

# Global conservation prioritization for Aichi Target 11

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# CBD Aichi Target 11



**By 2020, at least 17 per cent of terrestrial** and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, **are conserved through** effectively and equitably managed, ecologically representative and well connected **systems of protected areas** and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.

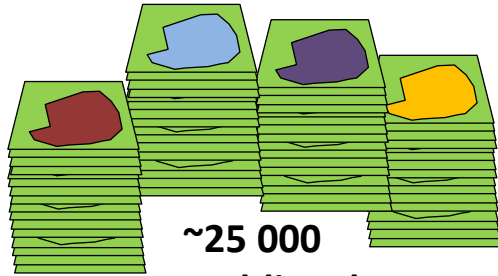


Convention on  
Biological Diversity

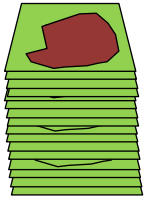
# Goals

- What is the potential of expanding the PA network to 17%?
- How will land-use change influence spatial conservation priorities?
- What is the difference between globally coordinated and nationally devolved PAs?

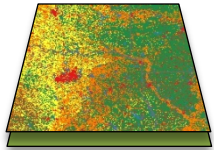
# The process:



**~25 000  
Red-listed  
species (IUCN)**



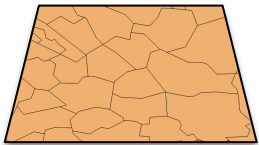
**827 (WWF)  
ecoregions**



**Land use  
- present  
- future (2040)**

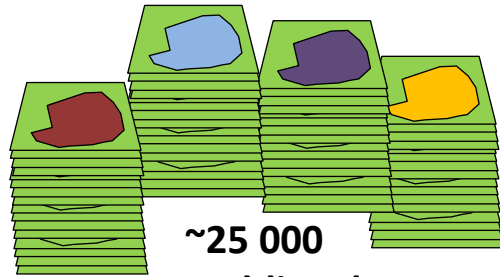


**Current Pas  
(WDPA)**

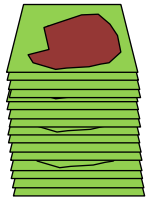


**Country  
borders  
(GADM)**

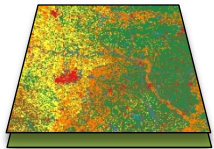
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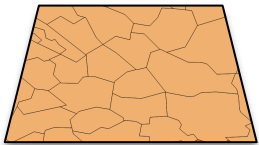
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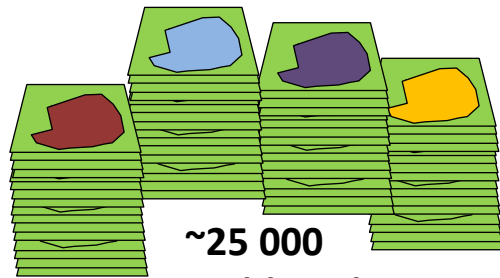


# Zonation software

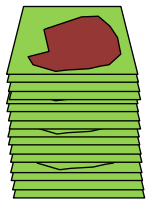


Download: <http://cbig.it.helsinki.fi/software/zonation/>

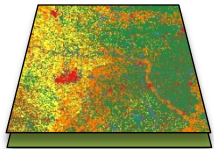
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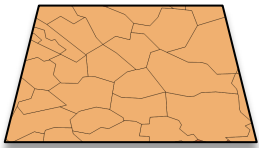
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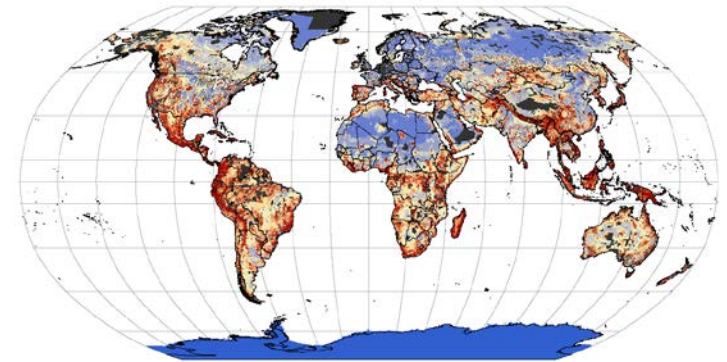
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- future (2040)



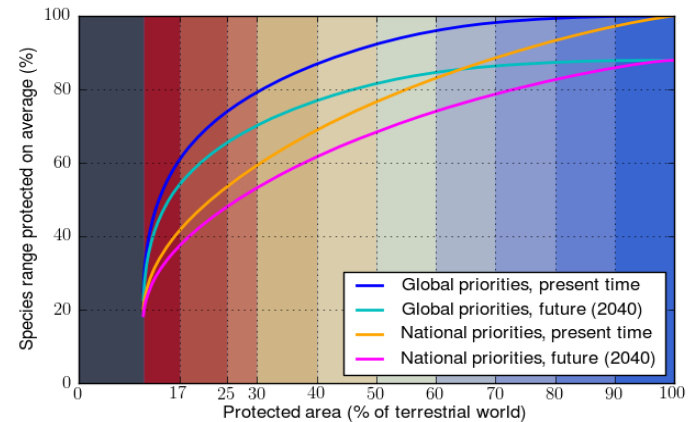
Current Pas  
(WDPA)



Country  
borders  
(GADM)



Current PA's Expansion to 17 % 17-25 25-30 30-40 40-50 50-60 60-70 70-80 80-90 90-100 %





## LETTER

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# Global protected area expansion is compromised by projected land-use and parochialism

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Protected areas are one of the main tools for halting the continuing global biodiversity crisis<sup>1–4</sup> caused by habitat loss, fragmentation and other anthropogenic pressures<sup>5–8</sup>. According to the Aichi Biodiversity Target 11 adopted by the Convention on Biological Diversity, the protected area network should be expanded to at least 17% of the terrestrial world by 2020 (<http://www.cbd.int/sp/targets>). To max-

