Global Biodiversity Framework

Help Australia meet targets by 2030

Session 1: Reducing Threats to Biodiversity

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RARES

GFS

Our brief

- Introduce the targets (T1-T3)
- Outline some challenges and solutions in meeting these targets

Targets 1-3 speak directly to GOAL A of the GBF

• The integrity, connectivity and resilience of all ecosystems are maintained, enhanced, or restored, substantially increasing the area of natural ecosystems by 2050;
• Human induced extinction of known threatened species is halted, and, by 2050, extinction rate and risk of all species are reduced tenfold, and the abundance of native wild species is increased to healthy and resilient levels;
• The genetic diversity within populations of wild and domesticated species, is maintained, safeguarding their adaptive potential.

TARGET 1

Ensure that all areas are under participatory, integrated and biodiversity **inclusive spatial planning and/or effective management** processes addressing land- and sea-use change, to bring the **loss of areas of high biodiversity importance, including ecosystems of high ecological integrity, close to zero by 2030,** while respecting the rights of indigenous peoples and local communities.

Quick thoughts on Target 1:

- Being specific about the needs for inclusive spatial planning a critical addition by CBD

- ecosystem target is a fantastic outcome, especially shines a light on the important of retaining areas of high ecosystem integrity

- 'close to zero by 2030' a really poor framing – targets needs to be states not rates

United Nations Development Programme

ARE WE COUNTING ON NATURE?

An Analysis of Spatial Data included in Post-2010 National Biodiversity Strategies and Action Plans and 5th National Reports from 135 Countries

