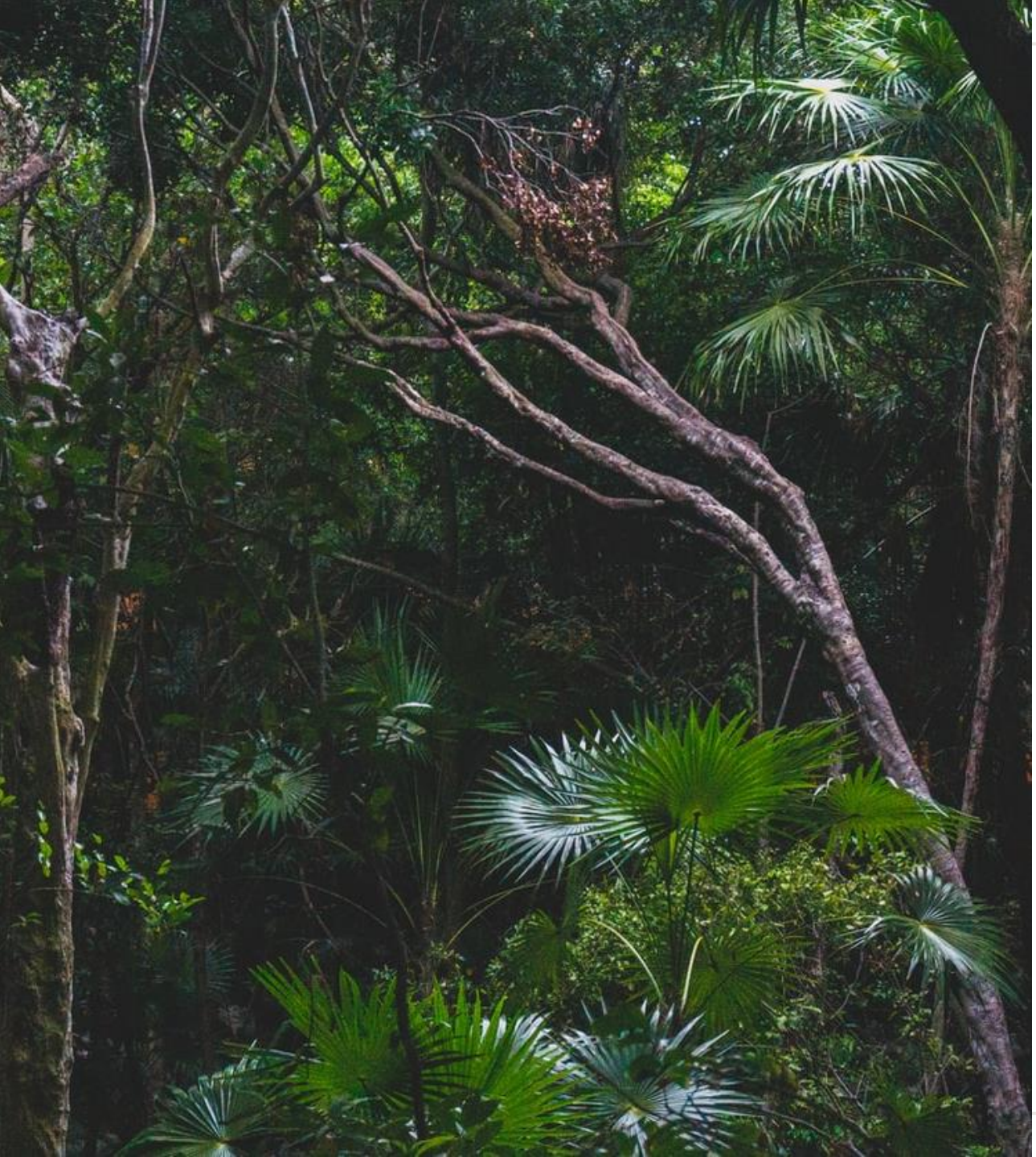


proteus

# Proteus Horizon Scan webinar

## United Nations Decade on Ecosystem Restoration 2021-2030

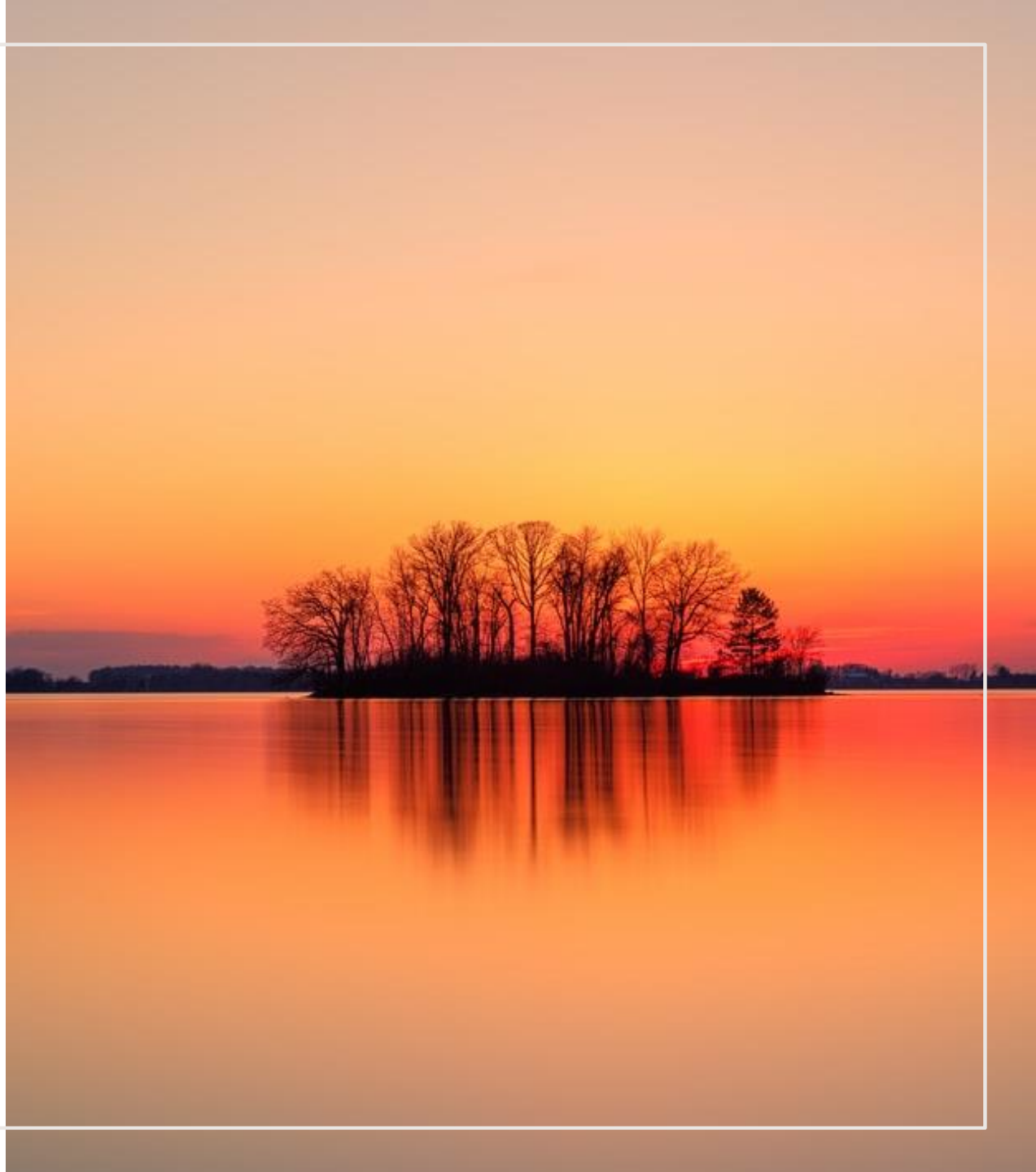
13TH MAY 2021

# PROTEUS HORIZON SCAN WEBINARS

A series of webinars for Proteus Partners sharing information and insights into the latest trends and developments in biodiversity and ecosystem services policy, initiatives, data and tools.

