proteus

Proteus Horizon Scan webinar

Restoration Resilience

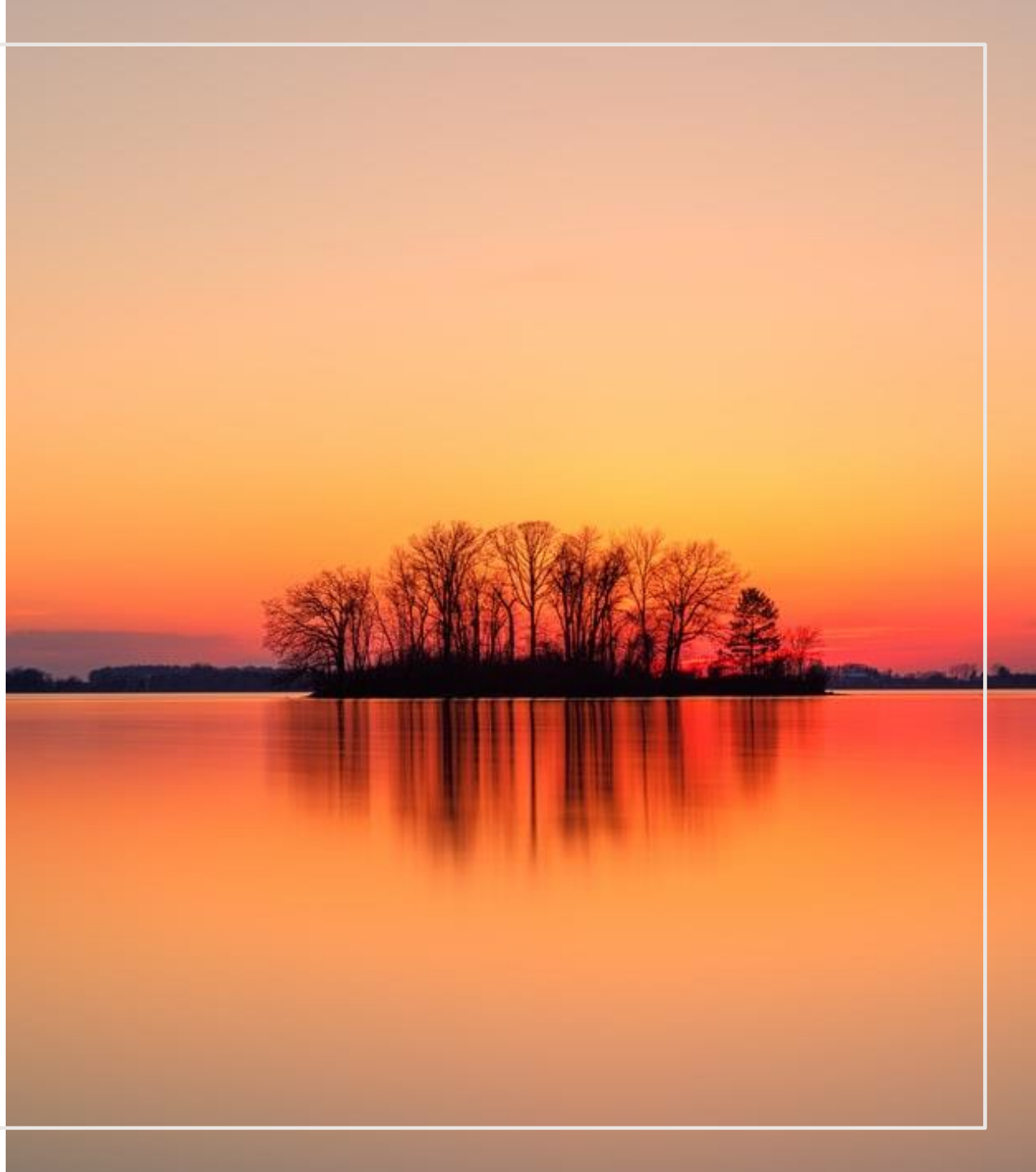
29TH OCTOBER 2020

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!