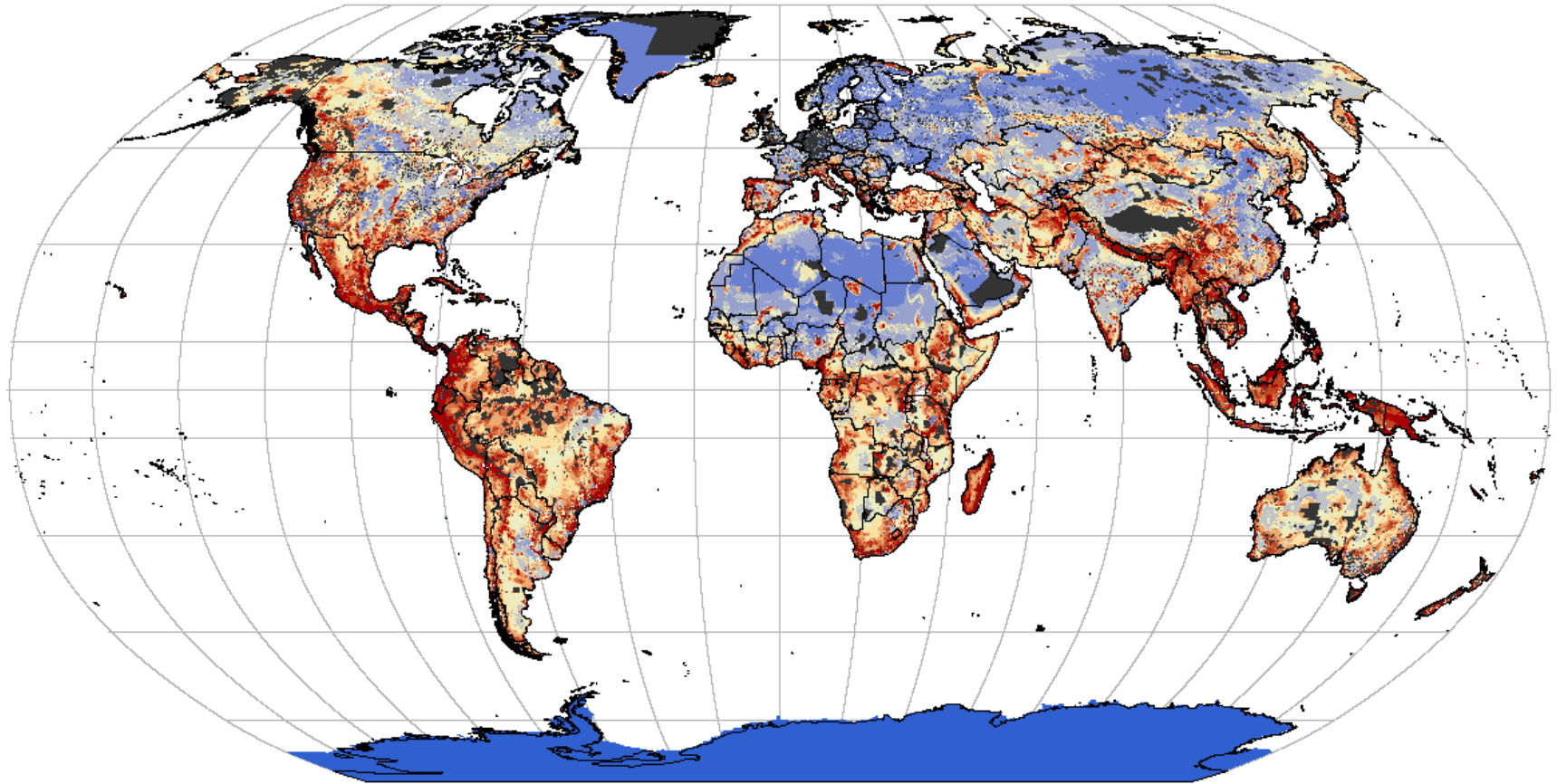
imize the effectiveness of protected areas, we need to plan against nationally prioritized expansion areas. Our analyses and maps are informative at the global, regional and national levels.

We used newly developed prioritization methods and software that follow principles and approaches from systematic conservation planning and spatial conservation prioritization<sup>17,18</sup>. As urbanization, agricultural land-use, desertification and deforestation are rapidly increasing<sup>8,11</sup>, we