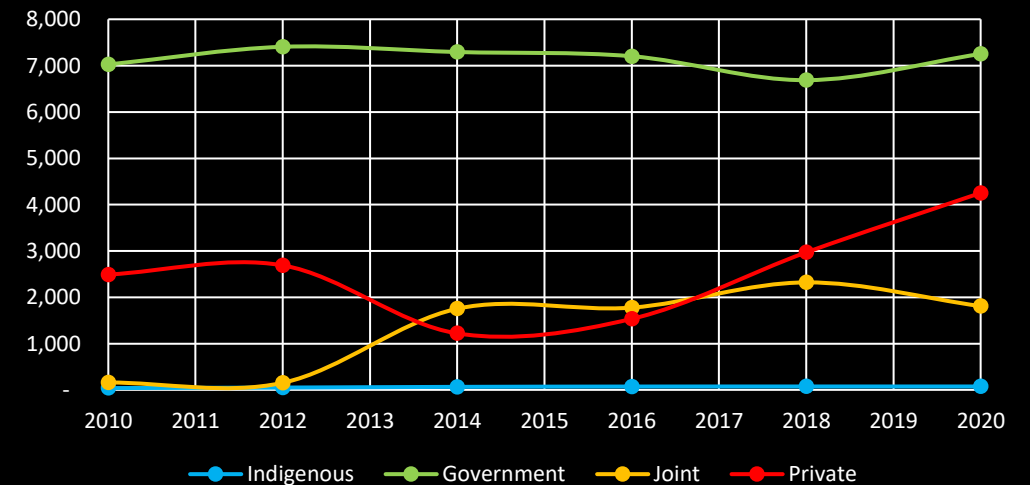# Why planning important

NRS covered 13.4% of Australia in 2010
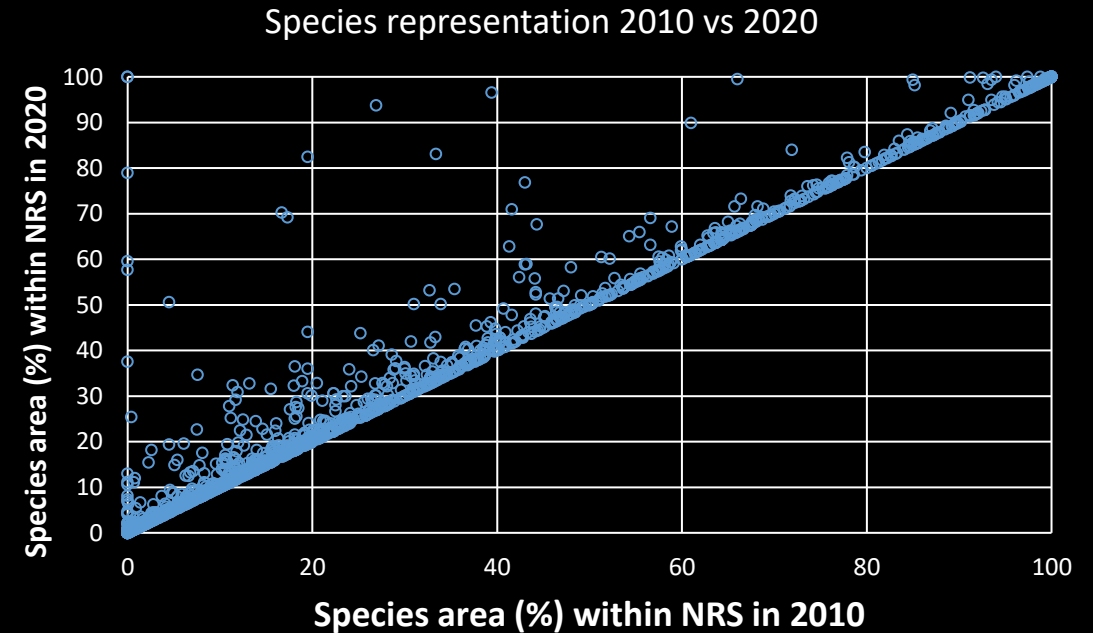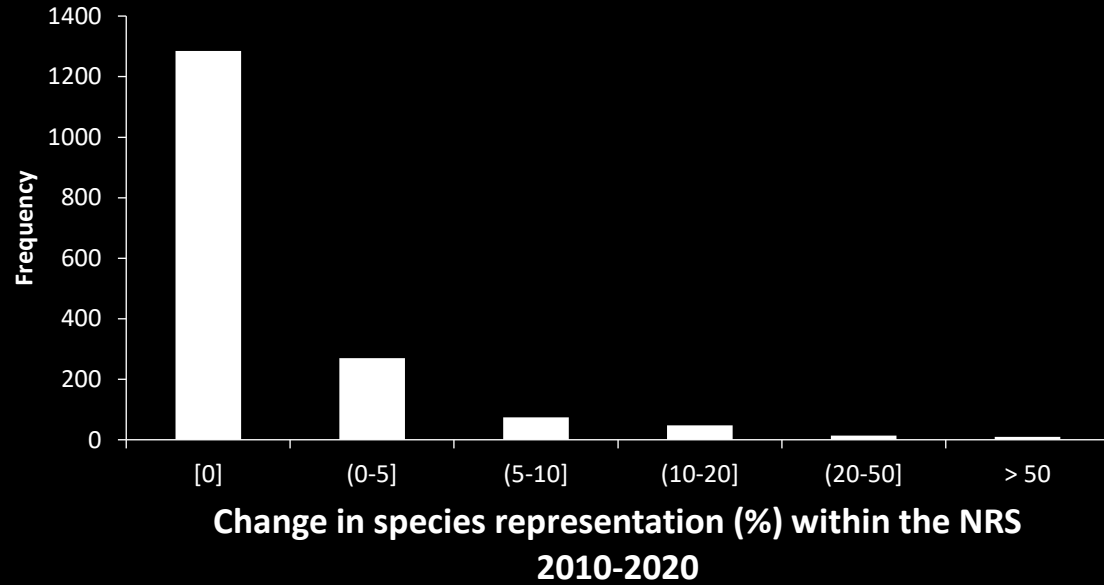
