NATURE'S CONTRIBUTIONS TO PEOPLE IN THE FIRST DRAFT OF THE POST-2020 BIODIVERSITY FRAMEWORK

Policy Brief—March 2022

Over the last two years, more than 85 countries have announced their commitment to protect at least 30% of the globe's land and ocean by 2030 under Target 3 of the Global Biodiversity Framework (GBF). This global 30x30 Target aims to halt the accelerating loss of species and protect vital ecosystems that are the source of our economic security. We applaud the leadership of these countries and encourage similar ambition from these countries on other Targets that will affect how the remaining 70% of the earth is sustained.

This policy brief summarizes new scientific developments that support the identification of the places providing the highest levels of ecosystem services at global and national levels and suggests how to best use these scientific developments in the Goals and Targets of the GBF. If the GBF will be successful at sustaining nature's many contributions to humans, then these special places must be prioritized for conservation, sustainable use and/or restoration.

Conservation Internationals' comprehensive policy recommendations on other Goals and Targets in the post-2020 GBF are available here.

Prioritize the ecosystems that provide nature's contributions to people

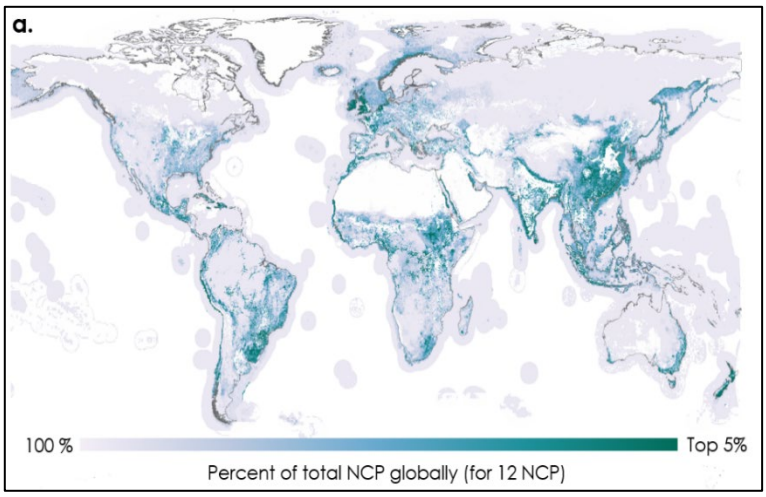
Nature provides a range of goods and services to people, such as supporting economic growth, sustaining livelihoods, and providing the basis for food, water, and climate security. These are collectively described here as ecosystem services or "Nature's Contributions to People" (NCP).[1] We recommend that Goal B and Targets 8-11 of the GBF be restructured so that they explicitly call for the conservation, sustainable use, and/or restoration of the **places most important for delivering nature's contribution to people**.

Knowing where to take action is key to this approach. Recent scientific advances have produced maps showing the global distribution of ecosystems providing services[2] related to water quality regulation (nitrogen, sediment), food provision (pollination, grazing, riverine and marine fish), timber and fuel production, flood regulation and coastal risk reduction, and access to marine and terrestrial areas for recreation and gathering of resources. These maps allow us to know exactly where the places are that are most important for delivering ecosystem services. This information can then guide choices for how different resources are managed to ensure that these places remain healthy–both at global and national scales.

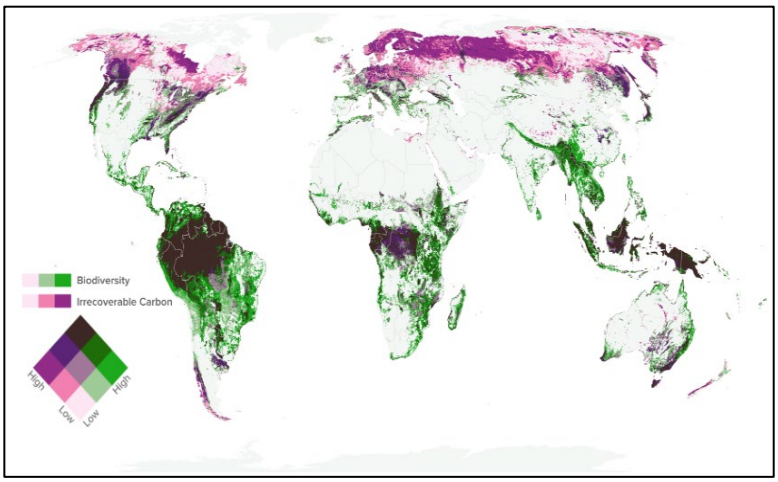
The following maps provide a useful visual to understand how nature's contributions to people are concentrated in some places.