**[bit.ly/cbig-gpan](http://bit.ly/cbig-gpan)**

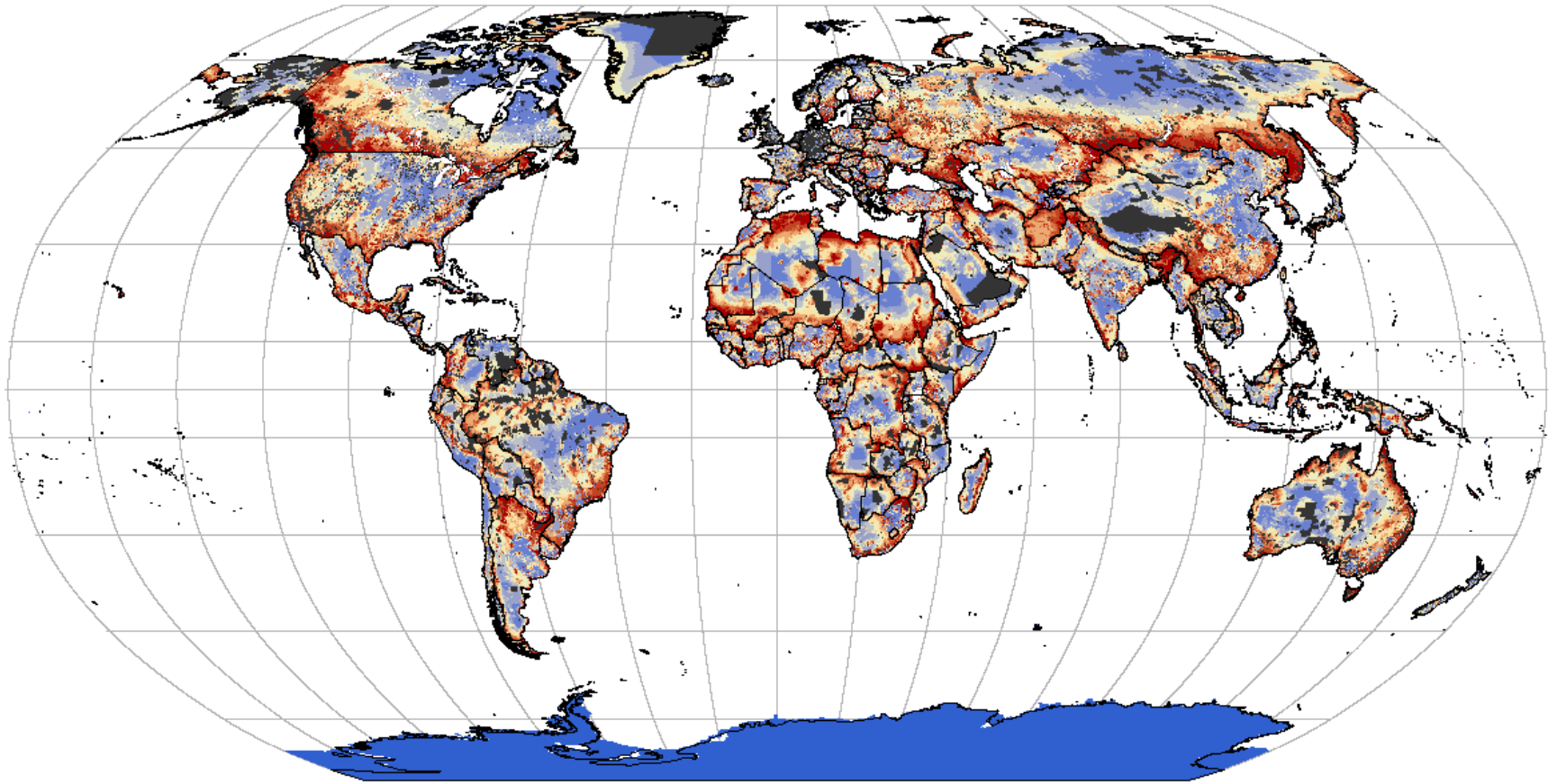


# Global Priorities 2040



