Response to CBD Notification 2018-063:
Initial views on the scope and content of the post-2020 global biodiversity framework

Submitted by: Wildlife Conservation Society (WCS)
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About WCS

The Wildlife Conservation Society (WCS) is a non-profit, international non-governmental organization (NGO) that has been working across the globe for more than 120 years to save wildlife and wild places. We have conservation programs on the ground in more than 60 countries across Asia, Africa, the Pacific and the Americas that work to support governments, local and indigenous communities, and other partners. We focus our *in-situ* conservation efforts on critical wildlife habitat nested within the world's most intact and biologically diverse terrestrial and marine ecosystems — the landscapes and seascapes with the greatest chance of conserving species and ecosystems in the face of ongoing threats and increasing global change.

Our approach relies on generating and using the best science, as well as a recognition that conservation is a long-term investment that relies on partnership. We work closely with government partners and indigenous rights holders, as well as local communities and many other stakeholders on conservation efforts, including the implementation of legal obligations under international treaties such as the Convention on Biological Diversity (CBD). This has included support in developing and implementing National Biodiversity Strategies and Action Plans (NBSAPs), and other efforts to achieve the Aichi Targets. One example is Aichi Target 11 – WCS has worked with governments, indigenous groups and stakeholders

to help establish more than 270 protected areas, and we currently manage, co-manage, or assist with the conservation and management of more protected areas than any other conservation NGO (more than 470 sites). We also work across the globe in a range of other conserved areas, notably Indigenous Territories, from the Canadian Boreal to the islands of the Pacific.

We leverage our experience at the landscape and seascape scale to address regional and global conservation issues, including natural resource governance, illegal and/or unsustainable hunting and wildlife trade, the impacts of climate change, the relationship between food security and conservation, sustainable wildlife-based livelihoods, industrial development, and the relationship between wildlife, human, and livestock health.[1] We also look at the cumulative impacts of these issues across broader geographies. To complement our work with local, regional and national authorities, we also work closely with the International Union for the Conservation of Nature (IUCN) and other intergovernmental organizations to inform global conservation policy and action, as well as sector-specific initiatives that contribute to biodiversity mainstreaming. This provides us with a unique perspective that our experience demonstrates can help Parties negotiate a meaningful post-2020 framework for the CBD.

The Biodiversity Crisis

We are already in the midst of extensive, well-documented biodiversity loss. The expansion of humanity's footprint across both the terrestrial and marine realms is dramatic and ever-increasing,[2,3] and, as a consequence, the areal extent of terrestrial and marine ecosystems that can be still be considered intact and ecologically functional is dwindling.[4,5] The consequences for biodiversity are clear – ever increasing numbers of species facing decline and extinction, and the degradation of the critical ecosystem services that underpin the health of our planet and our own well-being.[6] With the advent of anthropogenic climate change, we are moving from a serious erosion of biodiversity to a serious ecological crisis – not only do species have to survive the destruction of critical habitat, but also fundamental changes to the climatic environments that they evolved in.

We must urgently work to retain those intact places on Earth that best sustain the ecological processes that most effectively conserve biodiversity, provide the ecosystem services humanity needs, and are resilient to the impacts of climate change.

There are many ways to achieve this retention, but one widely accepted, and celebrated, example of conservation success is of well-placed and well-managed protected areas. However, area-based protected area targets will no longer be sufficient on their own, as there is a wealth of evidence that even

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[1] Wildlife Conservation Society. 2004. 12 Manhattan Principles.

[2] Venter, O. et al. 2017. "Sixteen years of change in the global terrestrial human footprint and implications for biodiversity conservation." *Nature Communications*, Vol. 7, Article Number: 12558.

[3] Jones, K.R. et al. 2018. "The Location and Protection Status of Earth's Diminishing Marine Wilderness." *Current Biology*, Vol. 28, p. 2506–2512.

[4] Jones, K.R. et al. 2018. "One-third of global protected land is under intense human pressure." *Science*, Vol. 360, Issue 6390, p. 788-791.