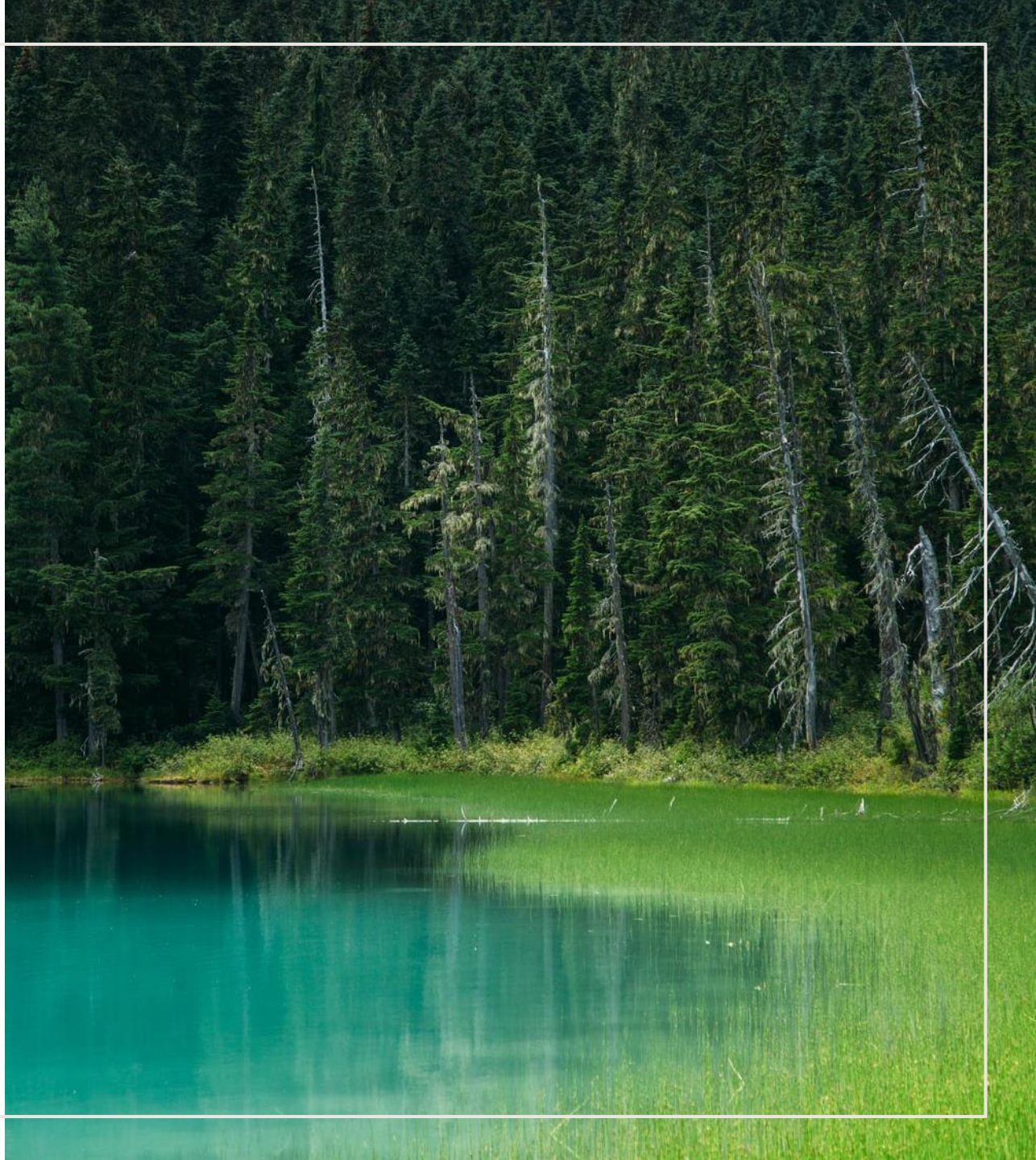
# LOGISTICS

- **Scheduling:** AM & PM sessions
- **Rules:** Chatham House rule for discussion, but presentation is recorded
- **Topics**: Your suggestions are welcome!



# OVERVIEW

- Introduction to the UN Decade on Ecosystem Restoration
- Existing tools and initiatives
- Opportunities for engagement and timeline
- Feedback & Discussion

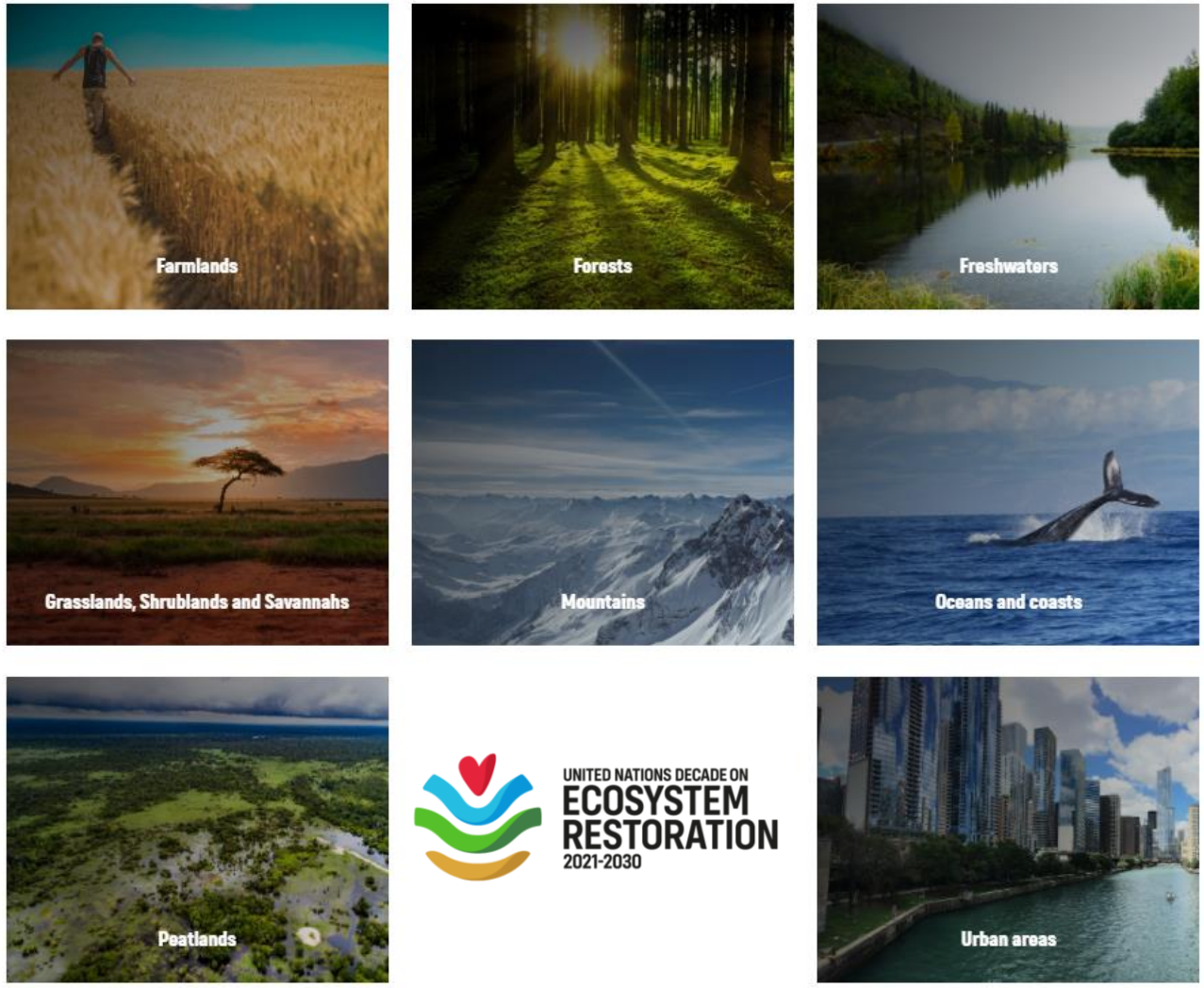


# Introduction to the UN Decade on Ecosystem Restoration

Hazel Thornton, Programme Officer ♦ Raquel Agra, Programme Officer

# UN DECADE ON ECOSYSTEM RESTORATION

- Adopted 1 March 2019 (UNGA Resolution A/RES/73/284)
- All terrestrial, freshwater and marine ecosystems
- Builds on existing commitments
- FAO and UNEP leading implementation



# KEY OUTCOME

Enhance global, regional, national and local commitments and **concerted action by governments, the private sector** and **civil society** to **prevent**, **halt** and **reverse** the degradation of ecosystems


Source: Natural Capital Coalition (2021)