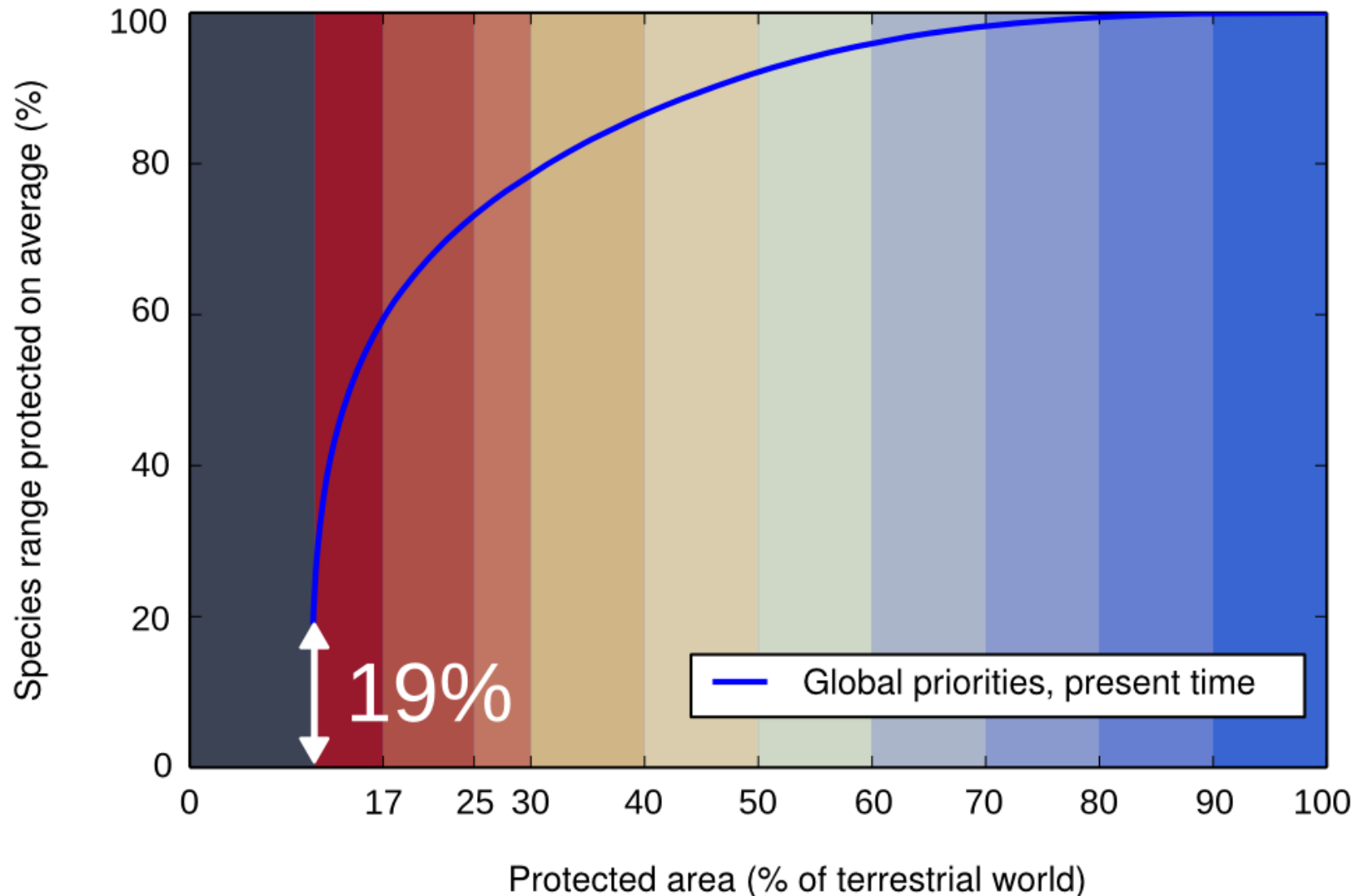
■ Current PA's ■ Expansion to 17 % ■ 17-25 ■ 25-30 ■ 30-40 ■ 40-50 ■ 50-60 ■ 60-70 ■ 70-80 ■ 80-90 ■ 90-100 %