ABOUT UNEP-WCMC

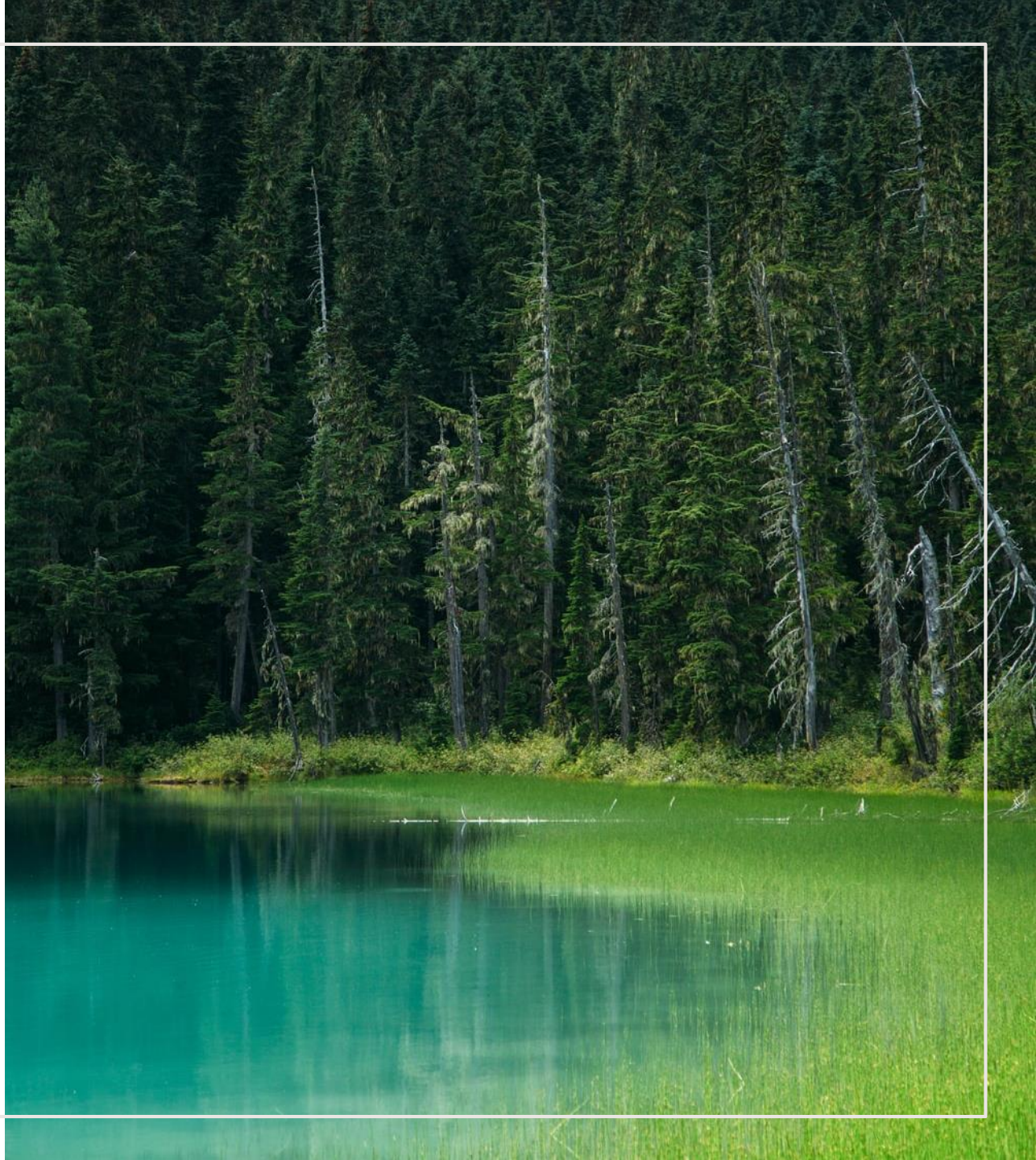
UNEP-WCMC is a global Centre of excellence on biodiversity. The Centre operates as a collaboration between the UN Environment Programme and the UK-registered charity WCMC. Together we are confronting the global crisis facing nature.

Restoration Resilience

Hazel Thornton, Programme Officer

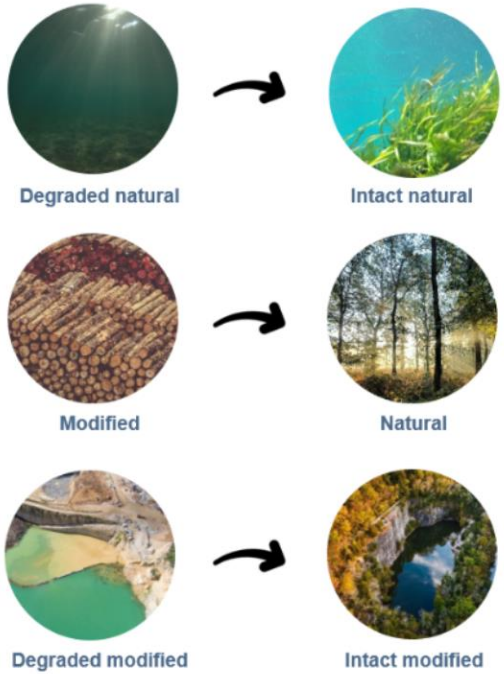
OVERVIEW

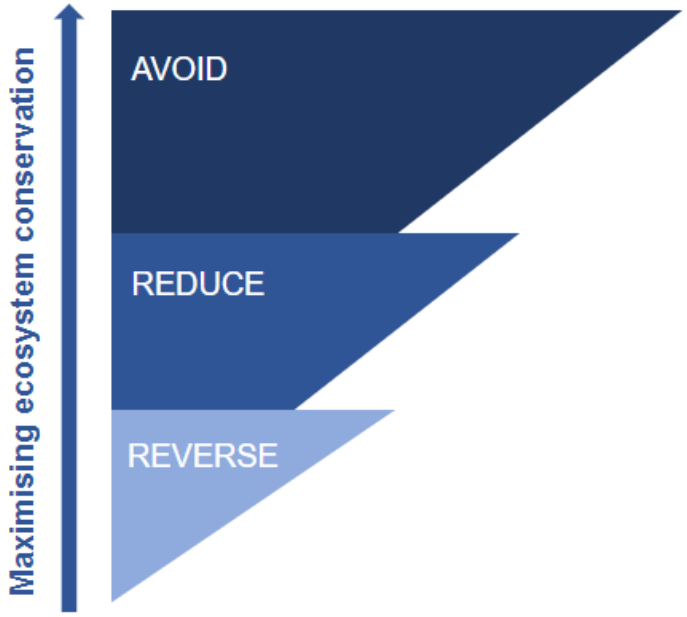
- Why restore?
- Why consider resilience?
- Developing a global layer
- Related work & key differences
- How can the global layer for restoration resilience be used?
- Timeline & feedback