[5] Potapov, P. et al. 2017. "The last frontiers of wilderness: Tracking loss of intact forest landscapes from 2000 to 2013." *Science Advances*, Vol. 3, Issue 1.

[6] Watson, J.E.M. et al. 2016. "Catastrophic Declines in Wilderness Areas Undermine Global Environment Targets." *Current Biology,* 26, 21, p. 2929-2934.

those nations with a large protected area estate are still not uniformly able to effectively conserve their biodiversity.[7,8,9]

An Opportunity for CBD

The framework for implementation of the CBD, including the current Strategic Plan for Biodiversity and the Aichi Targets, has stimulated governments and other stakeholders to work towards several important conservation objectives. The often celebrated expansion of the marine, coastal, and terrestrial protected area estate demonstrates that setting global targets can drive conservation action.

However, scientific research cited above demonstrates that the shared goal of effectively protecting the world's biological diversity and ecosystems has not been transposed into the investment and effort required to effectively manage protected areas, and this has hindered progress towards the overarching goals within the Strategic Plan. Furthermore, many protected areas have been established with insufficient regard to locations important for the persistence of biodiversity and instead to avoid conflict with other land uses.[10] And finally, a vast amount of biodiversity and many other ecosystem features will always exist in, or depend on, habitat outside of the protected area estate. Parties to the CBD will need to continue to think about the extraordinary value of protected areas, while also considering how to make up for the shortfalls in conservation and management of these protected areas. Parties also need to expand beyond this to setting goals that recognize the dependence of these sites on areas outside them. The unprotected, ecologically important portions of these landscapes and seascapes must be incorporated into the post-2020 framework to conserve biodiversity and ecosystems effectively.

The negotiation of a post-2020 framework provides an exceptional opportunity for CBD Parties to first outline an inspiring, unifying, comprehensive overall goal for nature conservation, which can then be used to target those specific high quality areas that will help secure the best gains for biodiversity, for nature and for people.

WCS recommendations on the scope and content of the post-2020 global biodiversity framework

1. Develop an evidence-based and ambitious global goal to identify and retain the nature we need.

The international community must recognize that the biodiversity crisis is worsening, and that each country needs to play a role, unique to its own circumstances and biodiversity, in reversing this trend. We will only achieve success through a collaborative effort, including strategies analogous to those being implemented in response to the climate crisis and other global environmental challenges. This global cooperation is established under Principle 7 in the Rio Declaration on Environment and Development:

> States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to

[7] Jankte, K. et al. 2018. "Poor ecological representation by an expensive reserve system: Evaluating 35 years of marine protected area expansion." *Conservation Letters*, in review.

[8] Watson, J.E.M. et al. 2016. "Bolder science needed now for protected areas." *Conservation Biology*, Vol. 30, Issue 2, p. 243-248.

[9] Geldmann J. et al. 2018. "A global analysis of management capacity and ecological outcomes in terrestrial protected areas." *Conservation Letters*, Vol. 11, Issue 3.

[10] Venter, O. *et al.* (2018). "Bias in protected-area and its effects on long-term aspirations of biodiversity conventions." *Conservation Biology*, Vol. 32, p.127-134.

> global environmental degradation, States have common but differentiated responsibilities.[11]

The Paris Agreement, negotiated and adopted under the auspices of the UN Framework Convention on Climate Change, is a complex international agreement that cannot be easily adapted to the context of biodiversity conservation. However, we recommend that Parties to the CBD take specific cues from the Paris Agreement discussions and other multilateral negotiations to facilitate the development of a post-2020 global biodiversity framework. One example set by the Paris Agreement is the joint commitment to a fundamental, collective goal of limiting global warming to well below 2 degrees Celsius. This provides a common framework that stakeholders from Parties, civil society, the private sector, and individual citizens can understand and contribute to.

