such as deforestation, releases carbon dioxide into the atmosphere

## Climate change affects people

Melting ice, rising sea levels, worsening extreme weather events and decreased food security are some of the impacts and future risks

## People must safeguard and restore nature

30% to 50% of Earth's land, freshwater, and ocean areas must be conserved to maintain biodiversity and ecosystem services on a global scale

## Human activities drive nature loss

Humans drive climate change-related environmental changes and modify natural habitat for food production

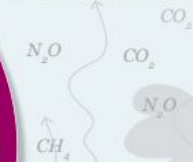
## PEOPLE

Global warming is caused by burning fossil fuels, destroying nature and unsustainable food systems

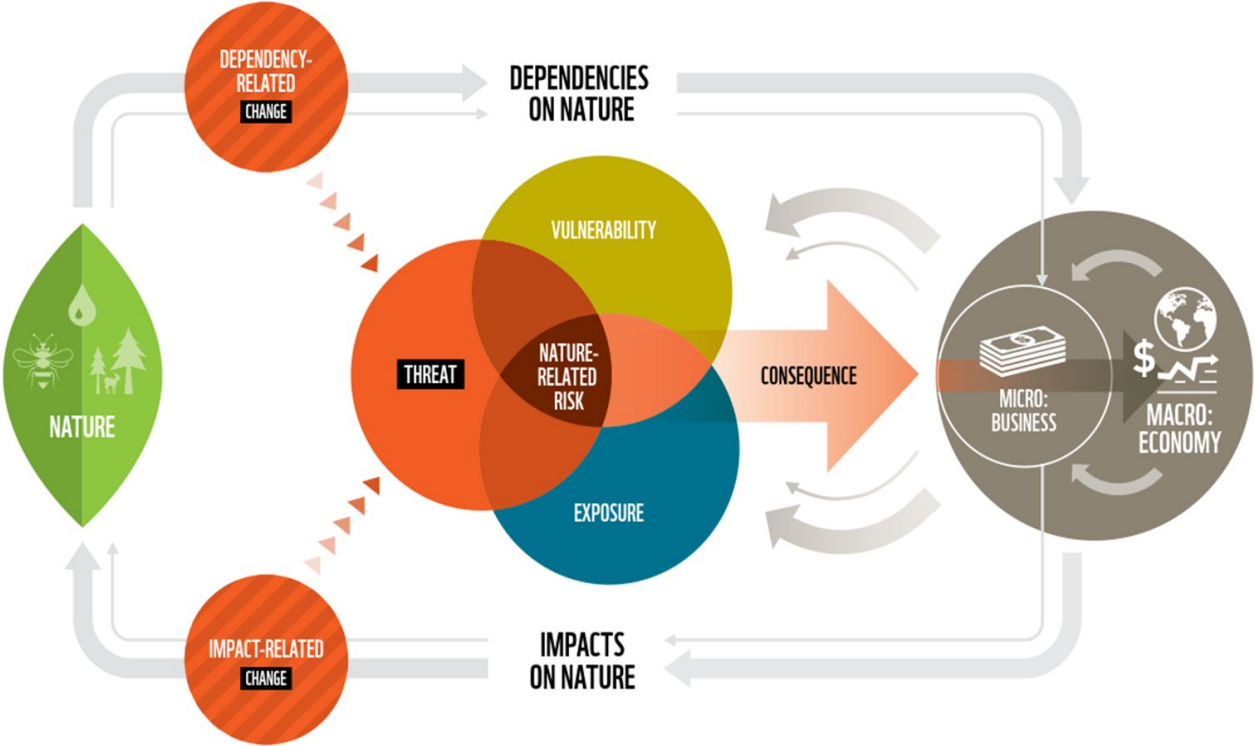
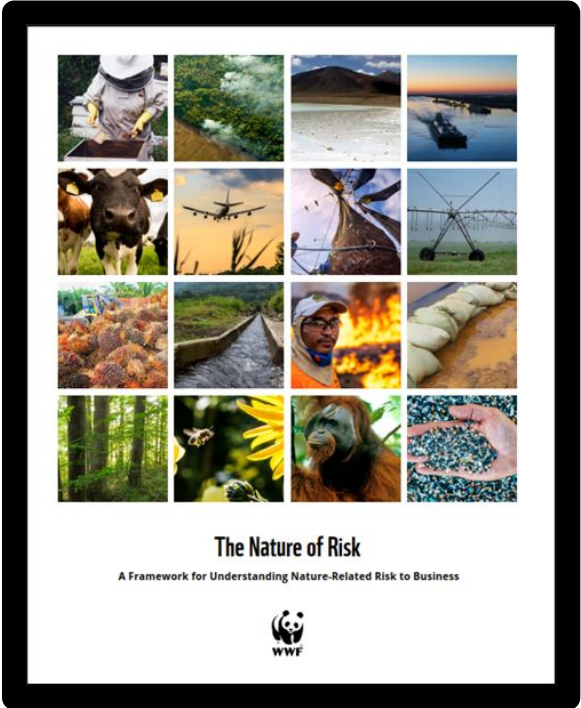
Rapid, deep and sustained cuts to greenhouse gas emissions across all sectors are needed