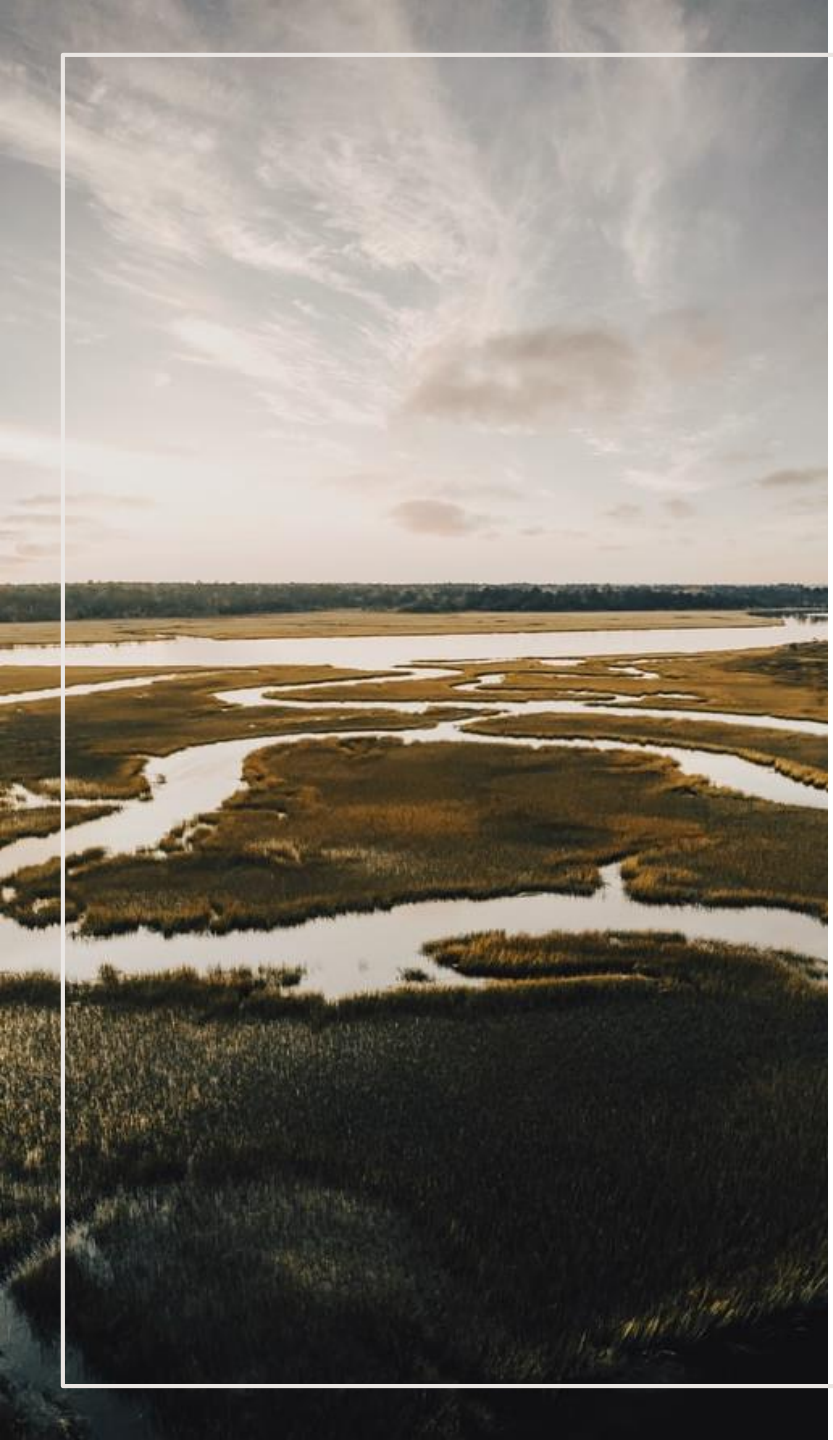


ECOSYSTEM RESTORATION

Process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed

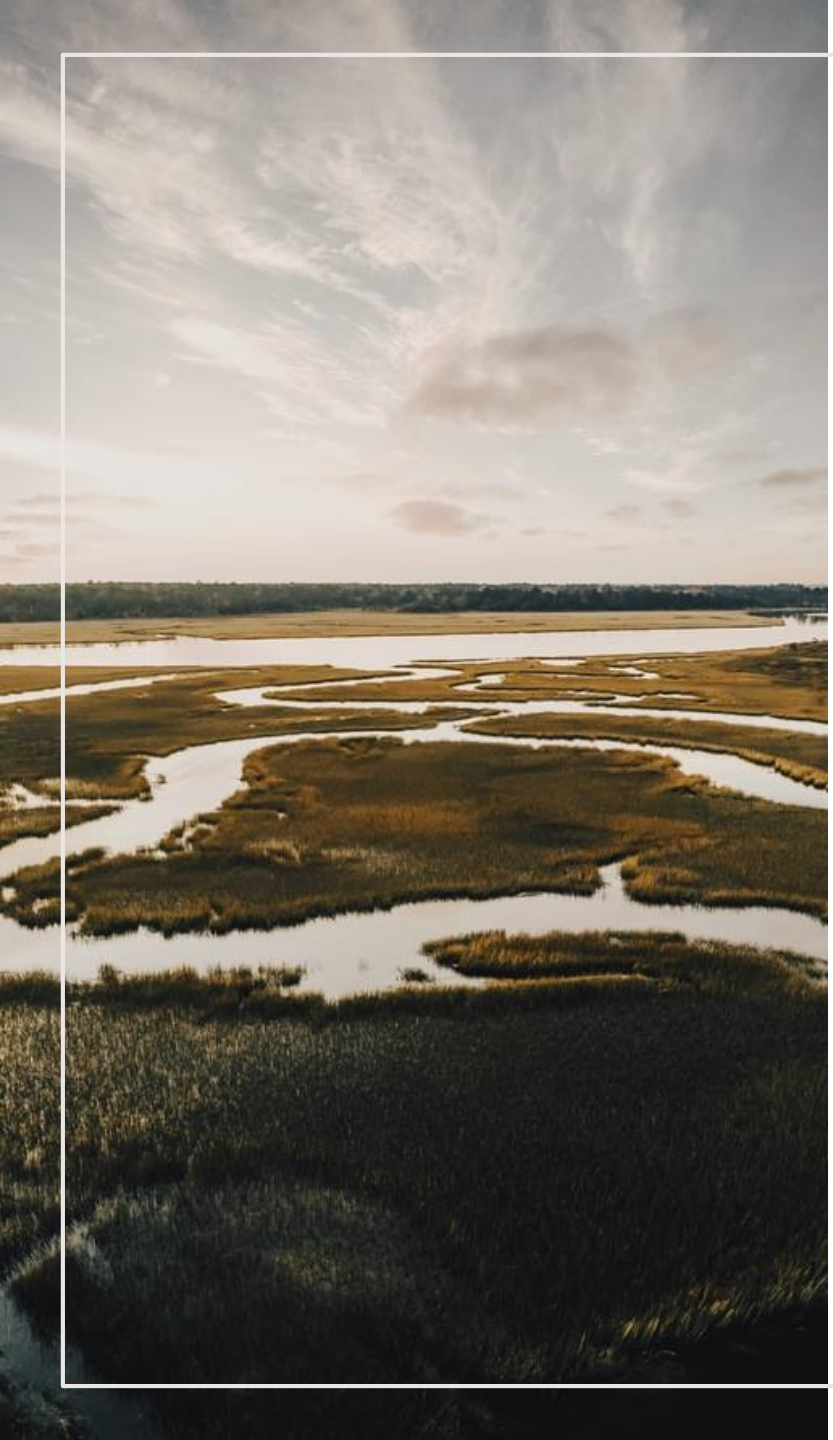






WHY RESTORE?

- **75%** substantially degraded land globally
- **386 million hectares** of tree coverage lost since 2001
- **85% loss** of wetland area globally
- **3.2 billion people** affected by degradation
- Costing **$4.5 trillion** of global gross product annually



WHY RESTORE?

- Economic benefits of restoration exceed **10 times** the cost of investment
