IUCN WCPA Technical Note Series No. 8, Updated October 2023 ROLE OF PROTECTED AREAS IN CLIMATE CHANGE MITIGATION AND BIODIVERSITY CONSERVATION
Broad Policy Consensus
There is general consensus that biodiversity loss and climate change are twin crises requiring integrated, comprehensive and holistic approaches. As aptly articulated by António Guterres, Secretary-General of the United Nations, the twin global challenges of climate change and biodiversity loss have to be tackled in a

While areas rich in biodiversity and high in carbon do not always overlap, it is always the case that carbon retention in ecosystems is dependent of ecological integrity, which in turn is underpinned by an and biodiversity value.

Where they do overlap, there is potential to significantly improve the protection of species rich ecosystems. In one global analysis, Soto-Navarro *et al* (2020)²² found an overlap of 38% between carbon richness and a biodiversity index that prioritizes areas of high biodiversity (measured as high species richness, range-size rarity), high local intactness and high habitat condition, with 12% of the overlap area falling within existing PAs. The same authors found only a 5% overlap between carbon richness and a biodiversity index that prioritizes high local biodiversity, low average habitat condition and high threats to biodiversity, but 21% of the overlap area fell within existing PAs (Figure 2). There is potential for increasing protected areas where the overlap is high and protection is low.

Figure 2. The top map depicts the area of overlap between areas of high local biodiversity (high species richness, range-size rarity), high local intactness and high average habitat condition with carbon-richness. The bottom map depicts the area of overlap between areas of high local biodiversity, low average habitat condition and high threats with carbon richness. The dark brown areas depict the areas of highest overlap. Reprinted with permission²².

Protected areas have been estimated to store about 15.2% of

Protected and Conserved Areas, as well as the conservation corridors that connect them