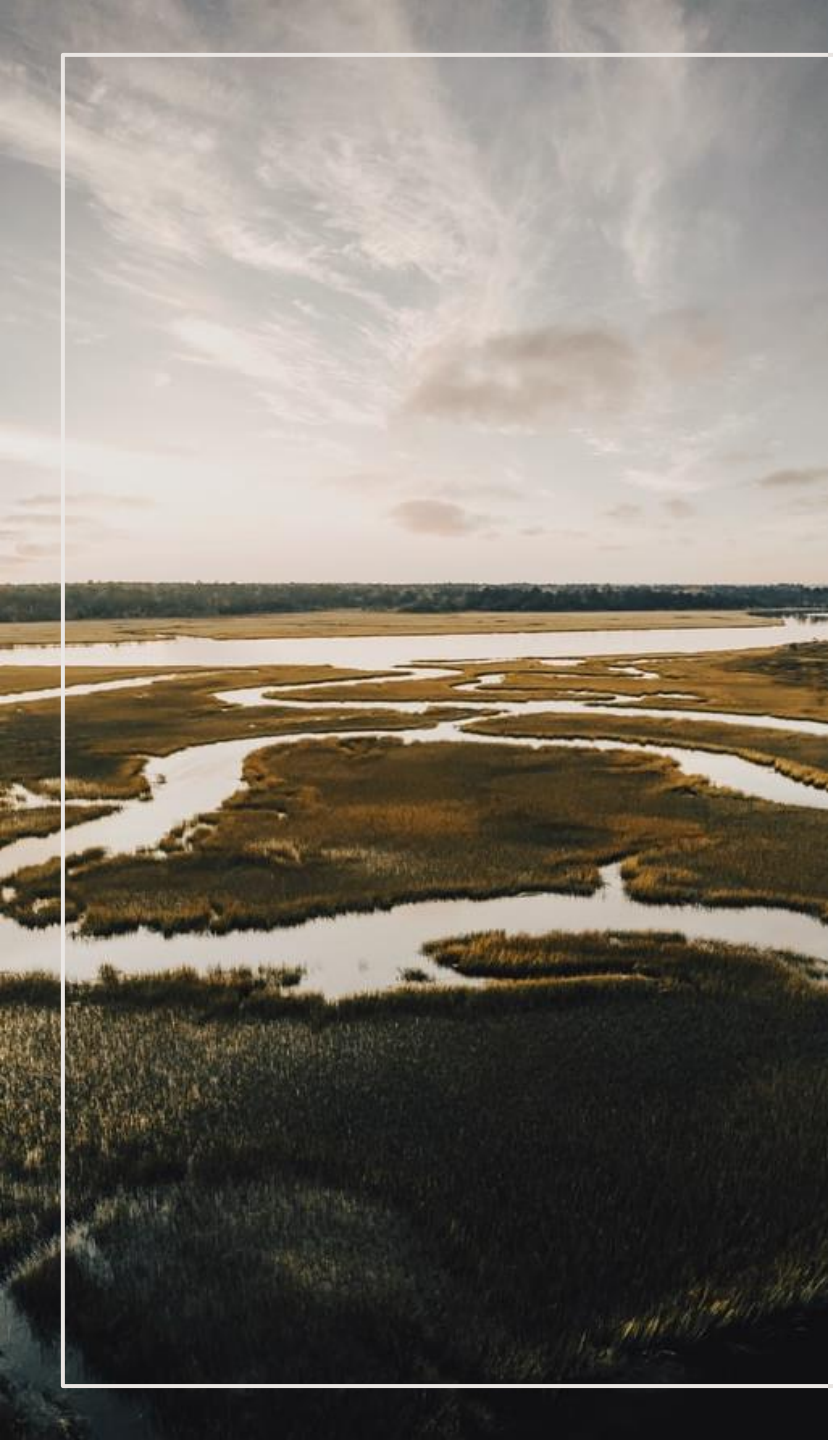
# THE NEED FOR ACTION

- Ecosystem Degradation:
  - Negatively affecting well-being of **3.2 billion people**
  - Loss of biodiversity and ecosystem services = **10% of global GDP**
- '**Green Recovery**' from COVID-19 crisis and create green jobs through a restoration economy

Forests: 420 M ha lost since 1990

Wetlands: 50% lost in last century

Decline of coral reefs and seagrass beds



# WHAT WILL RESTORATION ACHIEVE?

- **Biodiversity** conservation
- **Climate change** mitigation and resilience
- **Productive landscapes/seascapes**
- **Economic return**

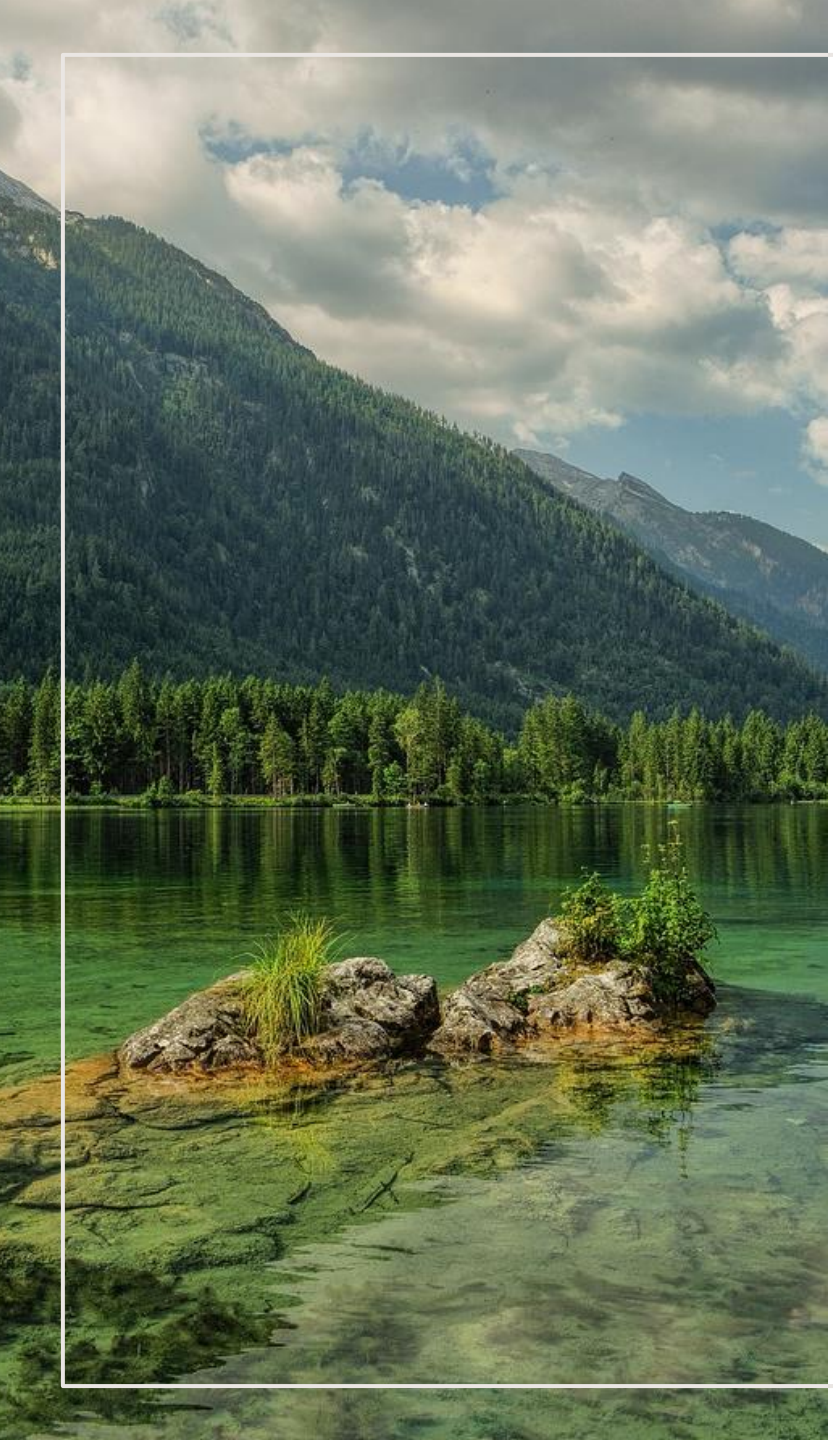
  ✓ Cost/benefit ratio: 1 / 10

  ✓ Cost of action *vs* inaction: 1 / 3

  ✓ 350 Mha hectares degraded ecosystems:

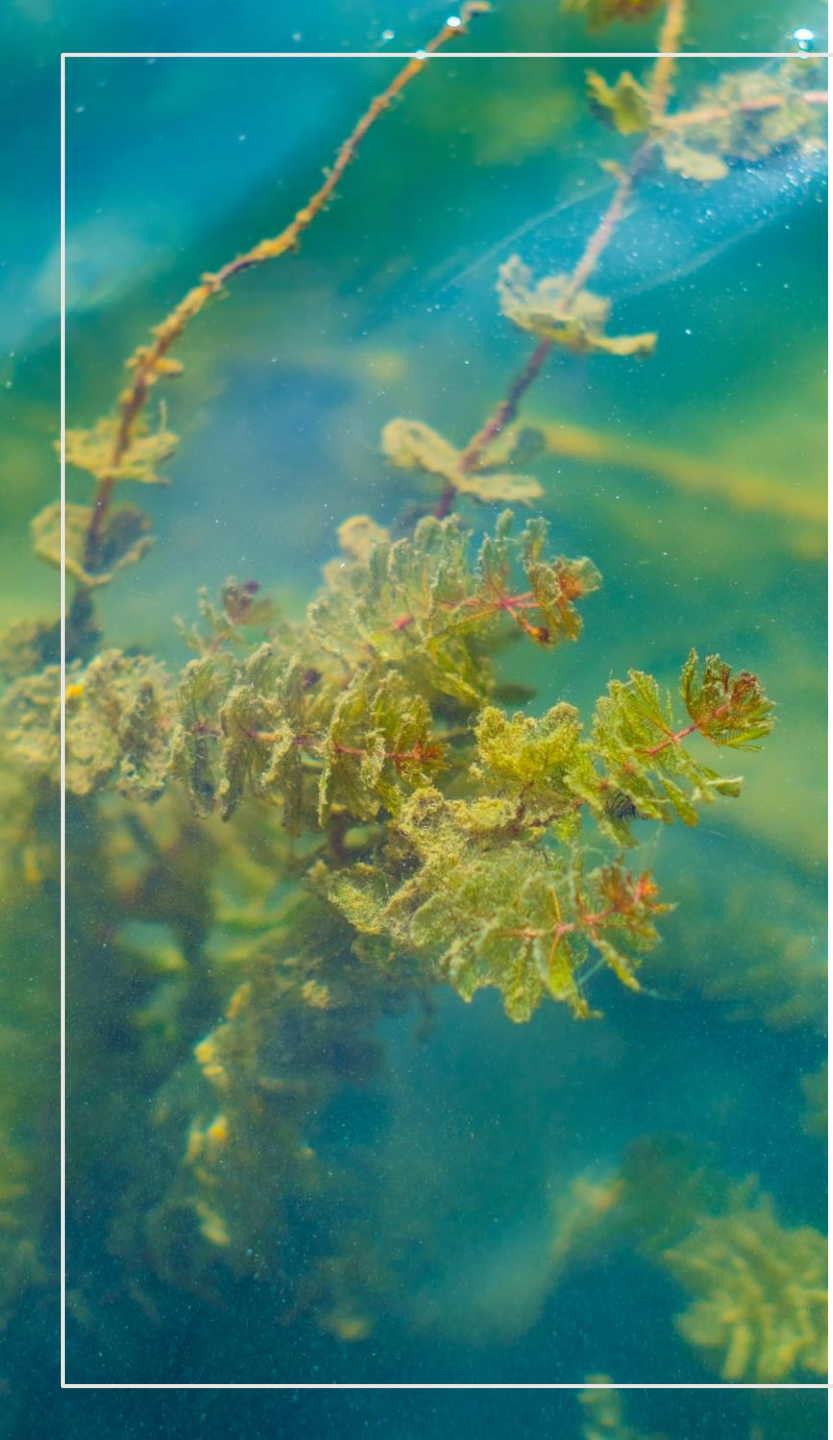
  - **$9 trillion** in ecosystem services

  - removal of **13-26 gigatons** GHG



# NOT STARTING AT ZERO

- Global communication efforts around REDD+, Nationally Determined Contributions (NDCs), SDGs 6, 14, 15, Bonn Challenge, landscape approach have highlighted importance of ecosystems
- Climate and environmental awareness at new high in many countries
- Important public and private commitments have been made to halt and reverse degradation



# HOW THE DECADE WILL WORK

## Pathway 1: Global movement

- Scaling restoration initiatives

## Pathway 2: Political will

- Developing legal and policy frameworks

## Pathway 3: Capacity

- Building technical capacity of practitioners
- Undertaking scientific research

# WHO IS GOING TO BE INVOLVED?

## Private Sector

Including:

Restoration Seed Capital Facility

TERRA MATCH

UN-REDD PROGRAMME

1t.org

afr100

BONN CHALLENGE

Cities4Forests

ETH zürich | CROWTHER LAB

GLOBAL MANGROVE ALLIANCE

AMERICAN FORESTS

Initiative 20x20

ECCA30

THE GLOBAL PARTNERSHIP ON FOREST AND LANDSCAPE RESTORATION

GREAT GREEN WALL

COMMONLAND

4 RETURNS FROM LANDSCAPE RESTORATION

PLANT FOR THE PLANET

JUSTDIGGIT

Global Landscapes Forum

IUCN

SER SOCIETY FOR ECOLOGICAL RESTORATION

WORLD ECONOMIC FORUM

WORLD BANK GROUP

Convention on Biological Diversity

United Nations Convention to Combat Desertification

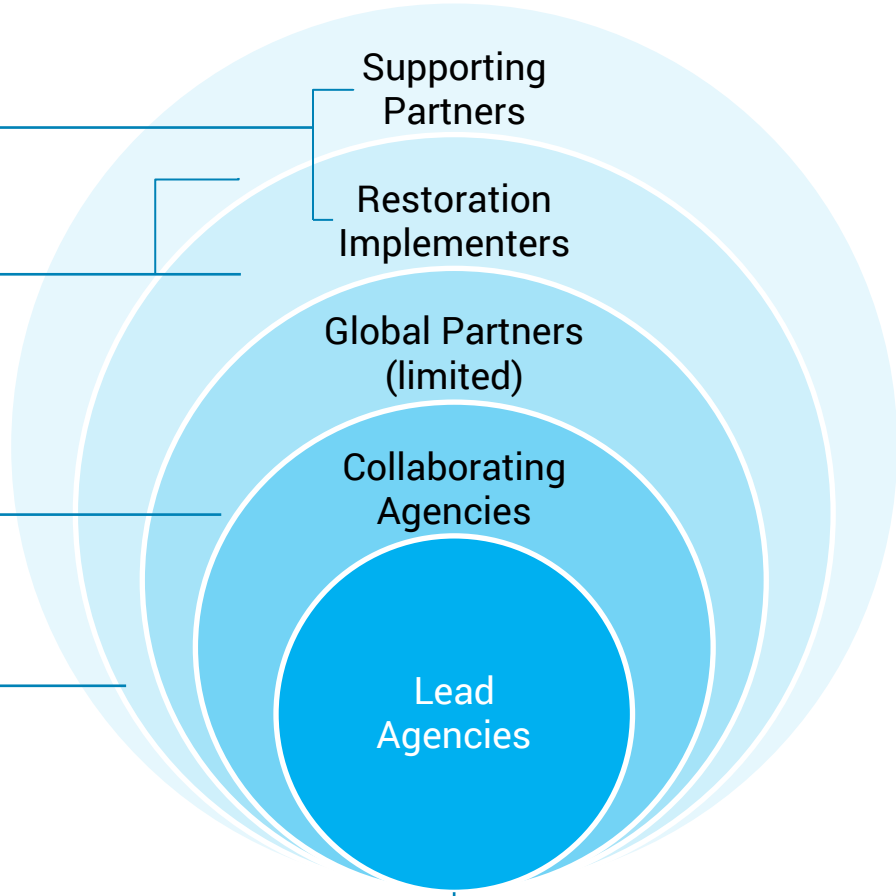
United Nations Framework Convention on Climate Change

