

WCPA input for IUCN position on CBD Post 2020 targets

Kathy MacKinnon, Harvey Locke, Stephen Woodley and Dan Laffoley

September 13, 2019

Executive summary

The Vision of the Strategic Plan for Biodiversity is *"Living in Harmony with Nature" where "By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people."*

Despite this vision, and the actions to implement it since 2010, biodiversity is continuing to decline. IUCN has therefore proposed as a 2030 Mission: *Implement all actions necessary and sufficient to halt the loss of species, ecosystems, and genetic diversity, as essential for achievement of the 2050 Vision and sustainable development.* Protected and conserved areas are proven and fundamental approaches to halt biodiversity loss, while providing a range of human benefits and contributing to the reducing global carbon emissions.

WCPA recommends the IUCN position on area-based conservation for the Post 2020 targets include the following:

1. The successor to Aichi Target 11 should call for the effective protection of at least 30% of both land and ocean by 2030.

Other targets should call for more sustainable use and management in surrounding production landscapes and seas to reduce biodiversity loss globally.

2. The quality elements already present in Aichi Target 11 should be further emphasised and strengthened. These include a focus on management effectiveness and equitable governance, areas protecting important biodiversity, and ecological connectivity.
3. Additional elements to include in a future area-based conservation target are large scale conservation networks that include connectivity between protected areas; a focus on protected areas for endangered and threatened species or ecosystems, and the need for retention of ecologically intact wilderness areas.
4. The Three Global Conditions for Biodiversity Conservation and Sustainable Use implementation framework provides a practical implementation framework for area-based conservation and sustainable use under the CBD.
5. Targets for protected and conserved areas (OECMs) must be put in the larger context of moving to 100% sustainable management of all land and sea.

6. We need to find better quantitative ways to measure and track all elements of any new biodiversity targets.

Discussion

It is widely recognized that we are facing both a global biodiversity and a global climate change crisis. In recent decades, set against such rising concerns, much attention has been focused on the urgent need to scale-up area-based conservation targets employed by the global community.

It is clear that, although percentage protected areas targets do drive ambition, the area target in Target 11 nowhere near sufficient to address the scale of the biodiversity crisis. Percentage targets must be complemented by measurable objectives that ensure that areas of importance for biodiversity are protected and conserved and that they are effectively governed and managed. There is also a need for area-based conservation to be integrated across wider landscapes and seascapes. We note that the definition of 'ecosystem' in the CBD includes not only species, genes and ecosystems but also their interaction with abiotic processes. This is particularly important for climate change mitigation and adaptation with area-based conservation.

Two papers will be published this November in the Journal *Parks* that speak to the evidence underlying the Three Conditions framework and to the level of ambition needed for percentage targets. One provides the results of an extensive survey of scientists "Area-based conservation beyond 2020: A global survey of conservation Scientists" (Woodley et al. 2019 in prep. The other is a "Review of Evidence for Area-based Conservation Targets for the Post-2020 Global Biodiversity Framework" (Woodley et al. 2019)

Both the survey and literature review make it clear that there is widespread scientific support for a significant area-based conservation target, with a minimum target of at least 30 %. Indeed, some scientists are advocating 50% and there is evidence that some regions may need 70% or more protected. Conservation areas can take the form of protected areas and OECMS as both have been defined. The Three Conditions framework is a practical means to implement such necessary ambition.

We also note that the IUCN does not approach area-based conservation as a new topic. Resolution 50 from the World Conservation Congress in Hawaii calls for protecting *at least 30%* of the ocean in highly protected areas.

The challenge is that area-based conservation strategies differ by the conditions of a given country or ecoregion. One size does not fit all. And the strategies that are needed are heavily affected by the human uses of the areas in question. National strategies must also be globally integrated to protect the healthy functioning of the planet as a whole.

To address this a team of co-authors from around the world has developed the Three Global Conditions for Biodiversity Conservation and Sustainable Use implementation framework (Locke et al 2019) <https://doi.org/10.1093/nsr/nwz136>

We discuss each of these points below.