NRS covered 19.8% of Australia in 2020
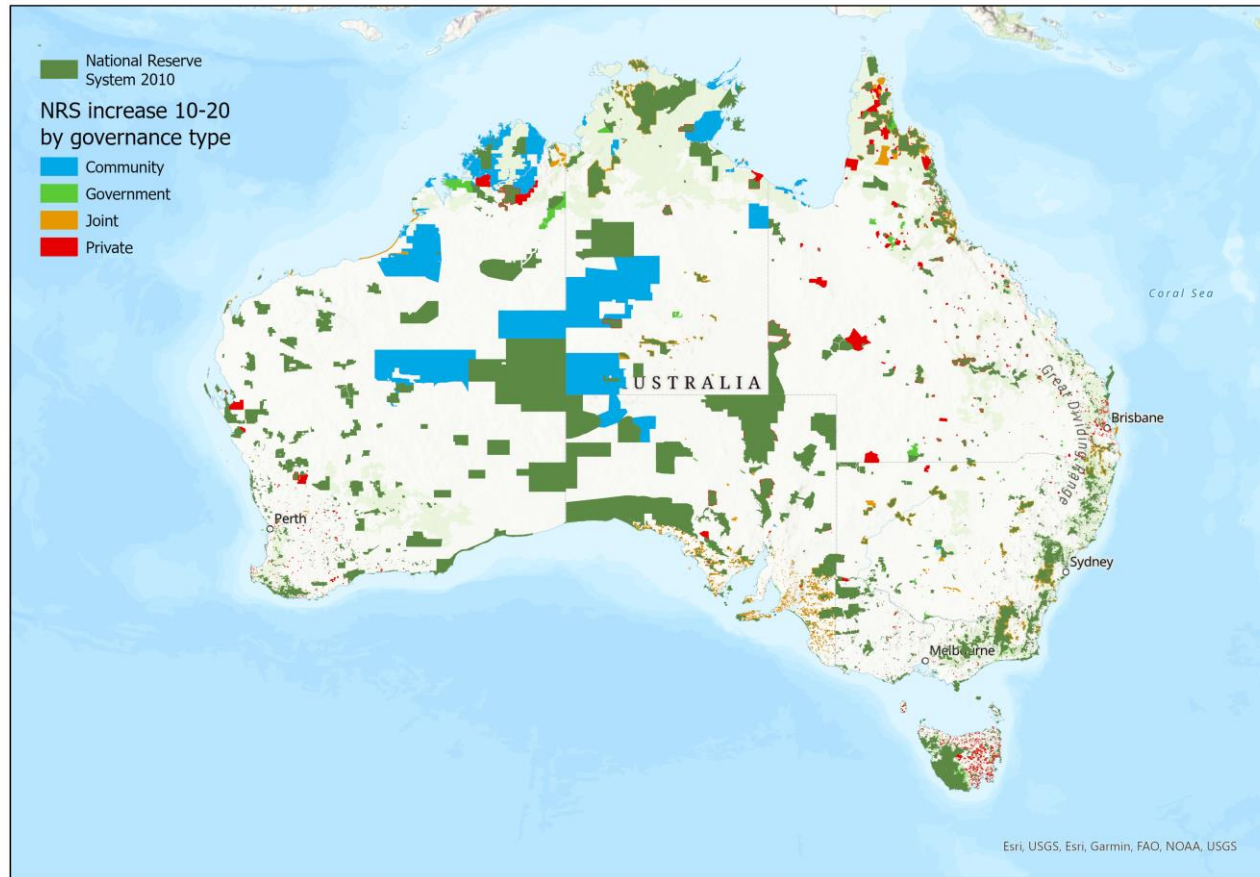
PA area (Ha) per year per governance type
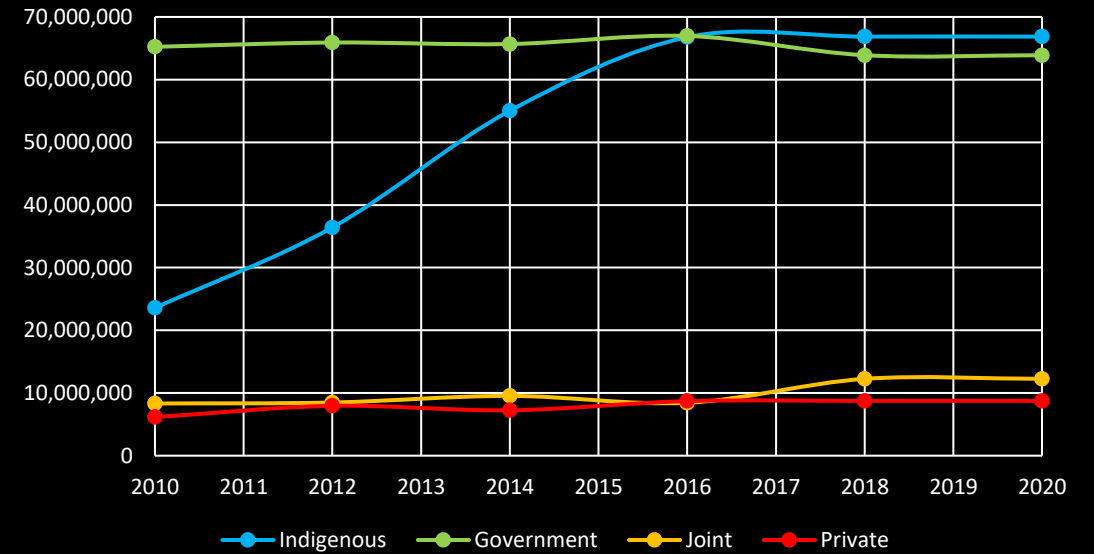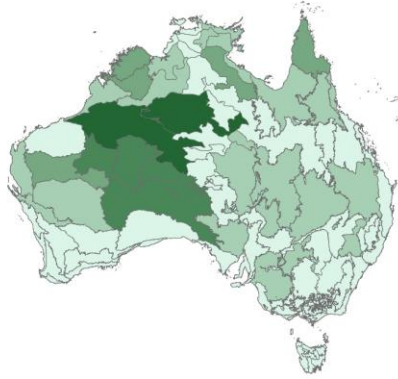