# National priorities 2040

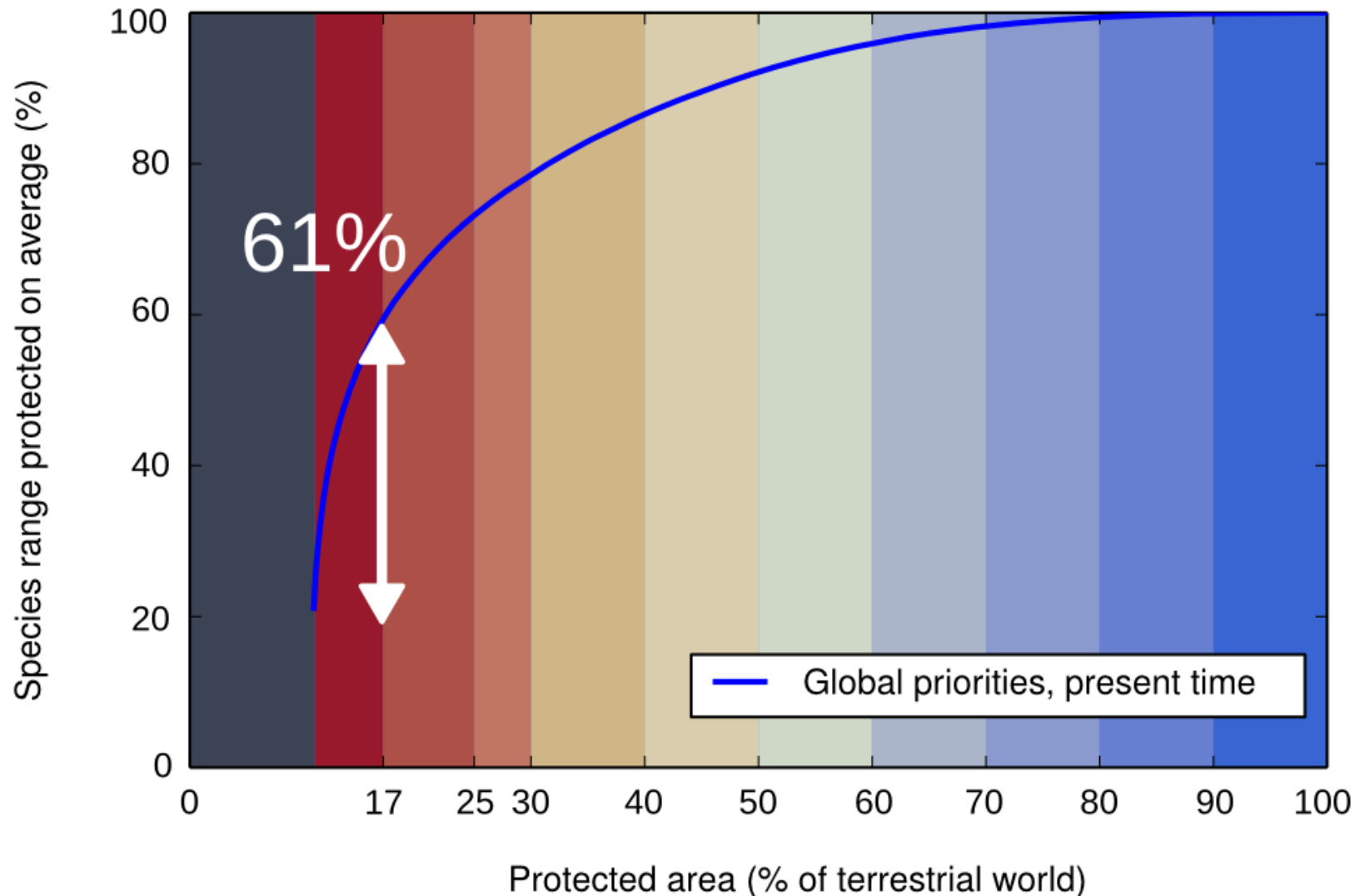


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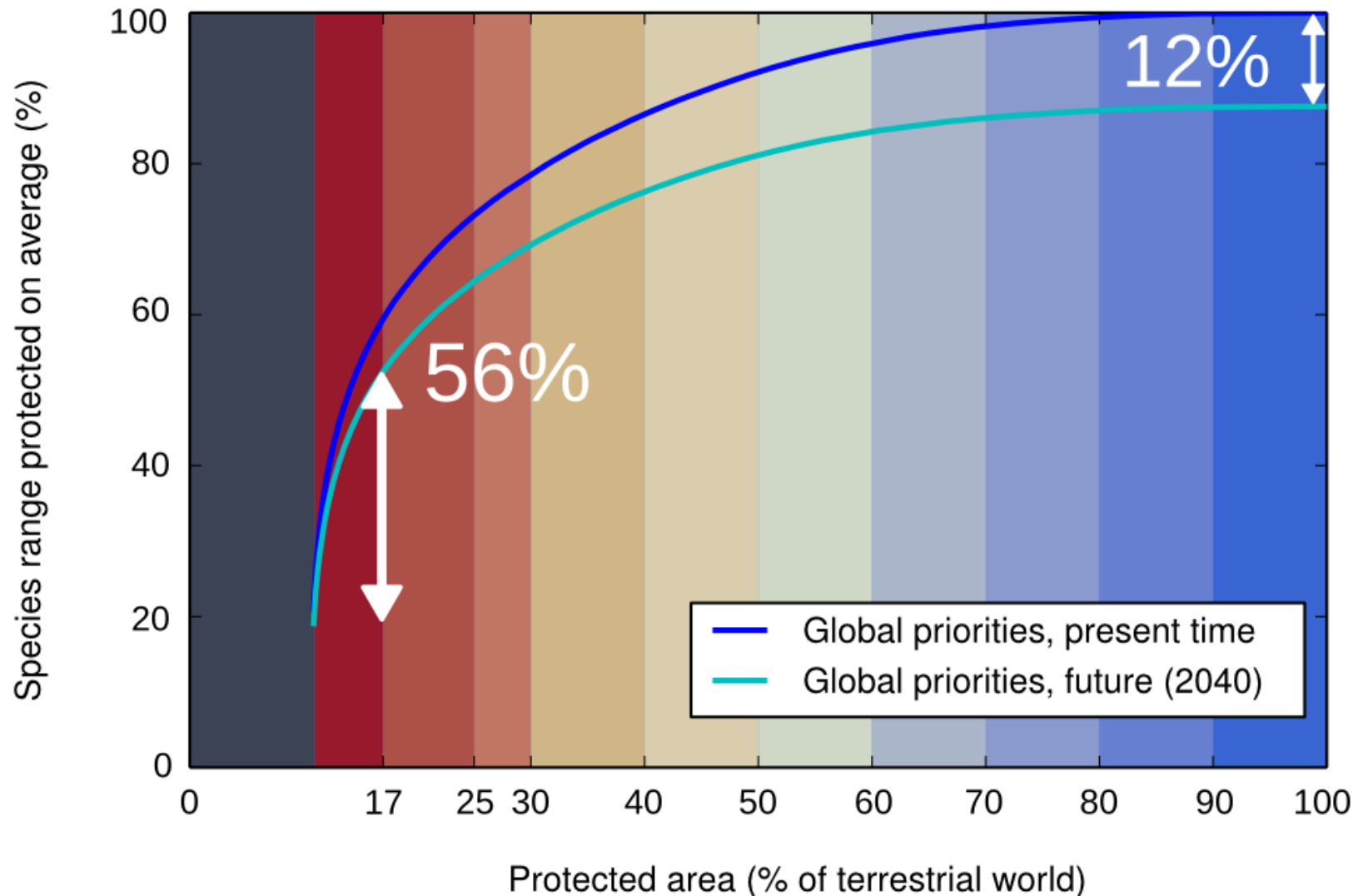
# Representation of species ranges