## Compromising nature compromises people

When nature is intact, it can provide more ecosystem services such as carbon storage, climate regulation, and enhanced resilience to climate hazards



# Nature Loss is a Business Risk



Source: *The Nature of Risk: a Framework for Understanding Nature-Related Risk to Business*, WWF, 2019

# Nature Loss is a Financial Risk



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- Increased cost of capital
- Write-downs and write-offs
- Increased insurance claims
- Higher premiums
- Increased risk of default
- Loss of investment value due to reputational risks
- Changes in market value
- Stranded assets as policy changes to address biodiversity loss

Source: *Nature is Too Big to Fail*, PwC and WWF, 2020



# THE BIG NATURE TURNAROUND

Repurposing \$7 trillion to combat nature loss



## NEGATIVE

Almost \$7trillion

per year

### PRIVATE

\$5trillion

per year

140x bigger  
than private finance  
to nature-based  
solutions

5% of global GDP

### PUBLIC

\$1.7trillion

per year

10x more  
than public finance  
for nature-based solutions

55% increase  
from 2021

## POSITIVE

\$200billion

per year invested in nature-based solutions

Needs to triple  
to \$542billion by 2030

### PRIVATE

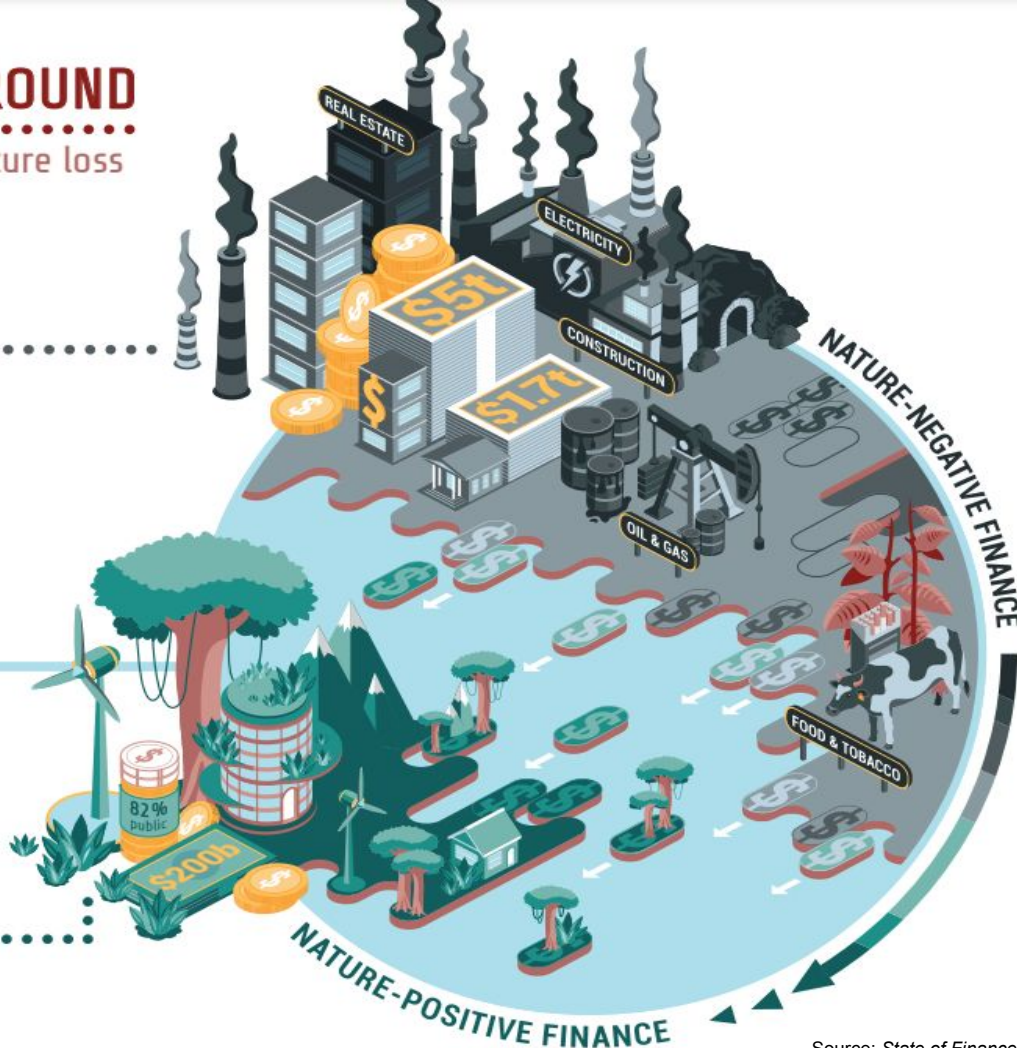
\$35billion

per year = 18%

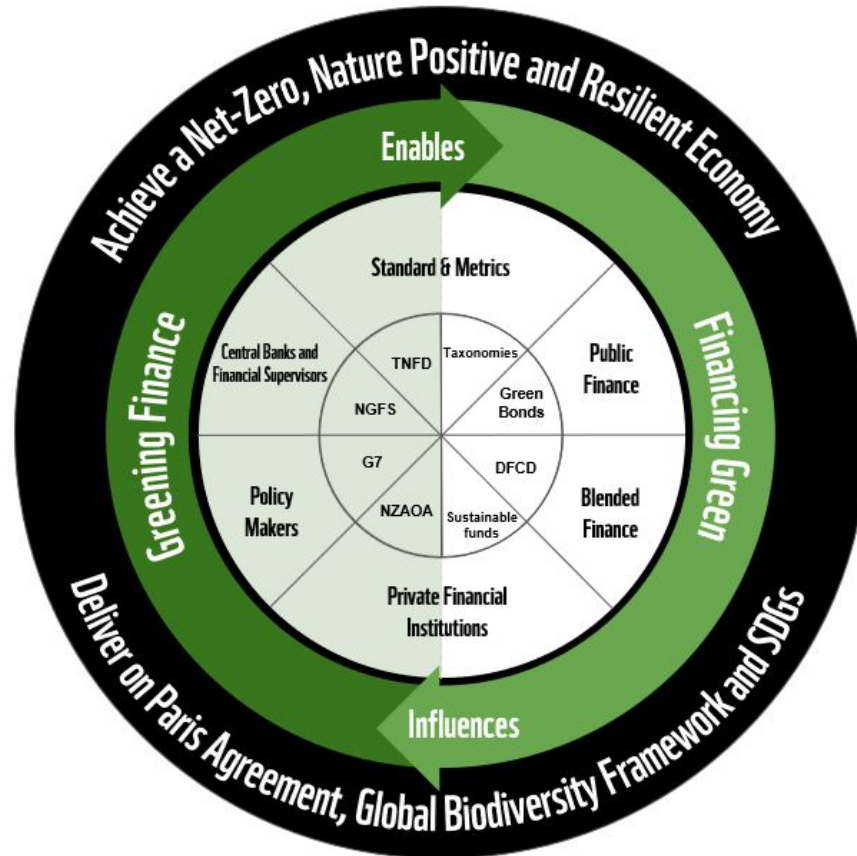
### PUBLIC

\$165 billion

per year = 82%



# Finance Practice Strategy





**Thank you!**