Number of PA per year per governance type
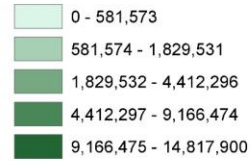
EPBC threatened species representation 2010 vs 2020

Species representation 2010 vs 2020

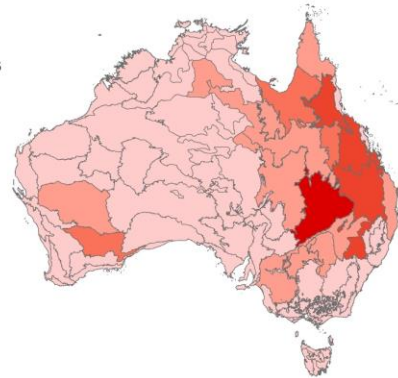Representation in protected area hasn't changed for 75% of the species between 2010 and 2020
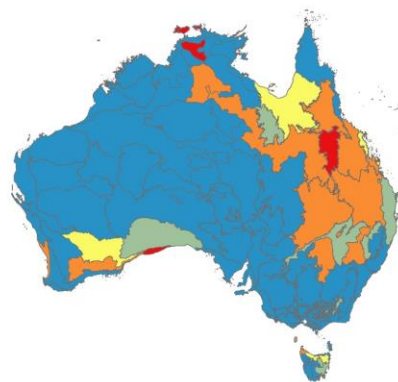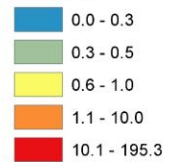
Why we need proactive spatial planning:

Changes in area under protection and vegetation 2000-2017

T1 '…..inclusive spatial planning and/or effective management…..'

Challenges:

- good plans need good input data

- We need to define 'effective management' – must be outcome oriented

Solutions:

- We can identify the data shortfalls now

- We should utilize and adapt the thinking in IUCN Green List of Protected Areas as it forms a gold standard around effective management

T1 '….loss of areas of high biodiversity importance, including ecosystems of high ecological integrity, close to zero by 2030….'

Challenges:

- agreement of a map of ecosystem and their relative integrity necessary

- what counts as 'high biodiversity importance'… and what does not?