[1] Nature's contributions to people include a range of benefits. While recognizing there are some differences in interpretation, we use the terms "nature's contributions to people and "ecosystem services" synonymously in this paper.

[2] Chaplin-Kramer et al, *in prep. Global critical natural assets. bioRxiv 2020.11.08.361014;* doi: https://doi.org/10.1101/2020.11.08.361014.



Critical Natural Assets – Global assessment. Source: Chaplin-Kramer et al, *in prep. Global critical natural assets. bioRxiv 2020.11.08.361014;* doi: https://doi.org/10.1101/2020.11.08.361014



Global Irrecoverable Carbon & Biodiversity. Source: Noon et al. 2021 for Irrecoverable Carbon. BirdLife and IUCN Red List spatial data for birds, mammals, amphibians, and reptiles.

Maps showing the global distribution of irrecoverable carbon, the carbon in ecosystems that must be maintained to meet global climate goals, were published in the November 2021 issue of *Nature Sustainability*.[3] The maps are available for decision makers to explore at the Conservation Resilience Atlas.[4]

These maps can be used in conjunction with existing data, allowing decision makers and planners to prioritize the conservation, sustainable use and/or restoration of areas based on several sets of criteria. For example, the map shown below overlays the global distribution of irrecoverable carbon with biodiversity data on habitat ranges of all known birds, mammals, amphibians, and reptiles, collected by hundreds of scientists over decades. In this case, 75% of irrecoverable carbon and habitat for 87% of threatened species can be found in **less than 14% of Earth's land**, with key overlap in the tropics.

These types of analyses can guide choices to ensure that we maintain the places we most need for our own wellbeing and to support a transition to a greener and more resilient model of economic development – both at global and national scales. The key will be to ensure that the most important places are prioritized, while still making management choices that maintain a large proportion of nature through a variety of measures and use levels depending on the sensitivity of the ecosystem and the services it provides.

Conservation International supports the use of science-based indicators that can help track progress toward achieving outcomes that have positive impacts on biodiversity and humanity. The following table provides text suggestions for Goal B and Targets 8-11 and potential indicators which draw heavily from the UN System of Environmental-Economic Accounting – Ecosystem Accounting (SEEA EA) approach.

For more information, please contact:

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Jill Hepp
Senior Director, International Policy
jhepp@conservation.org

[3] Noon, M.L., Goldstein, A., Ledezma, J.C. et al. Mapping the irrecoverable carbon in Earth's ecosystems. Nat Sustain (2021). https://doi.org/10.1038/s41893-021-00803-6. Goldstein et al. 2020. Protecting the irrecoverable carbon in Earth's ecosystems. Nature Climate Change. https://www.nature.com/articles/s41558-020-0738-8.

[4] Full URL available here: https://irrecoverable.resilienceatlas.org/.

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Suggested Text and Indicators