- By 2030, restoring 350 million hectares of degraded ecosystems could:
  - Generate **$9 trillion** in ecosystem services
  - Remove **13-26 gigatons** of greenhouse gases

GLOBAL PRIORITY

UNITED NATIONS DECADE ON
ECOSYSTEM
RESTORATION
2021-2030

ipbes
Science and Policy
for People and Nature

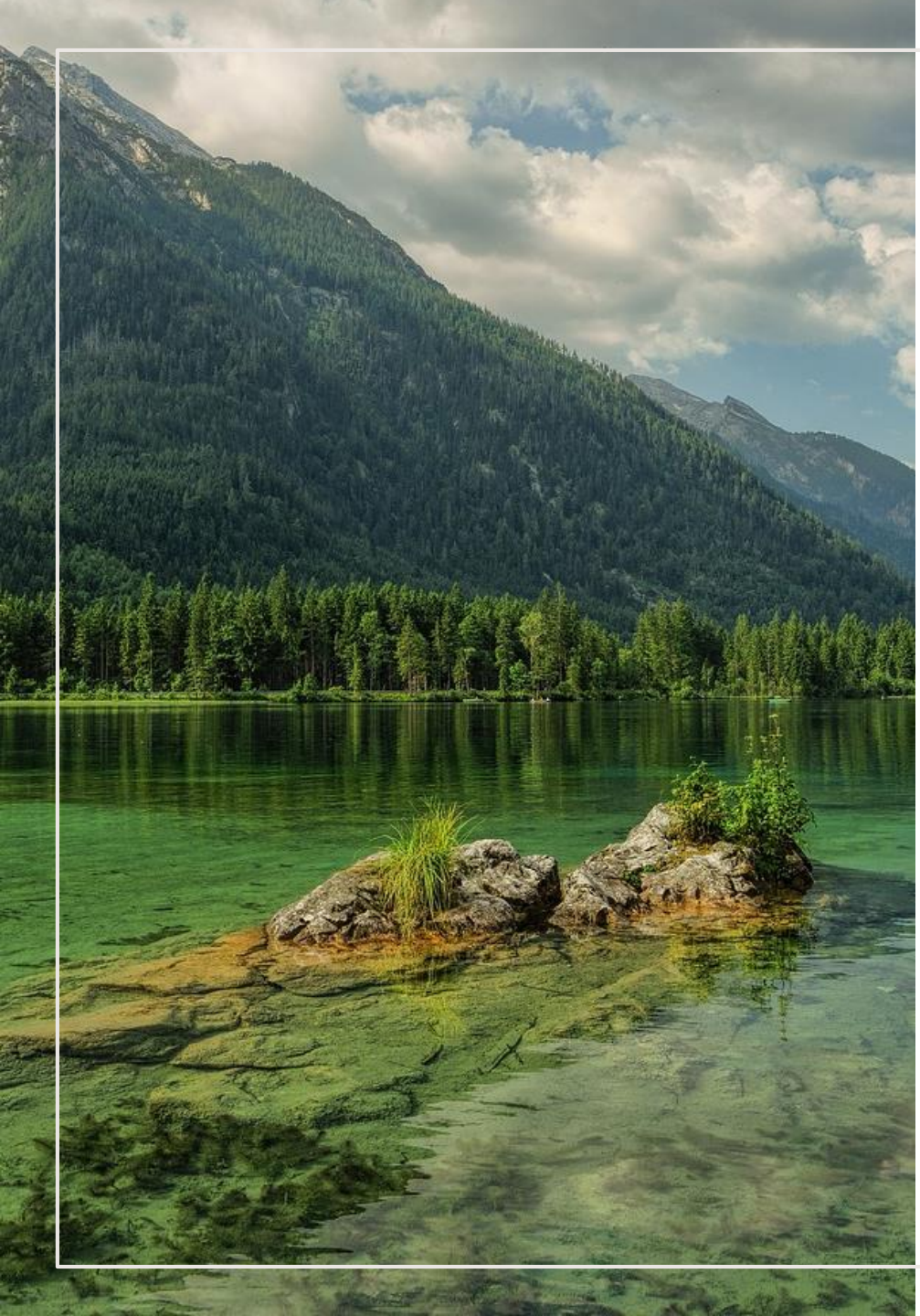
SUSTAINABLE
DEVELOPMENT
GOALS

2021 2030 United Nations Decade
of Ocean Science
for Sustainable Development

Ramsar

Convention on
Biological Diversity

UNFCCC



WHY RESTORATION RESILIENCE?