A Review of Evidence for Area-based Conservation Targets for the Post-2020 Global Biodiversity Framework

We conducted a review of the literature to determine scientific evidence for large scale percentage (%) area conservation targets. Percentage area targets have been determined from both a policy perspective and a scientific perspective. Our review shows that science-based estimates always produce higher percentages than policy-based estimates. Science-based estimates of the percentage area of the Earth, or of an ecological region, required to conserve nature vary by the biodiversity selection parameters. Most approaches use systematic conservation planning methods that add in various biodiversity values such as rarity or endangerment, representativeness, abiotic features, ecological connectivity and conservation of ecosystem services, including carbon. Other approaches used to set conservation targets include species-area curves and minimum ecosystem sizes to avoid regime shifts.

The review concludes that:

1. The minimum targets of 17% terrestrial and inland waters, and 10% marine and coastal targets from Aichi Target 11 of the Strategic Plan for Biodiversity 2011-2020 are not considered adequate to conserve biodiversity by any research findings, either for ocean or for land.
2. Percentage area targets cannot be considered in isolation from the quality considerations presented in Aichi Target 11. There is concern that a focus on percentage area targets might draw away from a focus on quality. Protected and conserved areas are policy tools to achieve nature conservation and need to be selectively located, properly designed, well governed and effectively and equitably managed to achieve effective biodiversity outcomes.
3. All approaches to setting conservation targets call for much higher percentage area targets than are currently in Aichi 11. There is no unequivocal answer to the question of what percentage of the earth, or of a region, should be protected in order to maintain biodiversity. The answers are complicated by spatial scale, patterns of biodiversity, and weaknesses in selection approaches. Studies that include a more complete set of values are universally very high; they estimate well over 50% and up to 80%. Studies that include a narrower subset of biodiversity values are lower, but rarely under 30%, and always with caveats that they are minimum or incomplete estimates. As such, protected area conservation targets should be established based on the desired outcomes (e.g. halting biodiversity loss by 2030).
4. The global protection of a minimum of 30% and up to 70%, or even higher, of the land and sea on earth is supported in the literature, whether by species-area curves,

systematic conservation planning, or minimum system size approaches. Importantly, the suggested higher conservation targets are not discounted in any of the biodiversity literature. The call for 50% of the earth is a mid-point of these values and is supported by a range of studies.

5. Implementation of large global percentage area targets can be achieved through differentiating the kinds of areas that need protection at a national scale, and can be supported by nationally determined contributions in accordance with local conditions (see 3 conditions approach).

Scientific Survey article

In 2017-18 we surveyed 335 conservation scientists, from 81 countries, in English, French and Spanish to obtain their views on area-based conservation relating to Aichi Target 11 (Target 11) of 2010–2020 strategic plan of the Convention on Biological Diversity. Target 11 calls for, by 2020, the protection of 17% of land and fresh water and 10% of coastal and marine areas, combined with a range of qualitative elements. Our global survey examined scientists' views on the usefulness of both area-based conservation and percentage targets in general, the adequacy of the extent and quality elements of Target 11, the most effective way of identifying what percentage is needed and whether new quality elements should be added in a successor to Target 11.

The results can be summarized as follows:

1. Nearly unanimously, area-based or in-situ conservation is considered to be important to conserve biodiversity (99.3%).
2. All of the quality aspects of Target 11 are generally well supported, with strongest support for a focus on areas of importance for biodiversity (e.g. Key Biodiversity Areas), ecological connectivity, integration with broader landscapes and seascapes, and effective management.
3. Additional elements to include in future area-based conservation targets were identified; the three leading topics to add were large scale conservation networks that include connectivity between protected areas; endangered and threatened species or ecosystems, and ecologically intact wilderness areas.
4. Various methods from conservation biology were considered useful to establish area-based target's, with systematic conservation planning receiving the greatest support.
5. There is very strong agreement that Target 11, with its current percentage targets of 17% of land and freshwater and a 10% of marine areas, is not adequate to conserve biodiversity (79.8 % agreement).
6. Conservation scientists showed very strong support (76.1 % strongly agreed or agreed) for large scale percentage area conservation targets, in the order of 50% of the earth as suggested by Locke (2013) and Wilson (2016).