Goal/ Target	Suggested Text	Suggested Headline Indicators	Suggested Components	Suggested Component Indicators
Goal B	Nature's contributions to people are valued, maintained or enhanced through conservation and sustainable use*, and/or restoration of the places most important for delivering these contributions,* supporting the global development agenda for the benefit of all.			
2030 Milestone B.1	*All financial flows are aligned with the Convention through accurate valuation of* nature and its contributions to people ~~are fully accounted and~~ *in national accounts and financial disclosures*, to inform all relevant public and private decisions *and support the conservation, sustainable use and/or restoration of areas providing key ecosystem services*.			
2030 Milestone B.2	The long-term sustainability of all categories of nature's contributions to people is ensured, ~~with those currently in decline restored~~ *and places most important for providing these contributions are conserved, sustainably used, and/or restored*, contributing to each of the relevant Sustainable Development Goals.			
Target 8	Minimize the impact of climate change on biodiversity, contribute to mitigation and adaptation through ecosystem based approaches and *through the conservation, sustainable use, and/or restoration of the places most important for delivering these contributions*, contributing at least 10 $GtCO_2e$ per year to global mitigation efforts, and ensure that all mitigation and adaptation efforts avoid negative impacts on biodiversity.	8.0.1 National green-house gas inventories from ~~land use and land use change~~ *Agriculture, Forestry and Other Land Use (AFOLU)*	*Nature's contributions to climate mitigation*	*State and trends in extent (hectares) and condition (% change) of places important for climate mitigation, particularly high carbon ecosystems, especially those containing global Irrecoverable Carbon. (**Covered in SEEA Carbon accounts and Ecosystem services accounts**)* *Flows from places providing climate mitigation services as measured by amount of carbon dioxide retained/sequestered in tonnes. (**Covered in SEEA Ecosystem and Carbon Accounts**)*
		State and trends in extent and condition of places providing globally important services for climate mitigation and adaptation, and trends	*Nature's contributions to climate adaptation, Disaster Risk Reduction and Disaster Resilience*	*State and trends in extent and condition of places providing Disaster Risk Reduction or Disaster Resilience as measured by number of properties or area of coast protected (coastal protection services). (**Covered in SEEA Ecosystem Accounts**)*

		in flows of benefits from those places.		*Flow of benefits as measured by lives protected.*
Target 9	Ensure benefits, including nutrition, food security, medicines, and livelihoods for people especially for the most vulnerable through *the conservation,* sustainable management*, and/or restoration of the places most important for delivering these contributions* ~~of wild terrestrial, freshwater and marine species~~ and protecting customary sustainable use by indigenous peoples and local communities.	*State and trends in extent, condition of places providing globally important services for food security and nutrition, and trends in flows of benefits from those places.*	*Nature's contributions to crop pollination.*	*State and trends in extent (hectares) and condition (physical structure, species composition) of places providing habitat for pollinators (**Covered in SEEA Ecosystem Accounts**)* *Condition (diversity, abundance, and distribution) of pollinator species as measured by Red List Index. (**Covered in SEEA Biodiversity accounts**)* *Flow of pollination services as measured by the pollination yield gap. (**Covered in SEEA Ecosystem accounts**)*
			Nature's contributions to wild harvest foods.	*State and trends in extent (hectares) and condition (physical structure, species composition) of places providing habitat for wild plants and animals that are used for food. (**Covered in SEEA Ecosystem Accounts**)* *Flow measured as proportion of caloric, protein, and/or micronutrient need met by wild harvested foods.*
Target 10	Ensure all areas under agriculture, aquaculture and forestry are managed sustainably, in particular through the conservation*,* ~~and~~ sustainable use*, and/or restoration of the places most important for providing ecosystem services,* increasing the productivity and resilience of these production systems.			
Target 11	Maintain and enhance natures' contributions to regulation of air quality, quality and quantity of water, and protection from hazards and extreme events for all people *through the conservation, sustainable use, and/or restoration of the places most important for delivering these contributions*.		11.2 ~~Quality and quantity of water~~ *Nature's contribution to water purification (quality).*	*State and trends of extent (hectares) and condition (physical structure or species composition) of ecosystems that remove pollutants from water and/or yield clean water for dilution. (**Covered in SEEA Ecosystem Accounts**)* *Water purification flows providing water quality amelioration as measured by nitrogen retention. (**Covered in SEAA Ecosystem Accounts**)*
			Nature's contribution to	*State and trends of extent (hectares) and condition (physical structure or species*

			regulating water flows (quantity and timing)	*composition) of ecosystems that regulate water flow through storage and delayed release. (**Covered in SEEA Ecosystem Accounts**)* *Trends of quantity and timing of water flow by volume (m3) to track changes in baseline flow maintenance and flood dynamics (**Covered in SEEA Ecosystem Accounts**)*
			11.3 ~~Protection from hazards and extreme events~~ *Nature's contributions to climate adaptation, Disaster Risk Reduction and Disaster Resilience*	*State and trends in extent and condition of places providing Disaster Risk Reduction or Disaster Resilience as measured by number of properties or area of coast protected (coastal protection services). (**Covered in SEEA Ecosystem Accounts**)* *Flow of benefits as measured by lives protected.*