- Climate change threats continue to rise
- Range of habitats & species likely to shift
- Long term process that must be sustainable
- Resources need to be effectively allocated

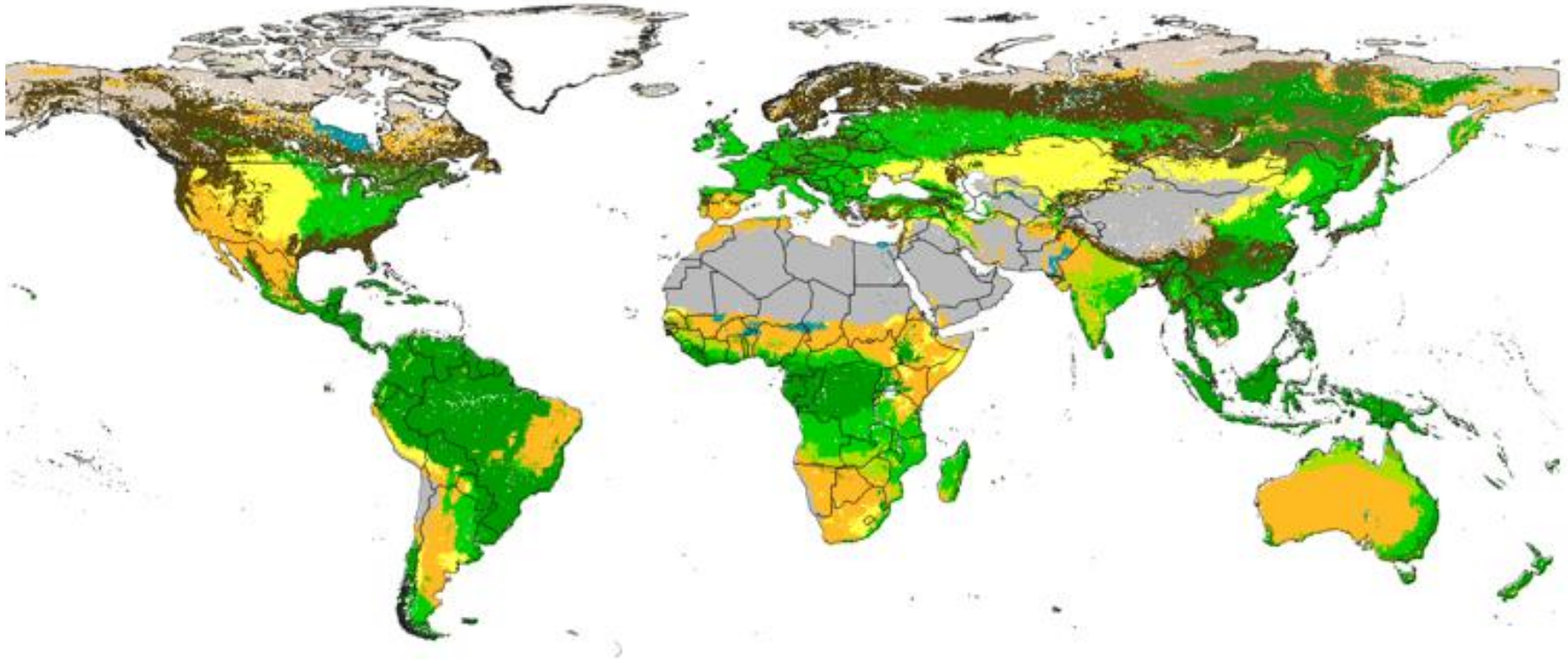
How can we show restoration resilience in a global layer?