Resolution 50

Resolution 50 was passed at the 2016 Hawaii World Conservation Congress with significant support from countries (89% in favour), NGOs and indigenous members (94% in favour). That resolution:

ENCOURAGES IUCN State and Government Agency Members to designate and implement at least 30% of each marine habitat in a network of highly protected MPAs and other effective area-based conservation measures, with the ultimate aim of creating a fully sustainable ocean, at least 30% of which has no extractive activities, subject to the rights of indigenous peoples and local communities by

a. committing to work towards designating and effectively implementing at least 30% of their national waters as MPAs and other effective area-based conservation measures, as provided for in IUCN's Protected Areas Management Categories and Governance types, by 2030; and

b. engaging constructively in establishing MPAs in areas beyond national jurisdiction, areas of joint international management and their own jurisdictions...

It also provides that IUCN “ENCOURAGES the Parties to the CBD to consider a new process for developing post-2020 targets to increase the percentage of marine areas highly protected to at least 30% by 2030. The key up-to-date peer-reviewed analysis underpinning resolution 50 was provided by O’Leary et al, 2016

This analysis was a key consideration in the precise wording used in the Promise of Sydney and subsequently in resolution 50.

https://portals.iucn.org/library/sites/library/files/resrecfiles/WCC_2016_RES_050_EN.pdf

The wording used in Resolution 50 (drawing directly from the Promise of Sydney) in relation to the amount of ocean to be included in MPAs is critical. Considering the link to scientific published peer-reviewed evidence the wording is ‘at least 30%’ to reflect the fact that evidence of the day indicated that around 30% was the modal amount, but that analysis showed the median and averages were higher at 35 and 37%. Thus 30% is the minimum recommended amount, and indeed in some circumstances (e.g. rare, threatened, fragile, vulnerable habitats) considerably more area may be needed, as those left unprotected are likely to be degraded or destroyed.

The ‘at least 30% target’ is also linked to two further sets of words – ‘high levels of protection’ and ‘of each habitat type’. The former is to make it clear that benefits with MPAs directly link to the level of protection – peer-reviewed literature time and time again demonstrates that high levels of protection afford greater arrays of benefits (Sala et al. 2018) *. The wording makes it clear that the target therefore needs to be applied to highly protected MPAs. For nature protection to be effective and durable, these highly protected sites must be complemented by good management outside, but good management is not a substitute for high-level protection. It cannot achieve the benefits that highly protected areas produce.

The reference to ‘each habitat type’ makes the point that the application of the target should be across the entire ocean estate rather than simply concentrated into a few huge areas of low conservation value but convenient as also of low economic value. This wording aims to secure

meaningful biodiversity representation in the application of the target. The above concerns, amongst other issues, have been the stimulus for the 'three conditions' concept concerning the post 2020 biodiversity target agenda.

Since the Hawaii World Conservation Congress of 2016, concern has mounted further about the need for greater protection. In the ocean we need to manage it all sustainably, and it is likely in an addition to the already agreed 'at least 30%' target in Resolution 50, an additional 20% or so of the seas may have to be treated as climate crisis management zones. This is because business as usual will fail in areas such as the tropics and poles, as they disproportionately heat up, and their waters progressively acidify and lose oxygen. These existential threats to life are happening now at a worldwide scale.

Three Conditions Framework

There is a clear need to scale up ambition for protected areas and OECMs to cover about half the world. The challenge is that area-based conservation strategies differ by the conditions of a given country or ecoregion. One size does not fit all. And the strategies that are needed are heavily affected by the human uses of the areas in question. National strategies must also be globally integrated to protect the healthy functioning of the planet as a whole. The Three Global Conditions for Conservation and Sustainable Use provides a framework for implementation.