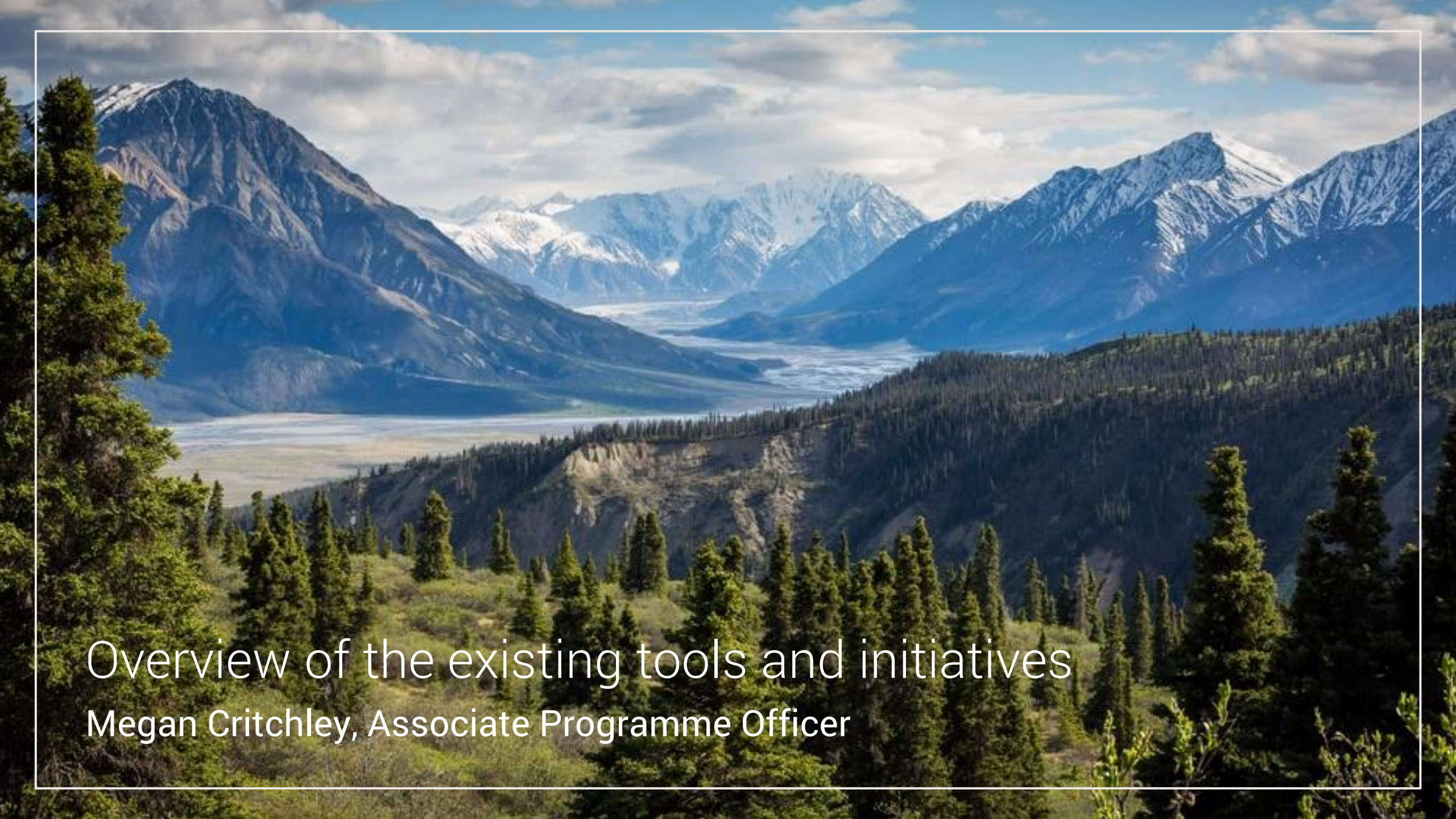
UNECE

UNESCO

UN environment programme

Food and Agriculture Organization of the United Nations





# Overview of the existing tools and initiatives

Megan Critchley, Associate Programme Officer

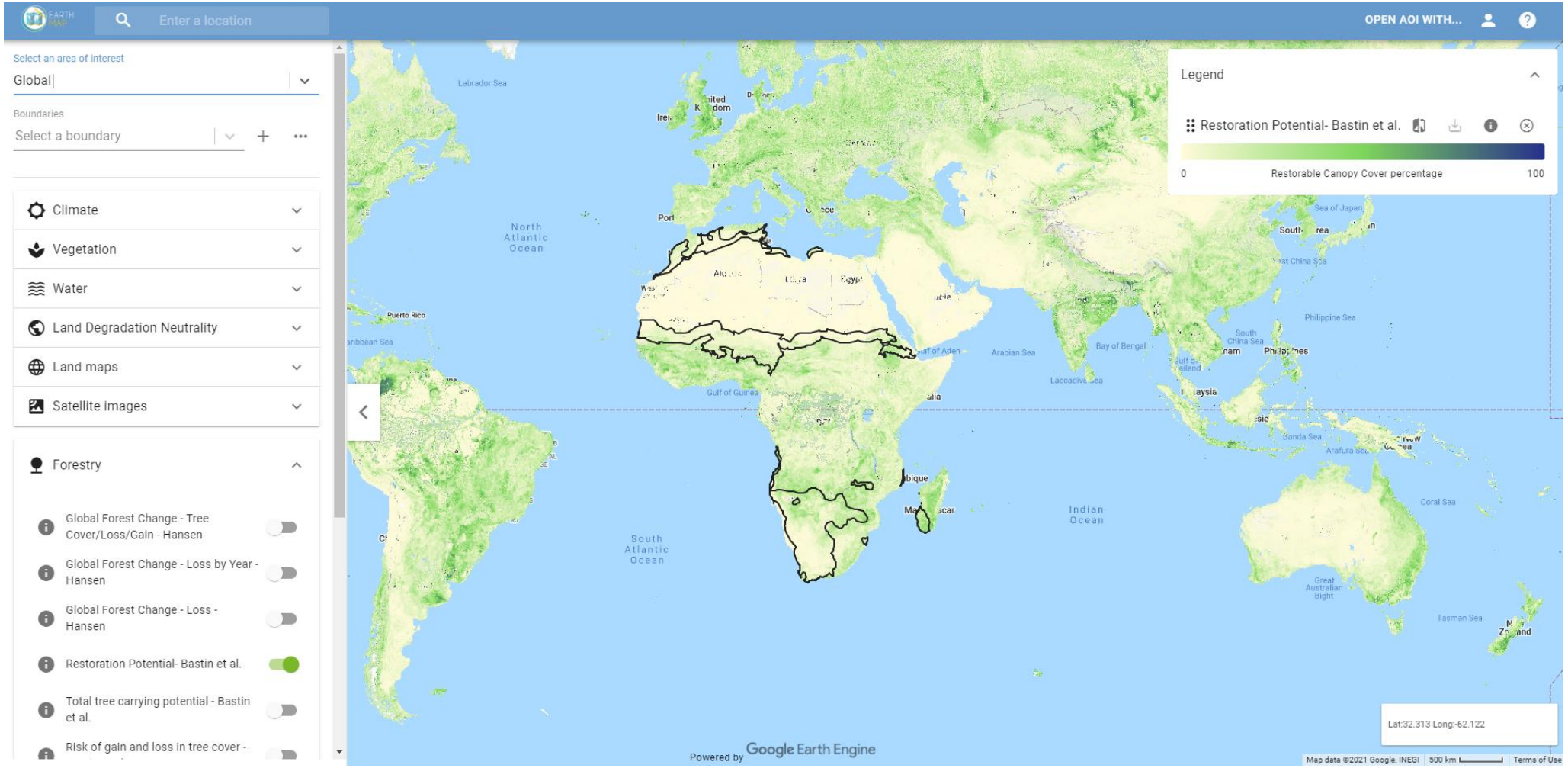
# ENSURING SUCCESS

- Degradation and land use change: **can** it be restored?
- **Have the causes of degradation been addressed,** or can they be? **Will restoration benefit and meet the needs of local communities**?
- Will the proposed restoration **maximise co-benefits** alongside carbon sequestration?

  E.g. biodiversity conservation, water purification, climate resilience, erosion control
- **Will there be any negative impacts**? E.g. economic impacts on local communities

Taking these into account requires **communication**, **knowledge sharing**, technological improvements to **data and tools** as well as **directing funds to the right places**.

# WHERE TO RESTORE?




Source: EarthMap

# WHERE TO RESTORE AND MONITOR RESTORATION?

## Spatial Datasets

GLOBAL MANGROVE WATCH

planet.