Sara Pruckner, Associate Programme Officer

THE LAYER

Potential ecosystem distribution

- Forests
- Peatlands
- Grasslands
- Mangroves
- Corals
- Seagrasses

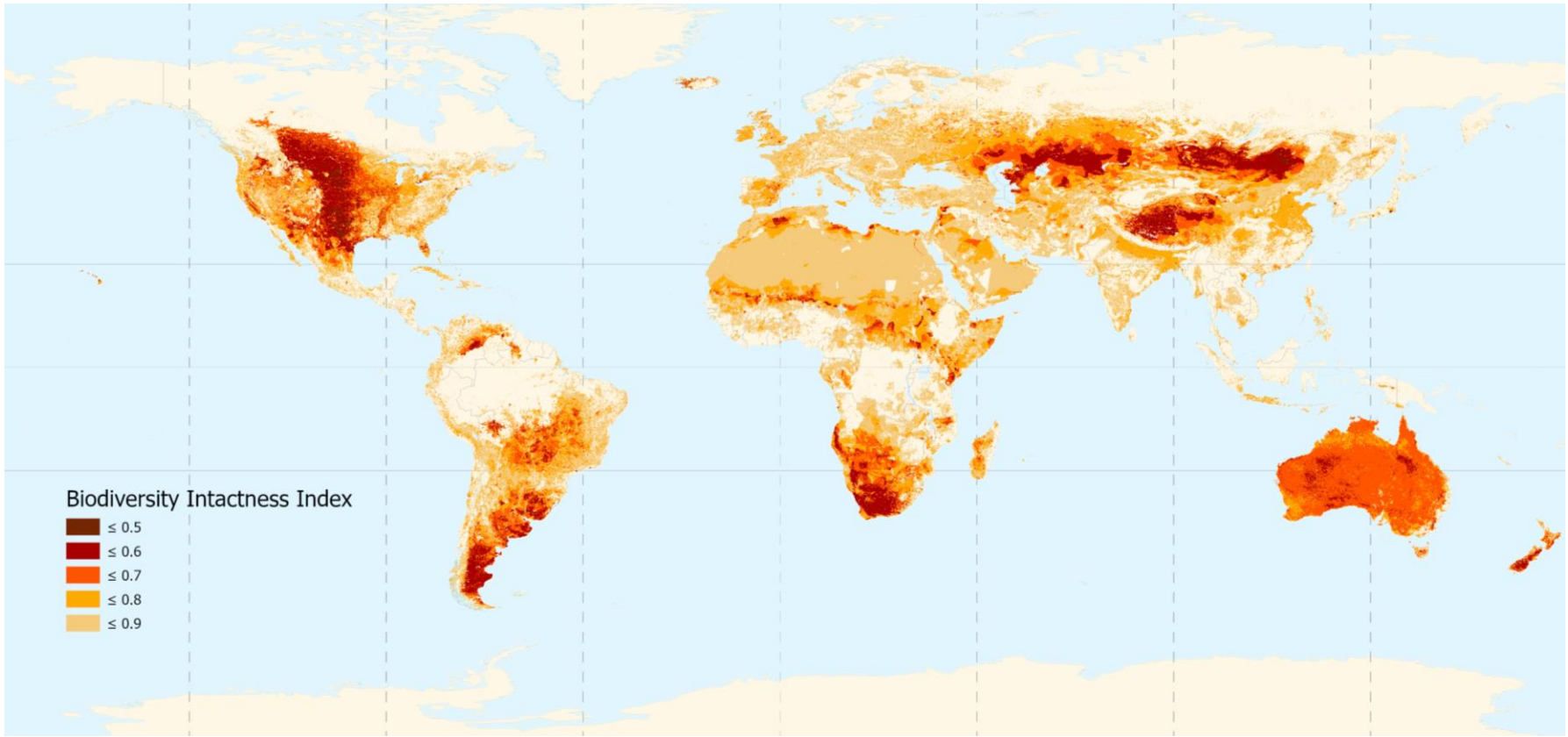


e.g. Potential distribution of land cover classes at 250m spatial resolution; Hengl et al. 2020

THE LAYER

Restorable ecosystems

- Where ecosystems could be, but have disappeared
- Degraded ecosystems



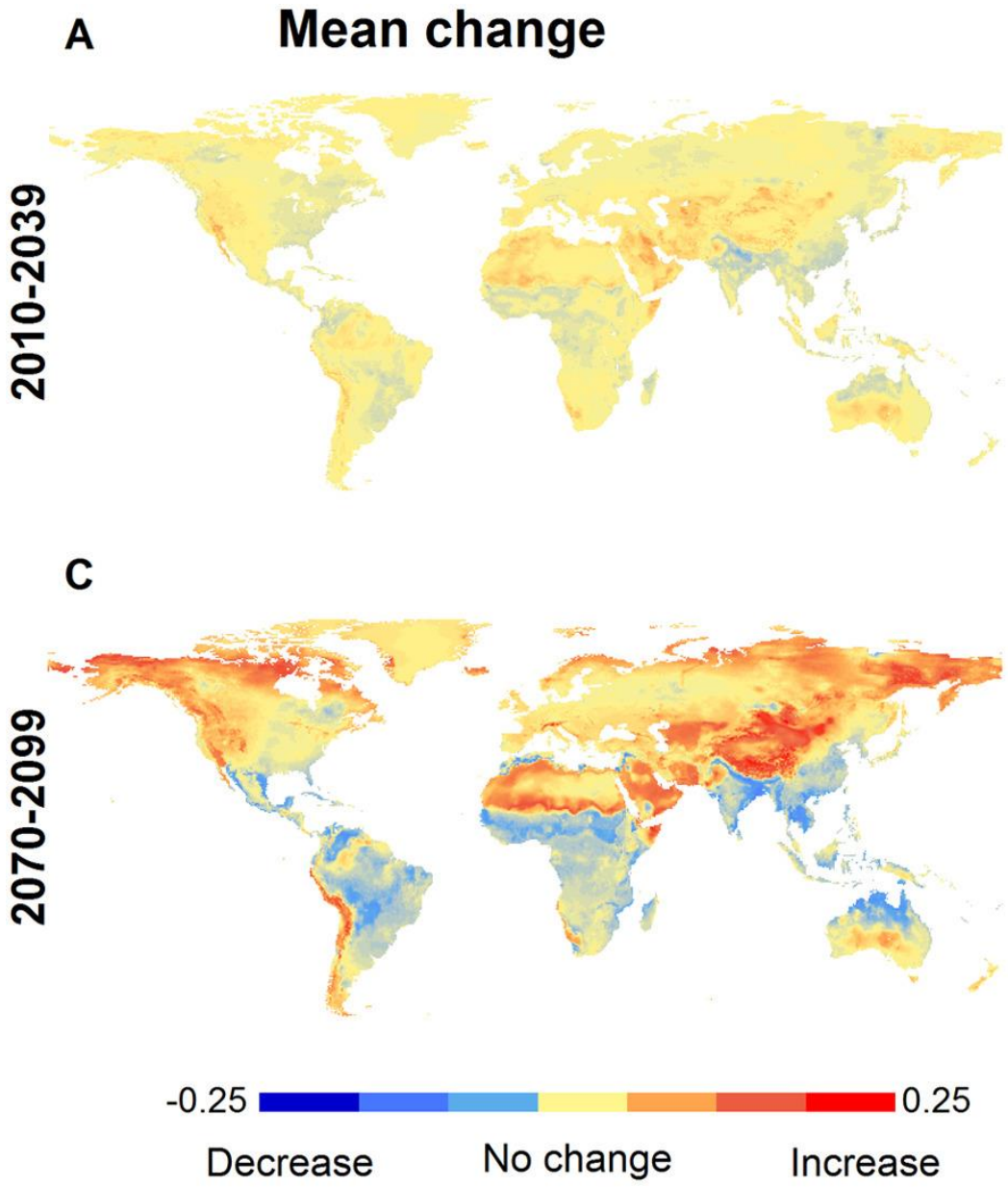
e.g. Biodiversity Intactness Index (BII), Scholes & Biggs 2005