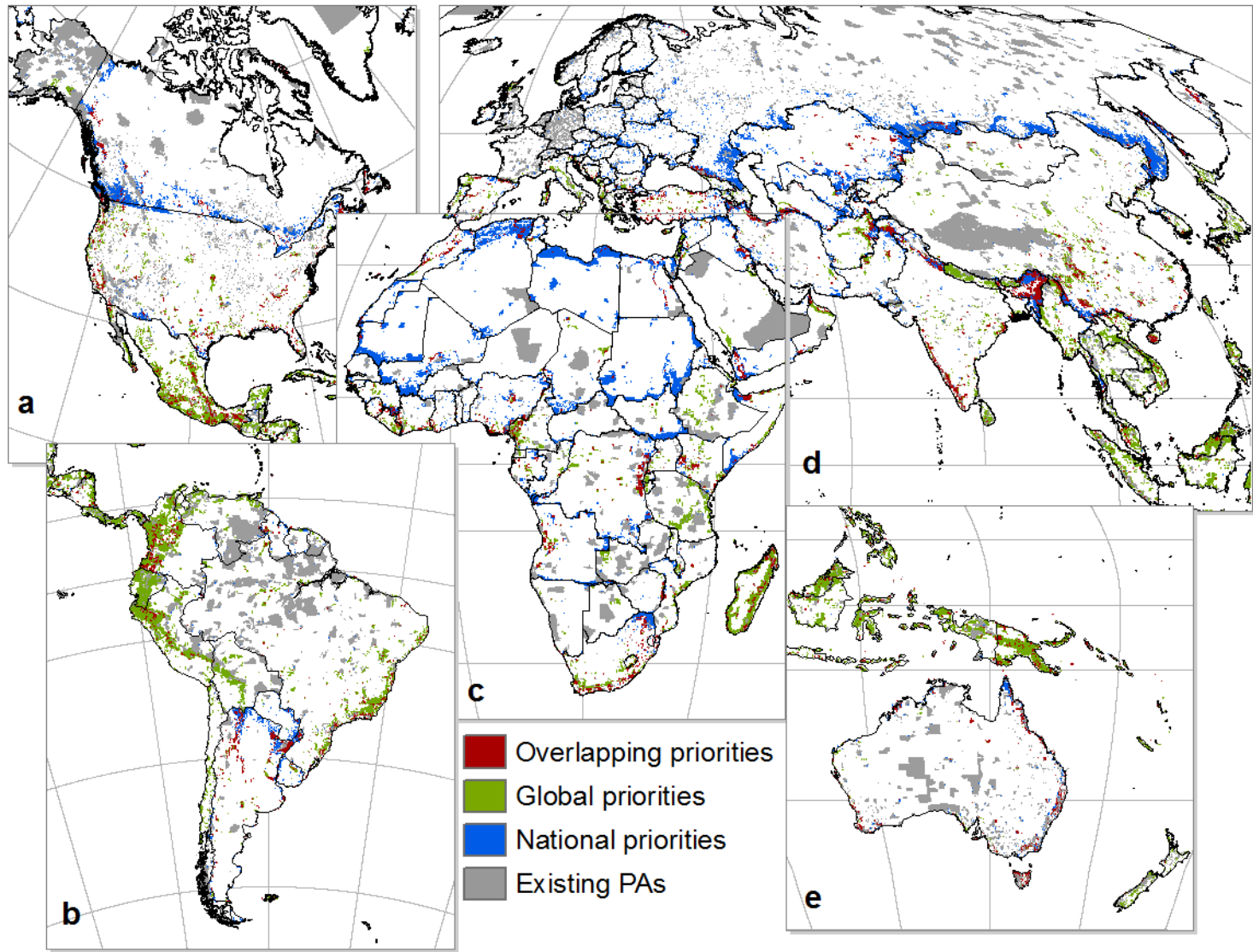
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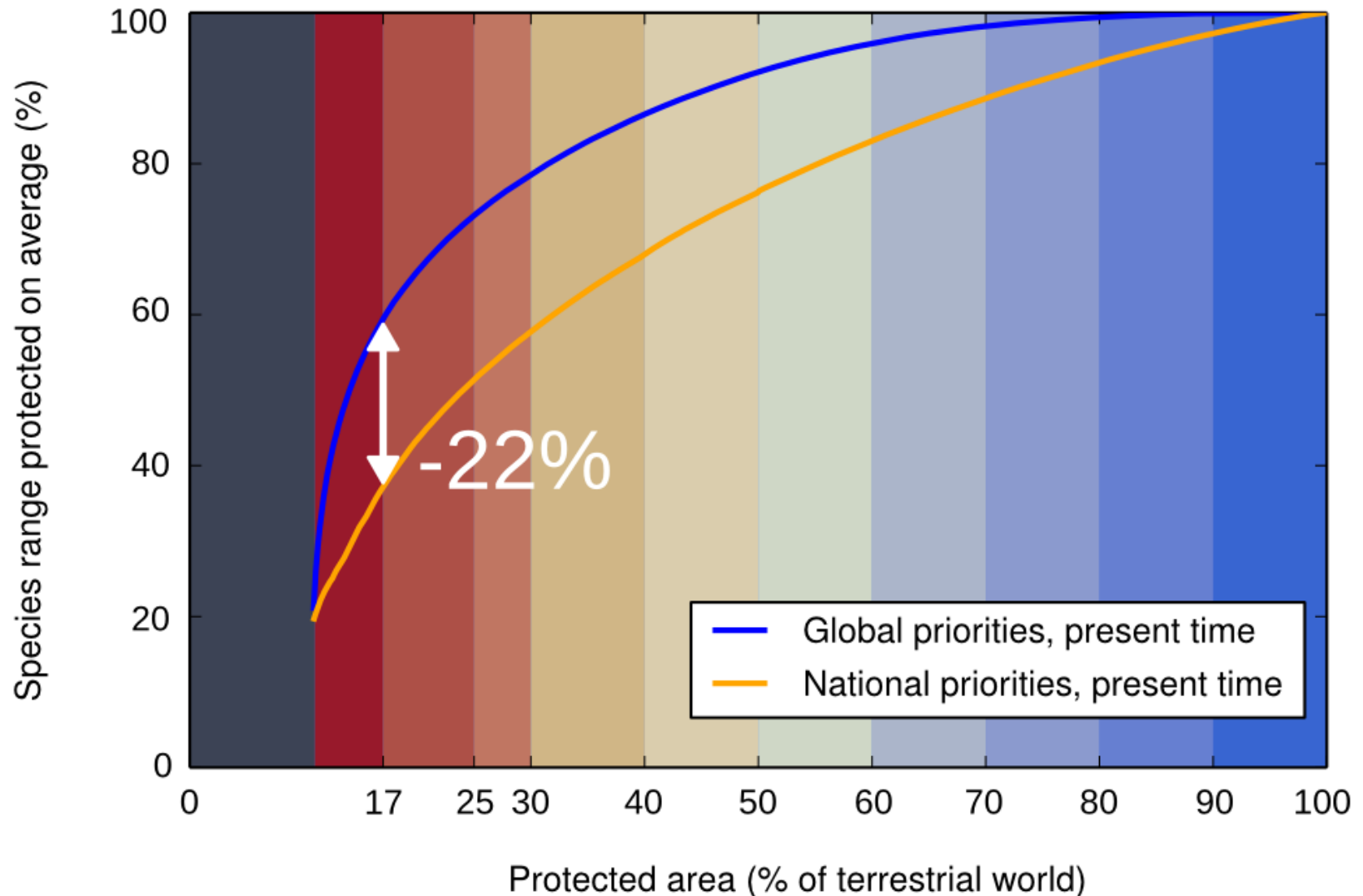