Solutions:

- There is a foundational requirement to map Australian ecosystems so as to ascertain baselines, trends and targets for most targets in GBF

- Utilise the tools, knowledge and methods in IUCN Red List of Ecosystem efforts

- Very clear framework accepted internationally around 'high biodiversity importance' i.e. IUCN's Key Biodiversity Area (KBA) Standard – let's use them

Target 2

Ensure that **by 2030 at least 30 per cent of areas of degraded terrestrial, inland water, and marine and coastal ecosystems are under effective restoration**, in order to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity.

Quick thoughts on Target 2:

- 30% restoration target not based on any evidence

- Restoration needs to speak to a broader nature retention agenda

Intactness category
- 80 - 100%
- 60 - 80%
- 40 - 60%
- 20 - 40%
- 0 - 20%

AUSTRALIA

Intactness Index
High : 1
0.00001

0   500   1,000   2,000 Kilometers

N
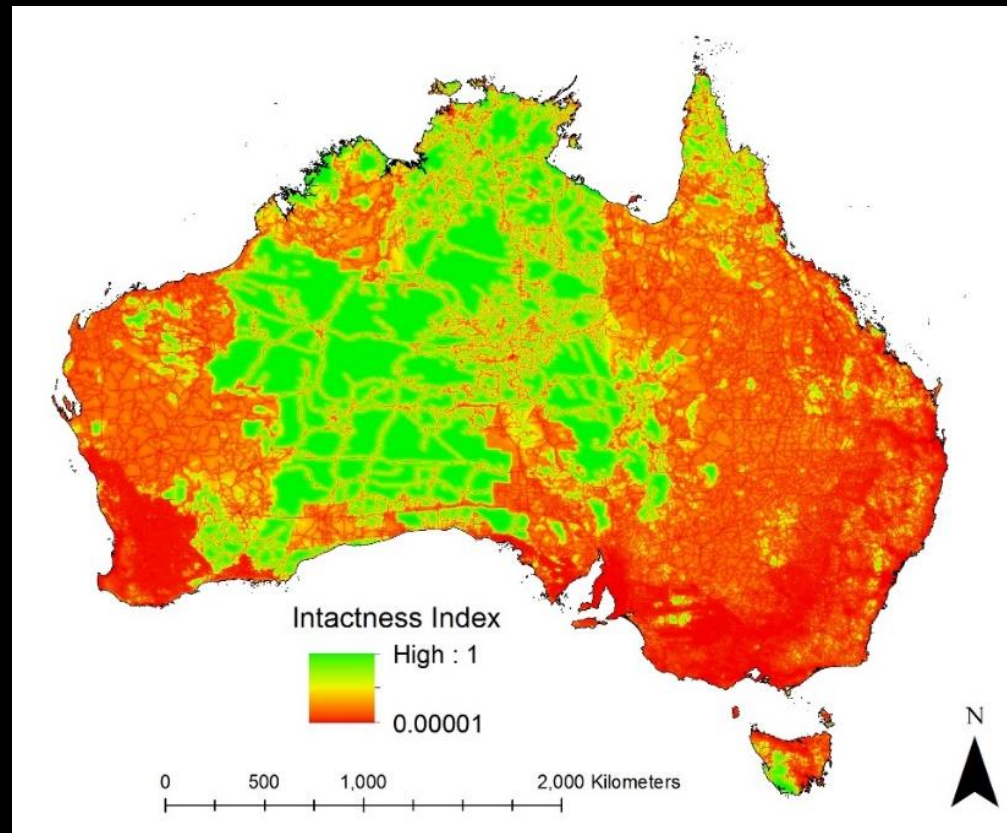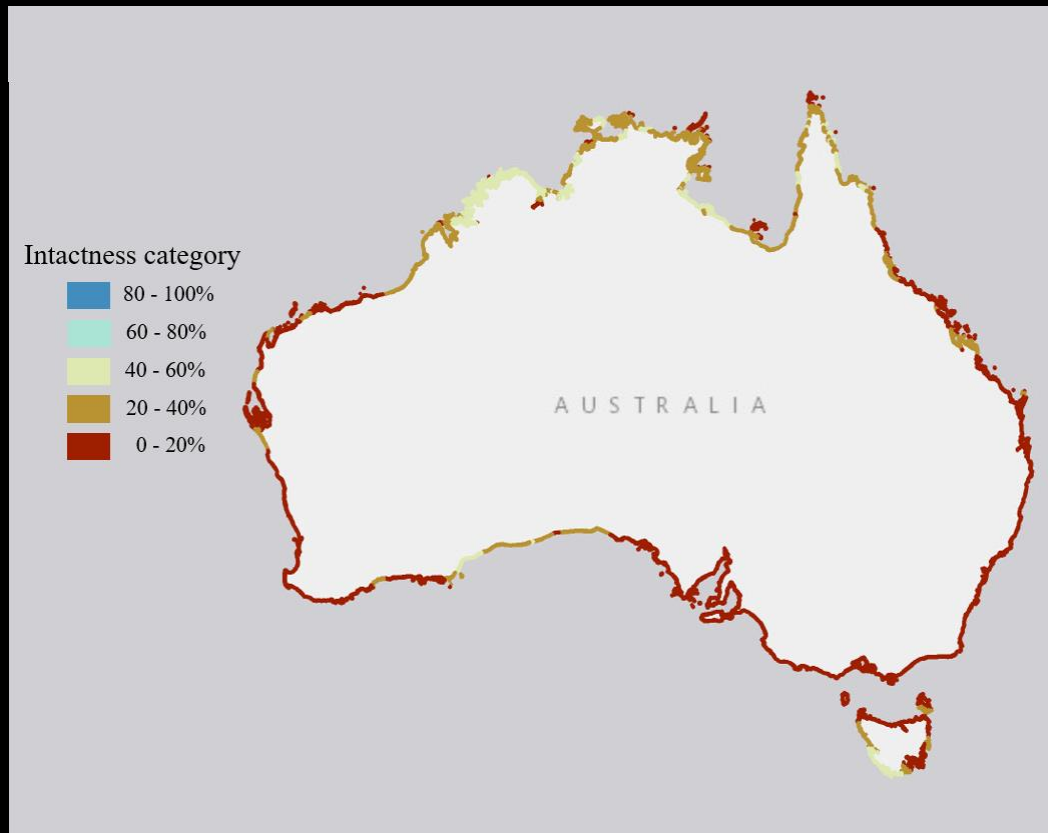
(Beyer et al. 2020; Williams et al. 2021)