THE LAYER

Climate threats

Which threats will likely:

- Affect selected ecosystems
- Lead to potential habitat shifts
- Increase by 2050



e.g. Climate change and disruptions to global fire activity

Moritz et al. 2012

THE LAYER

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Restorable ecosystems

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Climate threats

Which threats will likely:

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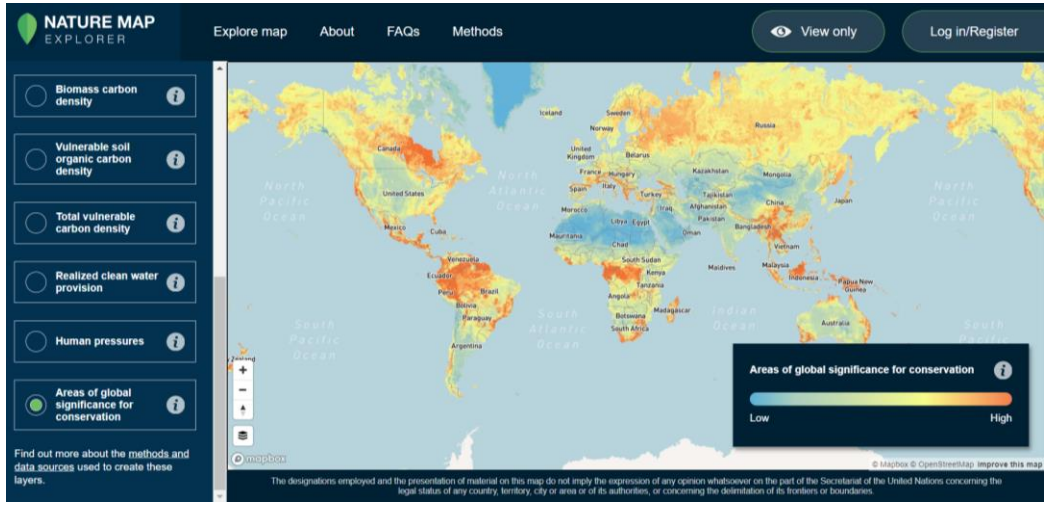
Scoping layer

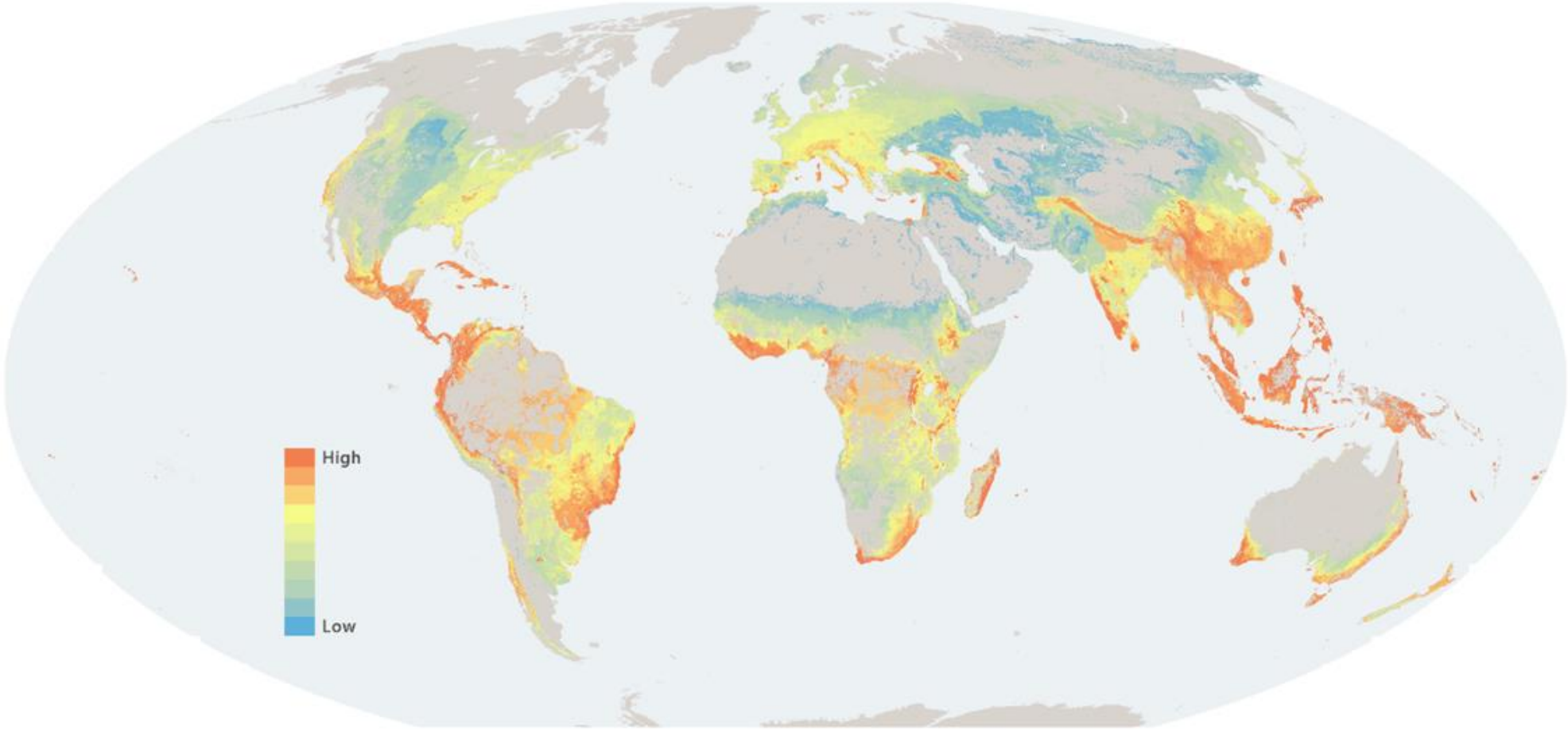
- Screen global areas for potential restoration areas
- Assess climate change risk in any restorable area
- Target local research