Defined by integrating nature-centric (what remains of nature) and human-centric (human land-use) assessments of drivers and pressures on biodiversity, the Three Conditions are farms and cities (highly utilised areas), shared landscapes and large wild areas. According to each condition, suites of conservation responses and production practices are proposed to improve the state of biodiversity and to secure nature's contributions to people while allowing for ambitious global targets. This approach achieves scale and fairness by ensuring that every Party has a program of action to address the condition of its own biodiversity domestically with like actions for similar conditions across the world. It also provides a baseline that allows nations to consider their global role based on common but differentiated responsibilities for the health of our global ecosystem.

The Three Conditions framework evaluates land-use drivers and human pressures to establish a baseline state of three broad terrestrial conditions: Cities and Farms cover 18% of land (C1), Shared Lands 56% (C2), and Large Wild Areas 26% (C3). It maps all but Antarctica (see map in link) and enables development of suites of conservation responses and production practices appropriate for each condition that are clustered on a continuum from those appropriate to the most heavily impacted areas to those best suited to the wildest areas remaining on Earth. These include:

C1: Increase conservation efforts to secure endangered species and protect all remaining primary ecosystem fragments. Mainstream sustainable practices such as

protecting good farmland, practising productive regenerative agriculture, and keeping nitrogen out of freshwater. Maintain pollinators and increase ecological restoration. “Green” cities to reduce carbon emissions, prevent urban sprawl, and provide access to nature for urban dwellers’ health and well-being.

C2: Establish “ecologically representative and well-connected systems of protected areas (PAs)” while increasing coverage of Key Biodiversity Areas (KBAs); restore and maintain ecological processes and viable populations of native species (ensure area protected is in the range of 25-75% per ecoregion) [6]. Across landscapes integrate sustainable natural resource extraction and activities such as tourism, grazing and use of wildlife (where appropriate and sustainable) with indigenous knowledge and well-managed, equitable and properly funded PA networks.

C3: Retain overall ecological integrity and associated global processes such as carbon storage and rainfall generation, fluvial flows and large migrations; prevent further fragmentation allowing only rare nodes of intense industrial development enveloped in a largely wild matrix. Remove and restore anomalies. Establish large PAs and indigenous and community conserved areas. Secure indigenous knowledge and livelihoods.

Most of these responses and practices are already found across the Aichi Targets. Some actions identified for one condition may be applicable in another. In addition, ecological connectivity should be secured across all three conditions for resident and migratory species and for resilience to climate change.

Intended for simultaneous use, these conservation responses and sustainable practices form a coherent basis for common national actions and international cooperation for ambitious efforts to protect the “earth ecosystem”. The Three Conditions Framework provides for strategies that can be applied nationally that add up to global goals. It is also a framework for non-state actors. Countries with similar conditions have similar responsibilities and options for domestic action. Developed nations can also support efforts elsewhere, especially when their trade footprints cause biodiversity loss in other countries.

This framework has been developed for the world’s land. We are developing a similar marine framework.

Conclusion

It is now acknowledged by many governments that there is both a biodiversity extinction crisis and a climate change emergency. It is time for IUCN to be bold and clear. We therefore recommend that the IUCN position on area-based conservation in the Post 2020 targets includes the following:

1. The successor to Aichi Target 11 should call for the effective protection and management of at least 30% of both land and ocean by 2030.
2. The quality elements already present in Aichi Target 11 are very important but require greater efforts for implementation with explicit, measurable targets. They should be supplemented with explicit reference to areas important for endangered species, planned ecological networks, and large wild areas.
3. Additional elements to include in a future area-based conservation target are large scale conservation networks that include connectivity between protected areas; endangered and threatened species or ecosystems, and ecologically intact wilderness areas.

The Three Global Conditions for Biodiversity Conservation and Sustainable Use provide a practical implementation framework for area-based conservation and sustainable use under the CBD.