NATURE MAP EXPLORER

esa

NASA

Copernicus

GLOBAL FOREST WATCH

## Analysis tools and platforms

TRENDS.EARTH
tracking land change
from Conservation International

R

InVEST
integrated valuation of ecosystem services and tradeoffs

CFA
COOL FARM ALLIANCE

ARIES

RESTOR

FLINTPRO

Google Earth Engine

SATELLIGENCE

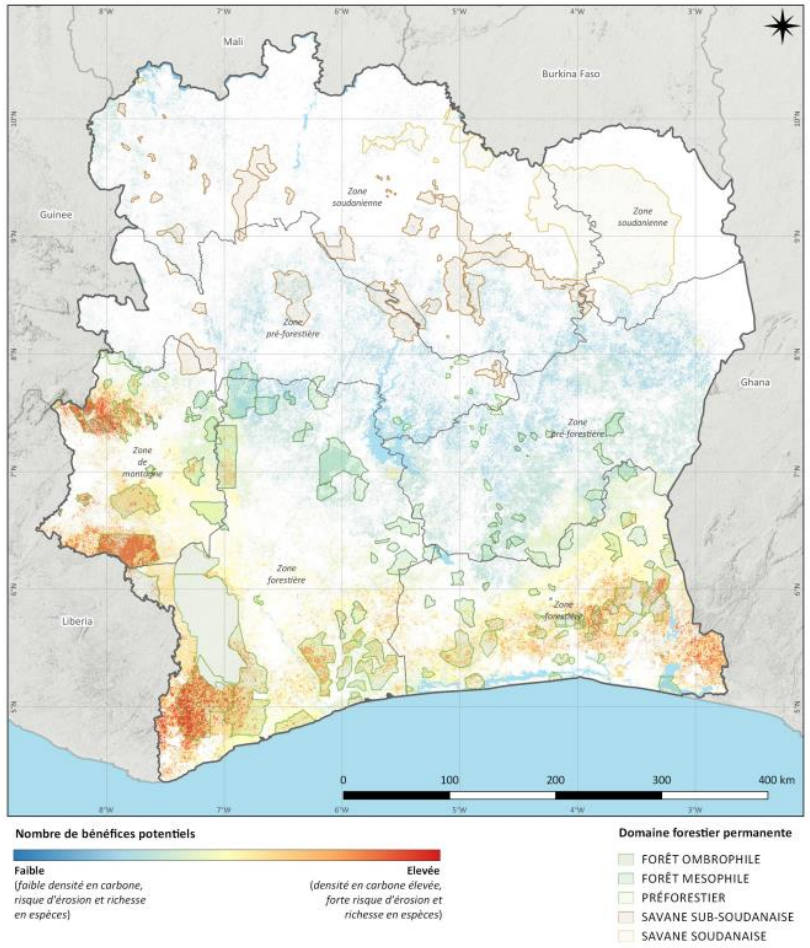
STARLING

Earth Map

SEPAL

Collect Earth

# ASSESSING THE BENEFITS AND COSTS OF RESTORATION




Source: Maukonen et al. 2017

## Biodiversity Impact

- List of species protected
- Red List Classification
- Reduction in Extinctions

## Climate Change Impact

- Tonnes of CO2 Sequestered per hectare restored

## Opportunity Costs

- Value of agricultural production displaced ($/hectare)

## Provisioning Services

- Clean water
- Fuelwood production
- Crop production
- Medicine

## Regulatory Services

- Flood risk mitigation
- Soil erosion prevention

## Socio-economic benefits

- Job creation
- Nature-based tourism

# RESTORATION ON THE GROUND

# INCENTIVISING RESTORATION

| Initiative | Description |
| --- | --- |
| Global Mangrove Alliance | Increase global mangrove cover by 20% by 2030. |
| Blue Carbon Initiative | Mitigating climate change through the conservation and restoration of coastal and marine ecosystems |
| Global Peatlands Initiative | Conservation restoration and sustainable management of peatlands |
| Bonn Challenge | Target of 350 Mha forest and landscapes restored by 2030 |

# FUNDING RESTORATION

- Transferring this to action on the ground requires practitioners and funders to come together.

- Established and emerging **funding platforms** provide a centralised approach to connect funders with projects on the ground.

The Restoration Initiative


UN-REDD PROGRAMME

TERRA MATCH

The Land Accelerator

World Economic Forum | 1t.org

World Resources Institute | afr100 | Fledge

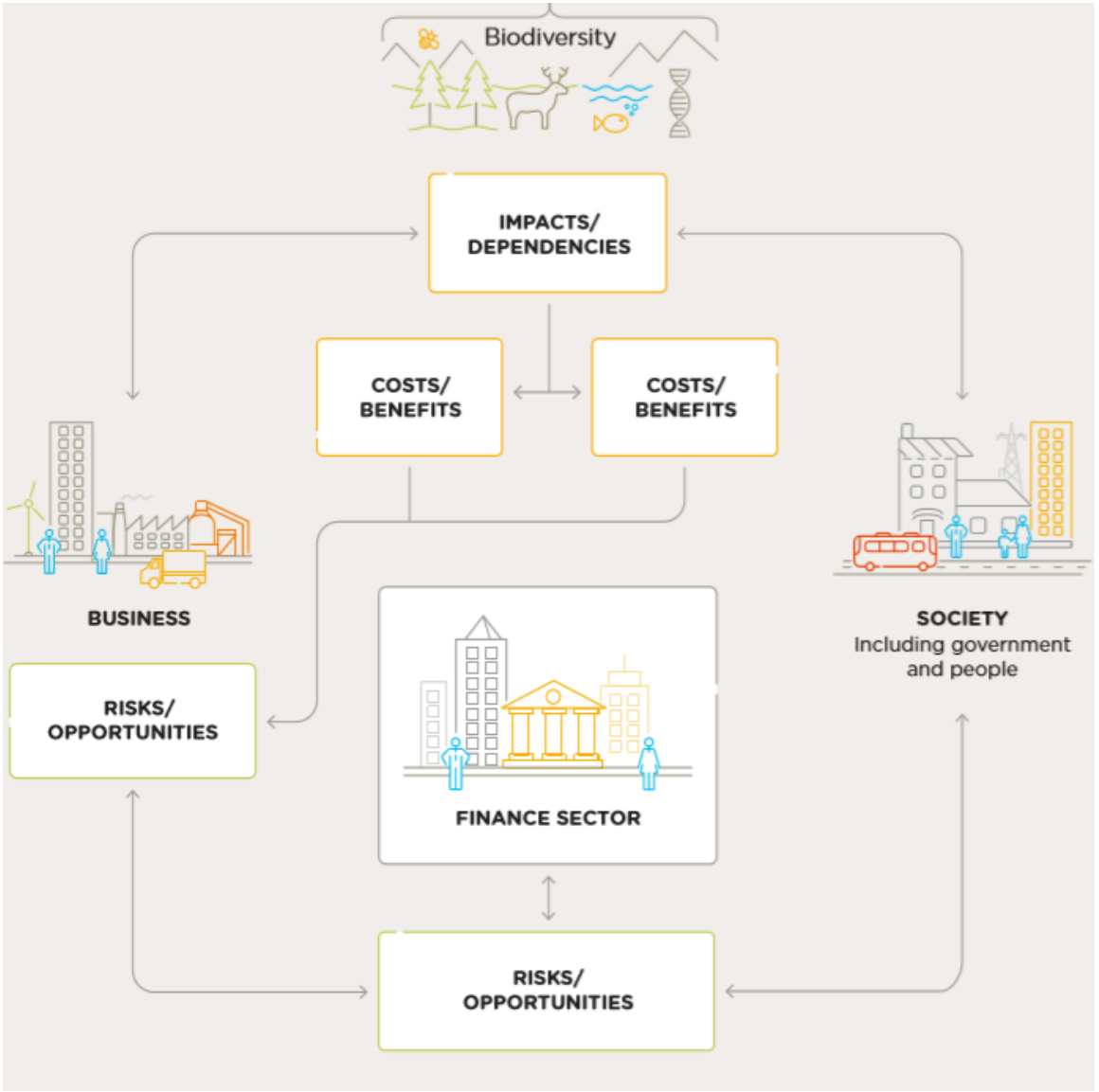
# Opportunities for engagement in the UN Decade

Hazel Thornton, Programme Officer ♦ Raquel Agra, Programme Officer

# NATURE RELATED RISKS

- World Economic Forum's Global Risks Report 2020 states that the top 5 risks are environmental

- Biodiversity loss is the 4th most likely and 3rd most impactful risk, which has risen year on year