T2 ….by 2030 at least 30 per cent of areas of degraded terrestrial, inland water, and marine and coastal ecosystems are under effective restoration, …

Challenges:

- We don't have accepted ecosystems maps

- Defining what is 'degraded' and what is not

- Defining what 'effective' restoration is

Solutions:

-utilize accepted frameworks around ecosystem degradation (IUCN Red List of Ecosystems)

- Adapt current efforts around effectiveness of area-based management (IUCN GreenList of PAS)

TARGET 3

Ensure and enable **that by 2030 at least 30 per cent of terrestrial and inland water areas, and of marine and coastal areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved** and managed through ecologically representative, well-connected and equitably governed systems of **protected areas and other effective area-based conservation measures**, recognizing indigenous and traditional territories, where applicable, and integrated into wider landscapes, seascapes and the ocean, while ensuring that any sustainable use, where appropriate in such areas, is fully consistent with conservation outcomes, recognizing and respecting the rights of indigenous peoples and local communities, including over their traditional territories.

Quick thoughts on Target 3:

- 30% protection not based on any evidence

- 30% only be seen as interim target....which means we need to think bigger when working through immediate priorities

The minimum land area requiring conservation attention to safeguard biodiversity

James R. Allan[1,2,*], Hugh P. Possingham[2,3], Scott C. Atkinson[2,4], Anthony Waldron[5,6], Moreno Di Marco[7,8], Stuart H. M. Butchart[9,10], Vanessa M. Adams[11], W. Daniel Kissling[1], Thomas Worsdell[12], Chris Sandbrook[13], Gwili Gibbon[14], Kundan Kumar[12], Piyush Mehta[15], Martine Maron[2,8], Brooke A. Williams[2,8], Kendall R. Jones[16], Brendan A. Wintle[17], April E. Reside[2,8], James E. M. Watson[2,8]