RELATED WORK: NATUREMAP

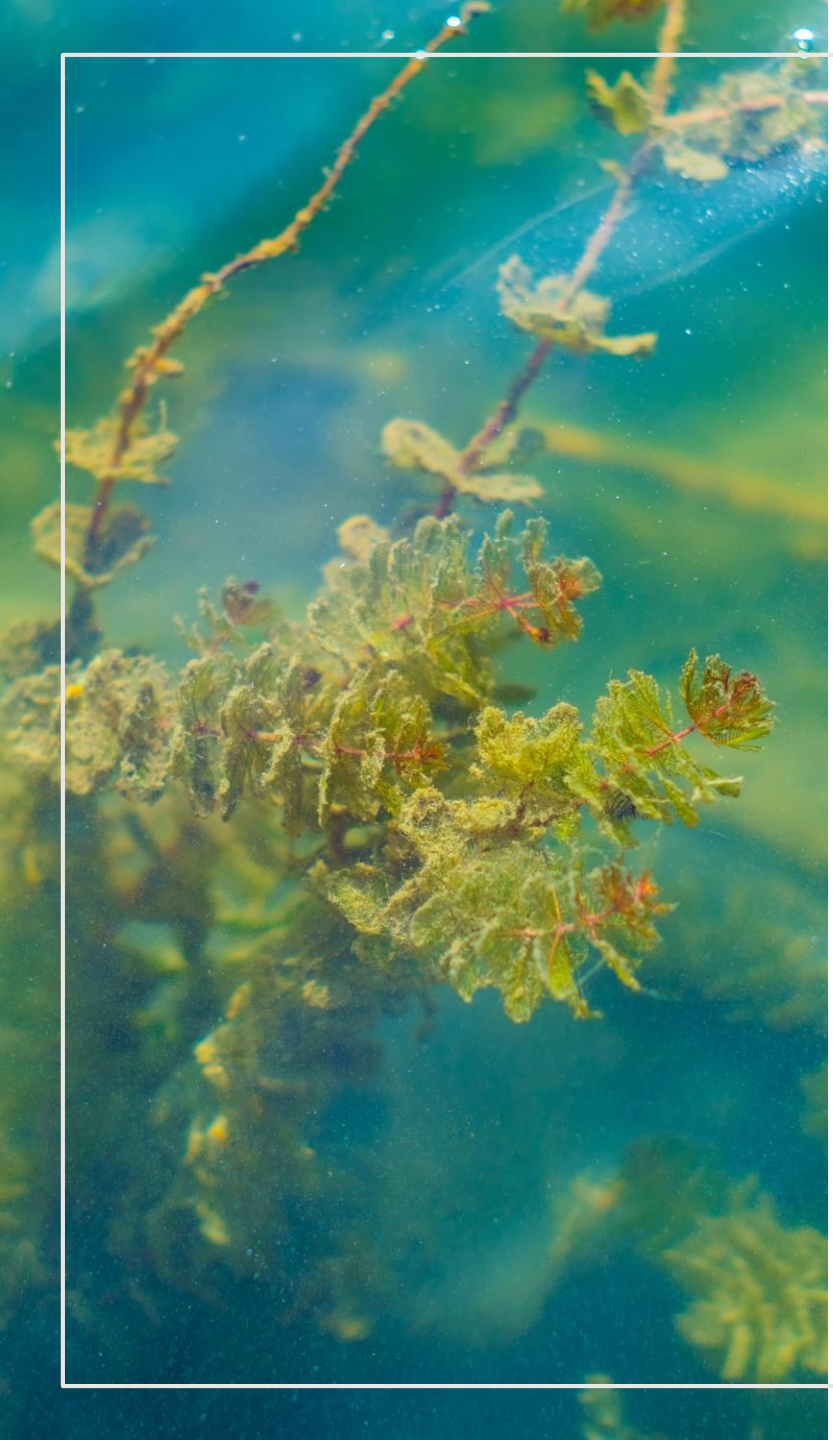
- New global maps of habitats, biodiversity, carbon and other ecosystem services to identify areas of global significance for conservation and restoration
- Incorporates large amounts of newly available global biodiversity data not included in previous efforts
- Building the largest globally consistent spatial dataset on species ranges to date



NATURE MAP – RESTORATION PRIORITIES



Strassburg et al. (2020). Global priority areas for ecosystem restoration. *Nature* (in press).



WHAT CAN THE GLOBAL LAYER FOR RESTORATION RESILIENCE BE USED FOR?

- Global screening & scoping layer
- Decision-making to avoid restoration efforts affected by climate change
- Must be supplemented by local research before action can occur

TIMELINE & RESOURCES

September

- Data scoping and gathering

October

- Horizon Scan webinar
- Analysis of data and feedback
- Writing User Guide

November

- Data Forum
- Gather final feedback
- Delivery of Technical Brief

December

- Quality Control & Quality Assurance
- Delivery of User Guide
- Publish Results

Thank you

DISCUSSION POINTS

We would be interested to hear...

- How you might use this global layer?
- Your thoughts & feedback on this tool so far
- Your thoughts on the UN Decade on Ecosystem Restoration

Please do get in touch to discuss further

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