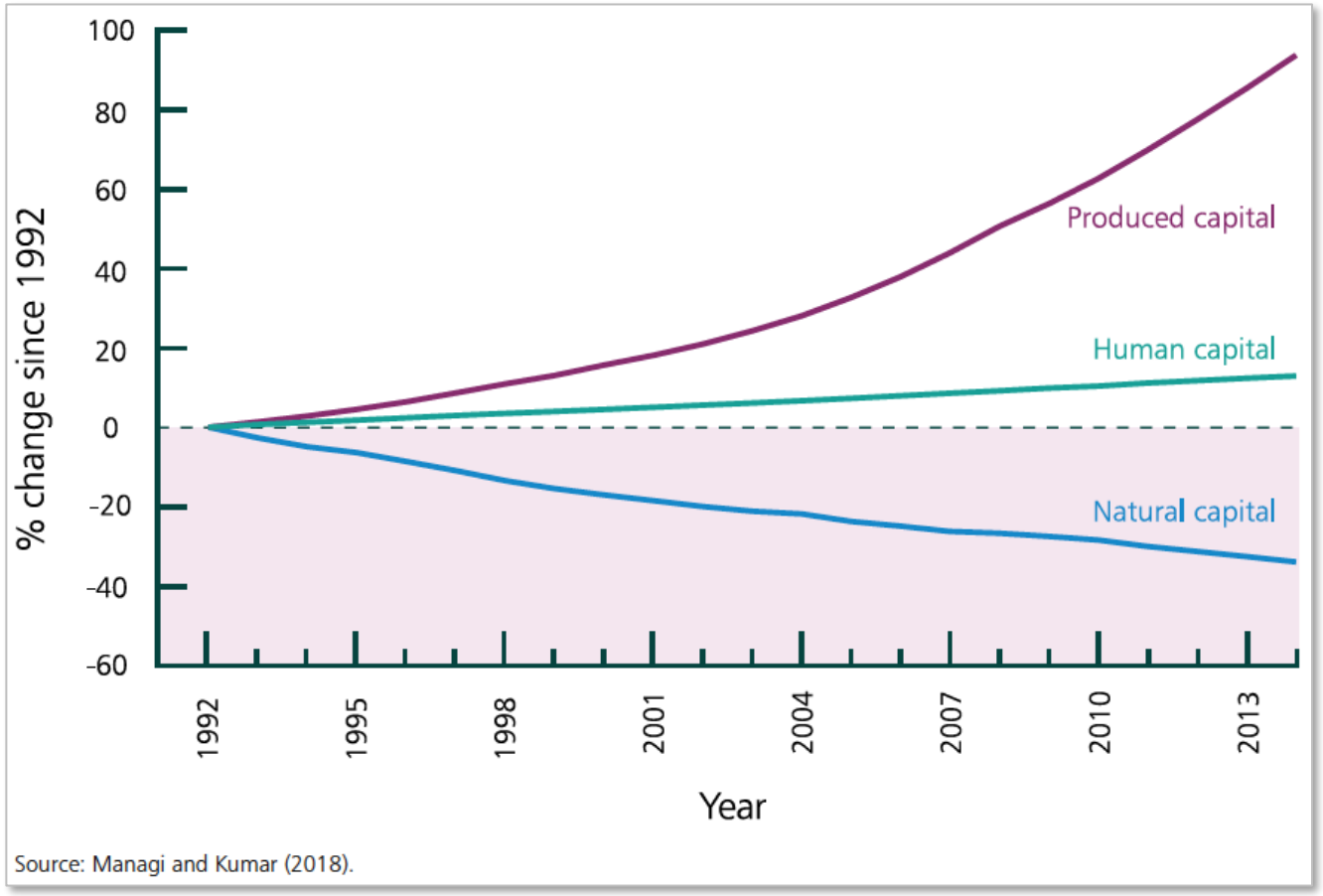

Source: Natural Capital Coalition (2021)

Source: The Future of Nature and Business WEF Report, 2020

# THE COST OF RESTORATION

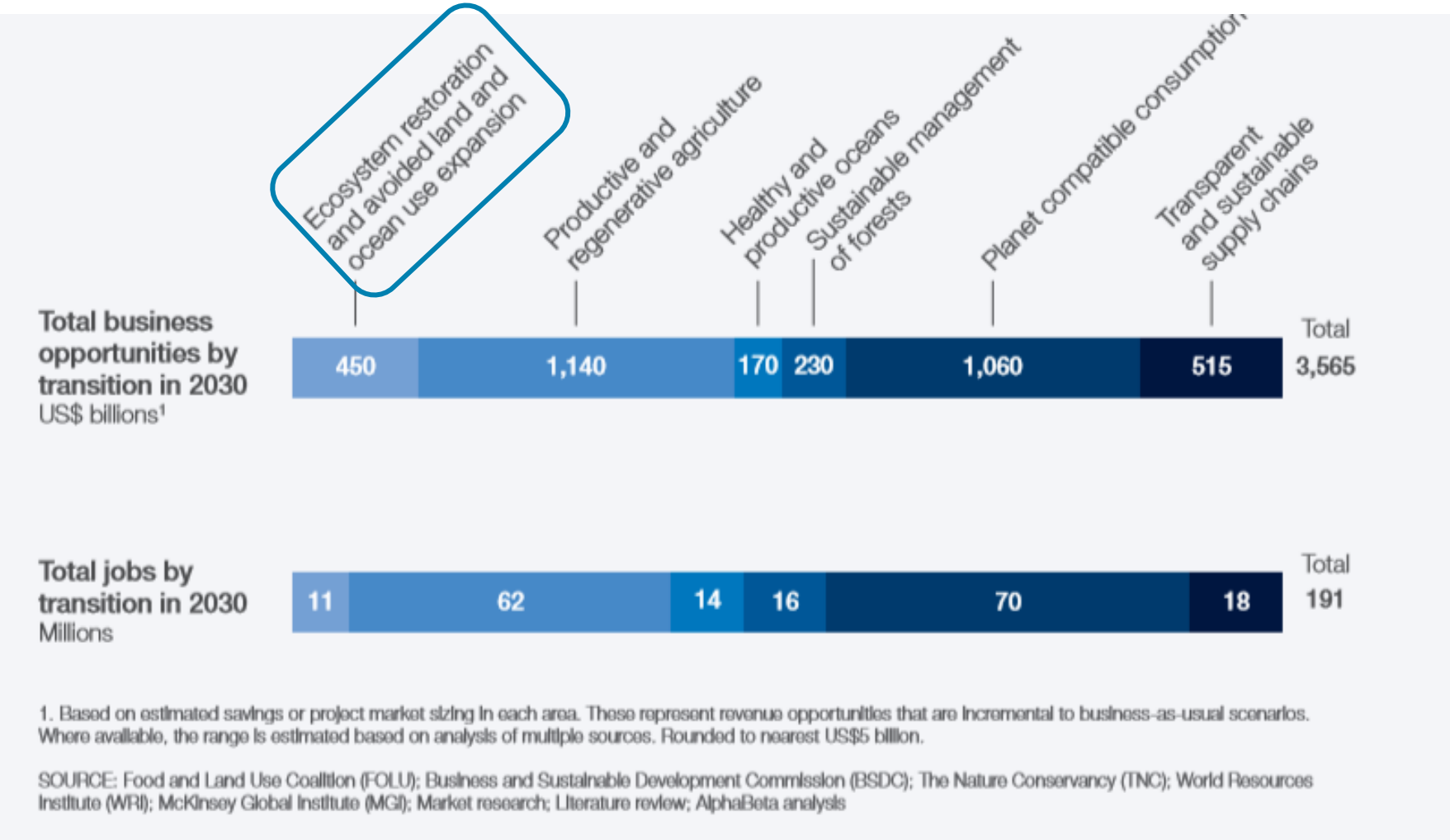
Immediate action towards stabilising biodiversity intactness at current levels by 2050, would cost approximately US$7 trillion dollars (~8% of global GDP).

But, delaying action by 10 years would more than double the cost to approximately US$15 trillion (~17% of global GDP)




Source: Dasgupta Review, 2021

# DEMONSTRATION OF GAINS



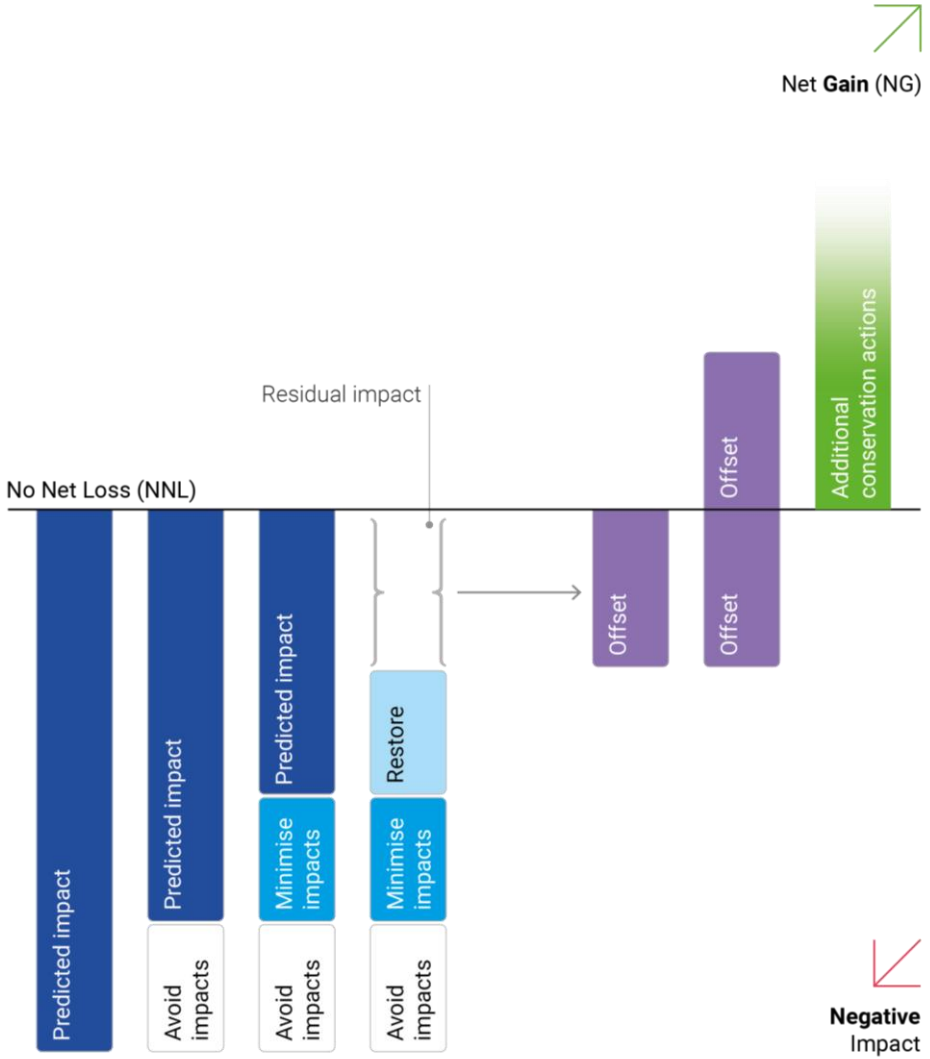

Source: The Future of Nature and Business WEF Report (2020)