Ambitious conservation efforts are needed to stop the global biodiversity crisis. In this study, we estimate the minimum land area to secure important biodiversity areas, ecologically intact areas, and optimal locations for representation of species ranges and ecoregions. We discover that at least 64 million square kilometers (44% of terrestrial area) would require conservation attention (ranging from protected areas to land-use policies) to meet this goal. More than 1.8 billion people live on these lands, so responses that promote autonomy, self-determination, equity, and sustainable management for safeguarding biodiversity are essential. Spatially explicit land-use scenarios suggest that 1.3 million square kilometers of this land is at risk of being converted for intensive human land uses by 2030, which requires immediate attention. However, a sevenfold difference exists between the amount of habitat converted in optimistic and pessimistic land-use scenarios, highlighting an opportunity to avert this crisis. Appropriate targets in the Post-2020 Global Biodiversity Framework to encourage conservation of the identified land would contribute substantially to safeguarding biodiversity.

Legend:
- Protected areas
- Key biodiversity areas
- Wilderness
- Additional conservation priorities
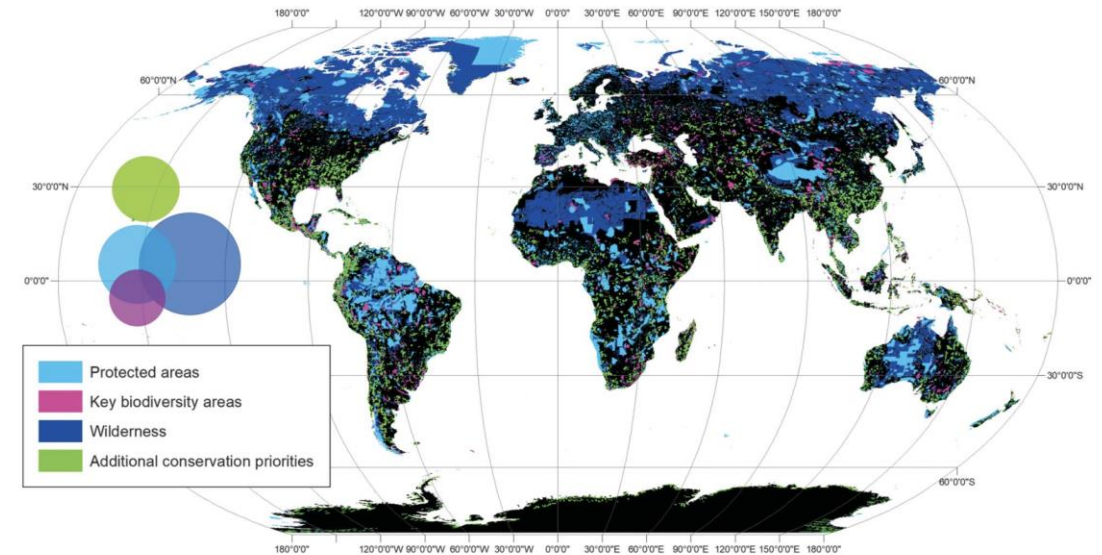
Fig. 1. Minimum land area for conserving terrestrial biodiversity. Components include PAs (light blue), KBAs (purple), and ecologically intact areas (dark blue). Where they overlap, PAs are shown above KBAs, which are shown above ecologically intact areas. New conservation priorities are in green. The Venn diagram shows the proportional overlap between features. Zoom-ins of the map can be found in fig. S6.

T 3 '....that by 2030 at least 30 per cent of terrestrial and inland water areas, and of marine and coastal areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved...'

Challenges:
- What counts as an 'areas of particular importance for biodiversity and ecosystem functions'?
- How much 'representation'?
- How do we define and monitor 'effectively conserved'?

Solutions: We need to proactively identify the core elements of T3 so they can feed into planning efforts. If the data does not exist, we need to fund the science to get these data

Thanks for listening!

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