# National or international 17%?

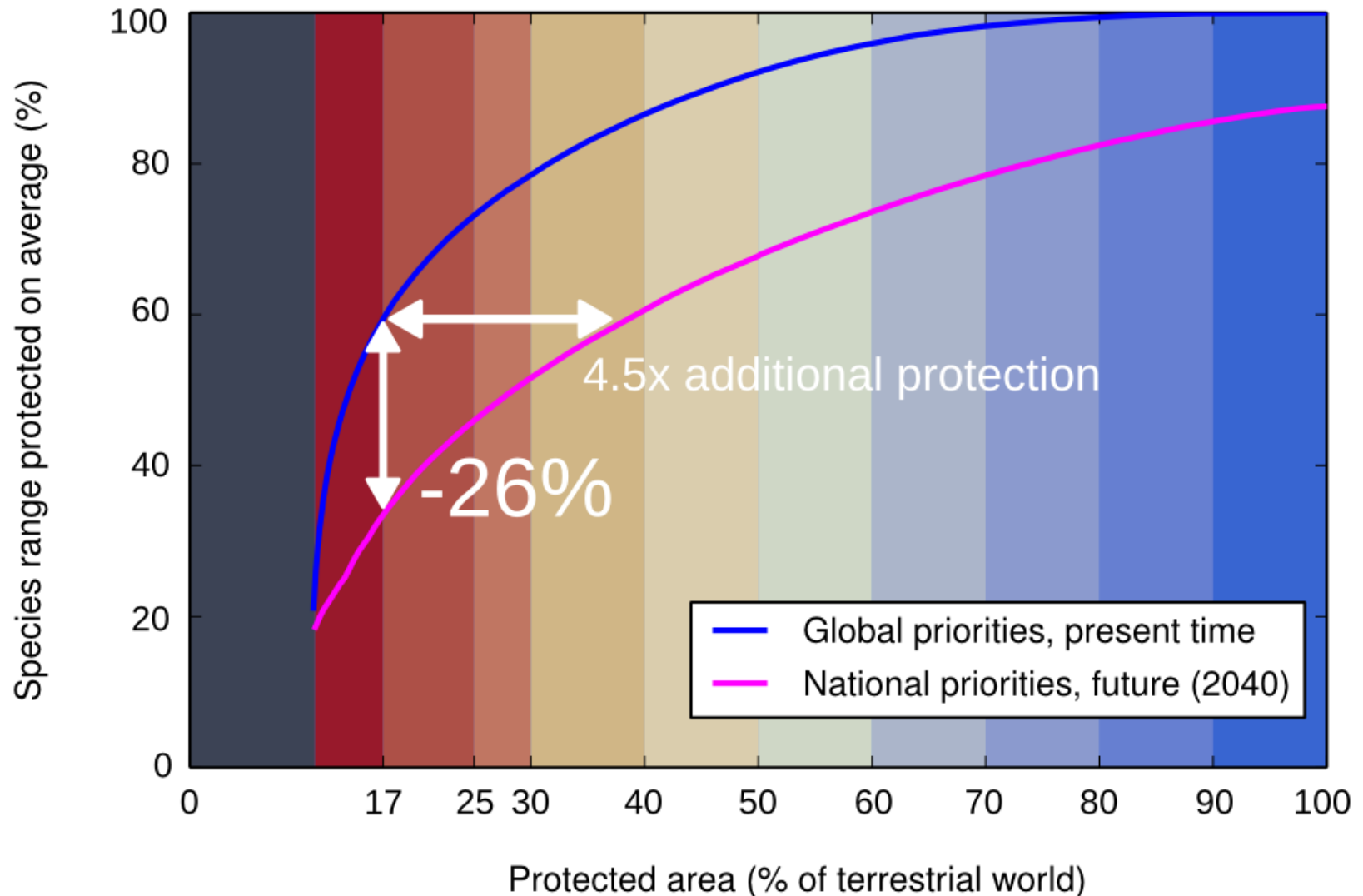




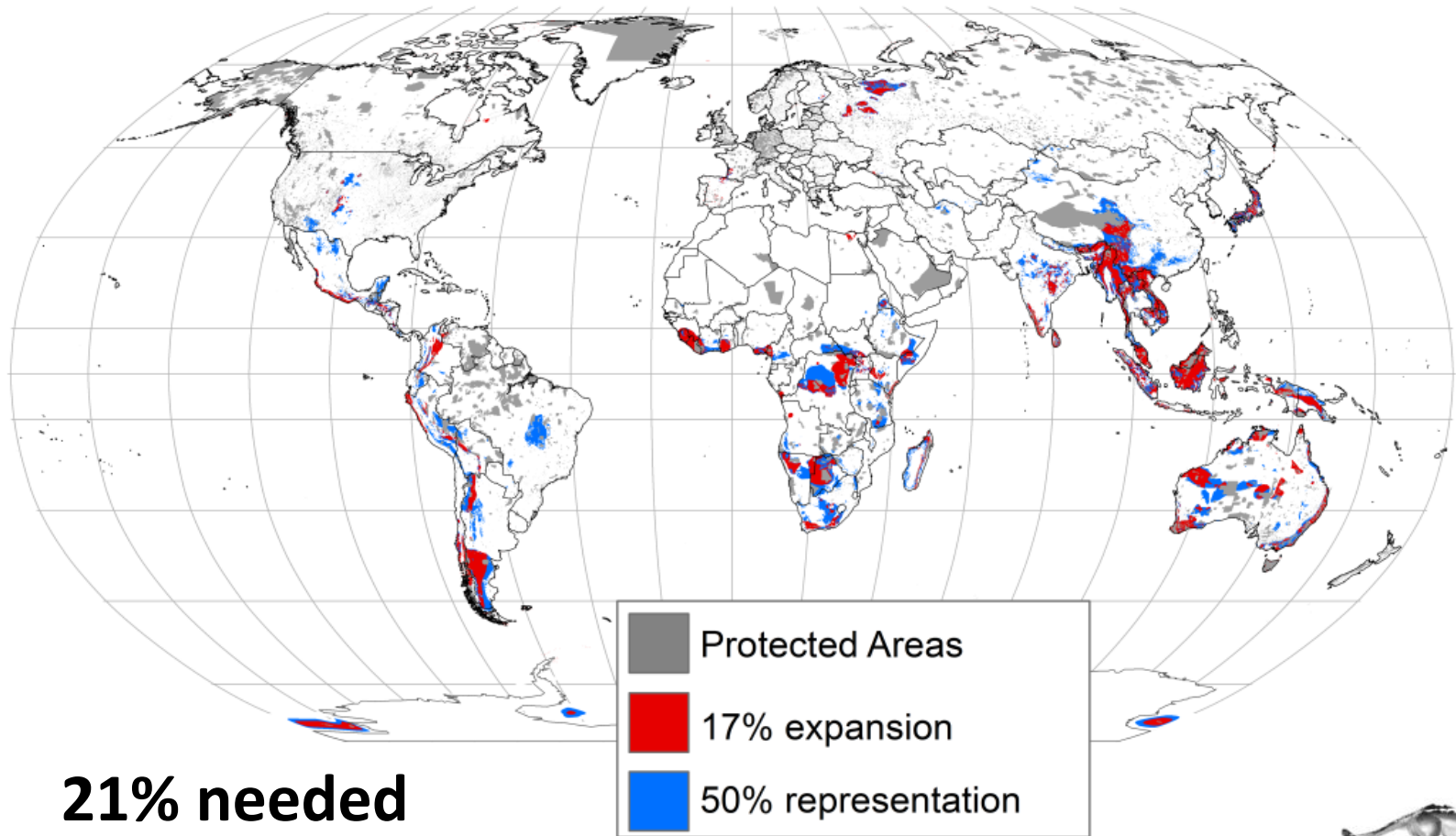
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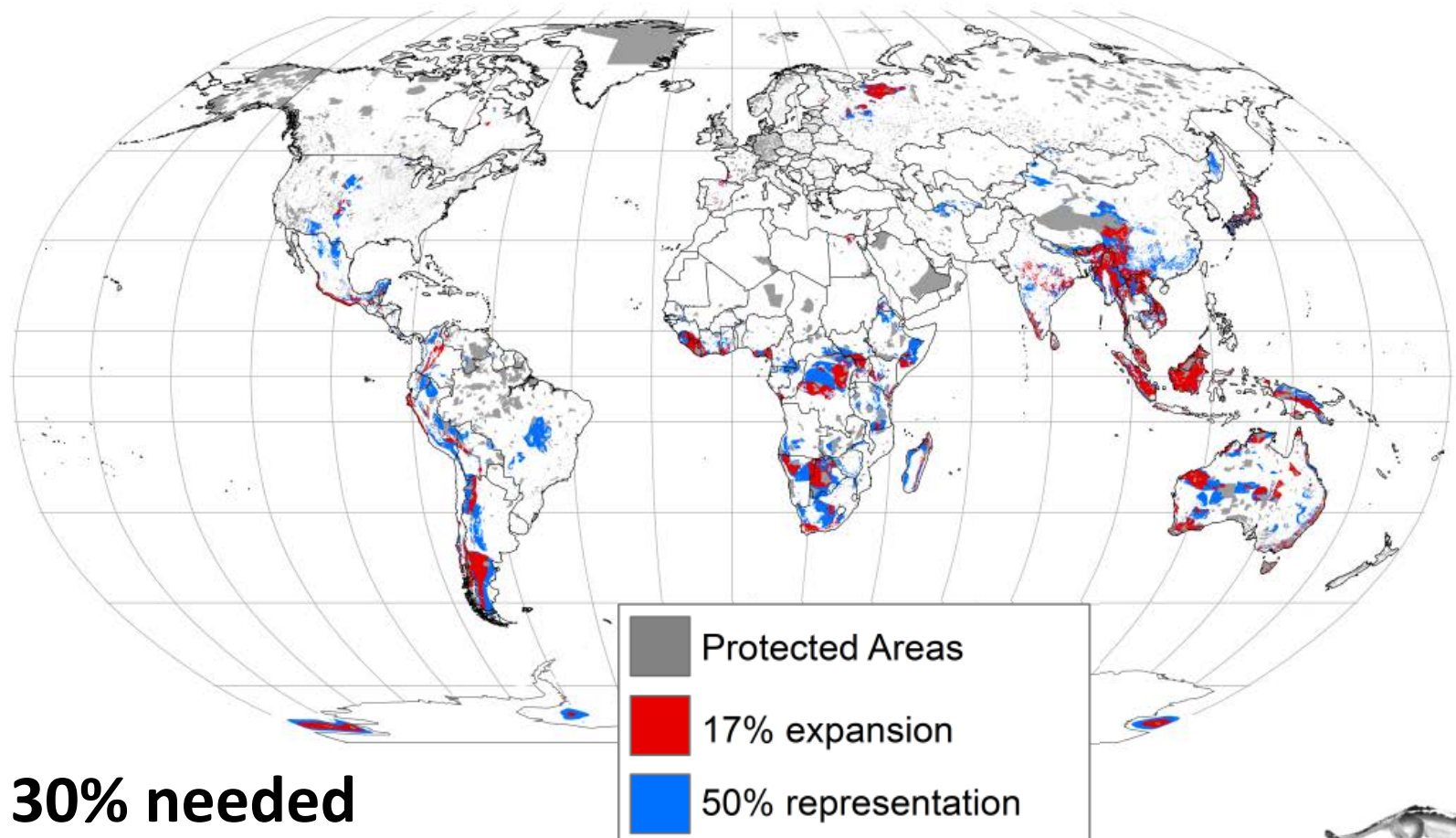


# Wide-ranging species - present



*Di Minin et al. Under Review*

# Wide-ranging species - 2040



**30% needed**

# Conclusions

- **The 17 % expansion target has great potential**
- **Land use change will change conservation needs**
- **International collaboration is vital**
- **Additional conservation actions are needed**

# Special thanks



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*PhD. Tuuli TOIVONEN*

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