# RESTORATION AS PART OF IMPACT MITIGATION

Sequential steps to minimise negative impacts on biodiversity:

1. Avoidance
2. Minimisation
3. Restoration
4. Offsetting

Aim to achieve No Net Loss or Net Gain



# ADDITIONAL BENEFITS AND FINANCIAL RETURN

Restoration activities have great potential to generate benefits and financial return:

- Sustainable production of food and fibres – Regenerative agriculture, conservation agriculture, agroecology; agroforestry; forestry
- Conservation and restoration activities linked to PES
  - ✓ Carbon sequestration
  - ✓ Watershed services
  - ✓ Other ecosystem benefits
- Other businesses (green infrastructure; ecotourism; access to energy)

Source: GLF White Paper Mobilising private capital for land and ecosystem restoration (2019)

# COLLECTIVE PRIVATE SECTOR RESTORATION EFFORTS – AN EXAMPLE

- Initiative: Green-Blue Water Coalition
- Nationally Determined Contribution (NDC) to restore 12 million ha
- Several companies collaborating on multiple projects using restoration
- Projects delivered environmental and social benefits and reduced risks
- Decreased business risks associated with water scarcity

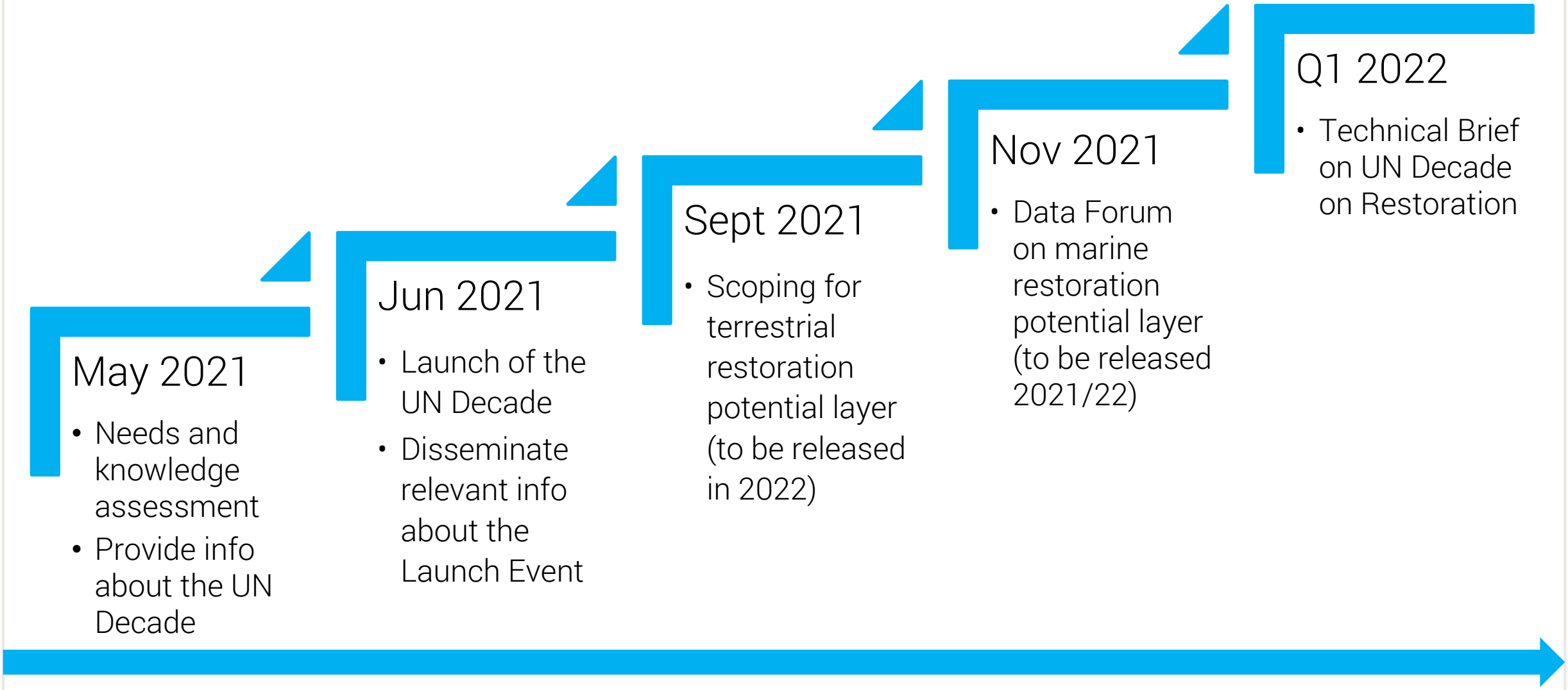

# PUBLIC-PRIVATE PARTNERSHIPS FOR RESTORATION - AN EXAMPLE

- Partnership between Hanson and Western Australia Government's Botanic Gardens and Parks to tackle biodiversity impacts of sand extraction
- Postmining restoration of Banksia woodland via innovative research program (> 20yrs)
- Success of the research partnership has been a demonstration of innovation, leadership and environmental excellence

# SUMMARY

- The private sector are important actors for implementing and financing restoration
- Restoration can mitigate risks and deliver financial gains, while delivering multiple benefits to society
- Businesses can engage in public-private and multi-stakeholder partnerships for restoration to upscale successful efforts
- Contributes towards global and national commitments in the Agendas of Climate Change, Biodiversity, Sustainable Development

# THE TIMELINE FOR FURTHER WORK IN PROTEUS




Thank you


# DISCUSSION POINTS

- Are restoration activities included in your corporate strategies (e.g. beyond end-of-life sites / decommissioning)? How could the restoration agenda contribute to your environment, social and governance goals?

- How can the Proteus Partnership provide support to accelerate, scale and report on restoration activities
  - E.g. technical briefings, layers, spatial/landscape prioritization tools, metrics, etc.

# Proteus Horizon Scan webinar

## United Nations Decade on Ecosystem Restoration 2021-2030

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UN environment programme WCMC

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UN environment programme

WCMC

# REFERENCES


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- Capitals Coalition, 2021. Natural Capital for Biodiversity Policies: What, why and how. Available here
- WEF 2020. The Future of Nature and Business. Available here.
- WEF. 2020. New Nature Economy. Available here
- Dasgupta P. 2021. The Dasgupta Review on Economics and Biodiversity. Available here
- Vivid Economics. 2021. The Urgency of Biodiversity Action. Available here
- Global Landscapes Forum. 2019. Mobilising private capital for land and ecosystem restoration (White Paper). Available here
- Convention on Biological Diversity. 2016. Business and Biodiversity in Brazil: Why Private Restoration is an Important Issue against the Reality of Climate Change and Environmental Pressure. Available here

Photographs

- Restoration on the Ground Slide (left to right): IUCN UK Peatland Programme; Chris Reij (World Resources Institute, Washington, DC); Chris Reij (World Resources Institute, Washinton, DC); Mangrove Action Project

# RESOURCES

- UN Decade on Ecosystem Restoration
- Spatial Dataset Platforms
  - NatureMap
  - Planet
  - Copernicus
  - ESA
  - Global forest watch
  - Global mangrove watch
- Spatial Analysis Platforms
  - EarthMap
  - FAO Spatial Platforms
  - Google Earth Engine
- Restoration Initiatives
  - The Bonn Challenge
  - Global Mangrove Alliance
  - Blue Carbon Initiative
  - Global Peatlands Initiative
- Ecosystem Service Analysis Programmes
  - InVEST
  - ARIES
  - Trends.Earth
  - Restor
  - Satelligence
  - Starling
- Funding Restoration
  - Restoration Seed Capital Facility
  - UNEP's Land Use Finance Programme
  - TerraMatch
  - VERRA
  - Climate, Community and Biodiversity Alliance (CCBA)
  - REDD+ Project Database
  - LEAF Coalition
- Monitoring and Reporting of Environmental and Social Impact
  - The Land-Use Financing – Positive Impact Indicators Directory