The CBD needs a measurable, global target for biodiversity conservation, analogous to the collective goal of limiting warming to 1.5 to 2 degrees Celsius, set in the Paris Agreements.[12] We need our "Paris" moment: a communicable global goal for 2030 -- sometimes referred to as an "apex target," "apex goal," "milestone," or just part of a "2030 Mission" -- that holds together all of the priorities of CBD, but is also measurable and specific enough to both galvanize action and hold the international community accountable for progress. Like the shared 2-degree goal of the Paris Agreement, this global goal must address the end state that Parties wish to achieve, and allow the global community to evaluate scientifically whether it is on track to achieve it. It will also allow evaluation of the collective level of ambition needed from the global community, and the combined impact of the commitments from individual Parties. An implementation framework for this overarching and shared global goal would allow for additional commitments and contributions from civil society, indigenous and local communities, and the private sector.

WCS recommends that Parties to the CBD work together to create and adopt -- as a key part of the post-2020 framework -- a global goal for nature retention. Such a goal would be evidence-based, and prioritize securing, through a range of appropriate mechanisms, the survival of all important ecosystems (in the best possible condition), including the biodiversity they support and all the services they provide that are necessary for human wellbeing. The goal should be based on the best available science, and should be measurable and verifiable -- including through quantitative and/or spatially explicit sub-targets where appropriate. An overarching goal for nature retention will represent a desired end state that will achieve the vision of the CBD (to halt the biodiversity crisis).

A 2030 global goal for nature retention would necessarily be broad, but could be something along these lines:

> ***By 2030, all essential components of nature are effectively conserved or managed to ensure their contribution to the long-term integrity of the biosphere and the services needed for humanity.***

We propose that the global goal for nature retention be evidence-based – meaning that it would be derived from an analysis of the total extent of natural ecosystems, of appropriate quality and in appropriate locations, that humanity needs to fulfill all the functions of nature which have been identified

[11] United Nations Conference on Environment and Development. 1992. The Rio Declaration on Environment and Development (Preamble).

[12] Maron, M. et al. 2018. "Bold nature retention targets are essential for the global environment agenda." *Nature Ecology & Evolution*, Vol. 2, p. 1194–1195.

as essential (taking account of the capacity of some areas to serve more than one function). As conservation is not always inherently utilitarian, there is nothing preventing an ambitious global community from exceeding this target.

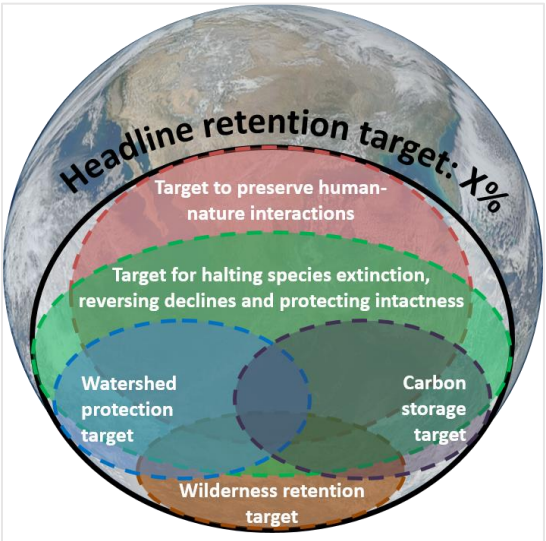

Figure 1. Overview of the kind of elements required within a nature retention target, and their relationship. Source: Maron et al. 2018.[13]

This global goal will also allow Parties to generate the necessary quantitative, measurable and verifiable objective- or outcome-level targets, including some that are spatially explicit, from preventing species extinction, to preserving the last intact ecosystems on the planet, to ensuring all of the ecosystem services that humanity relies on are retained at functional levels that allow us to achieve the UN Sustainable Development Goals (adopted by consensus in the UN General Assembly). These targets would include, critically, a target on ecological integrity or ecosystem intactness as described below. There would be additional targets for priority conservation actions (e.g. establishment of protected areas) and the creation of an enabling environment (e.g. sufficient resources and the phasing out of incentives, or subsidies that are harmful for biodiversity) that would provide guidance for voluntary commitments to be established within or outside of NBSAPs.

[13] Maron, M. et al. 2018. "Bold nature retention targets are essential for the global environment agenda." *Nature Ecology & Evolution*, Vol. 2, p. 1194–1195.

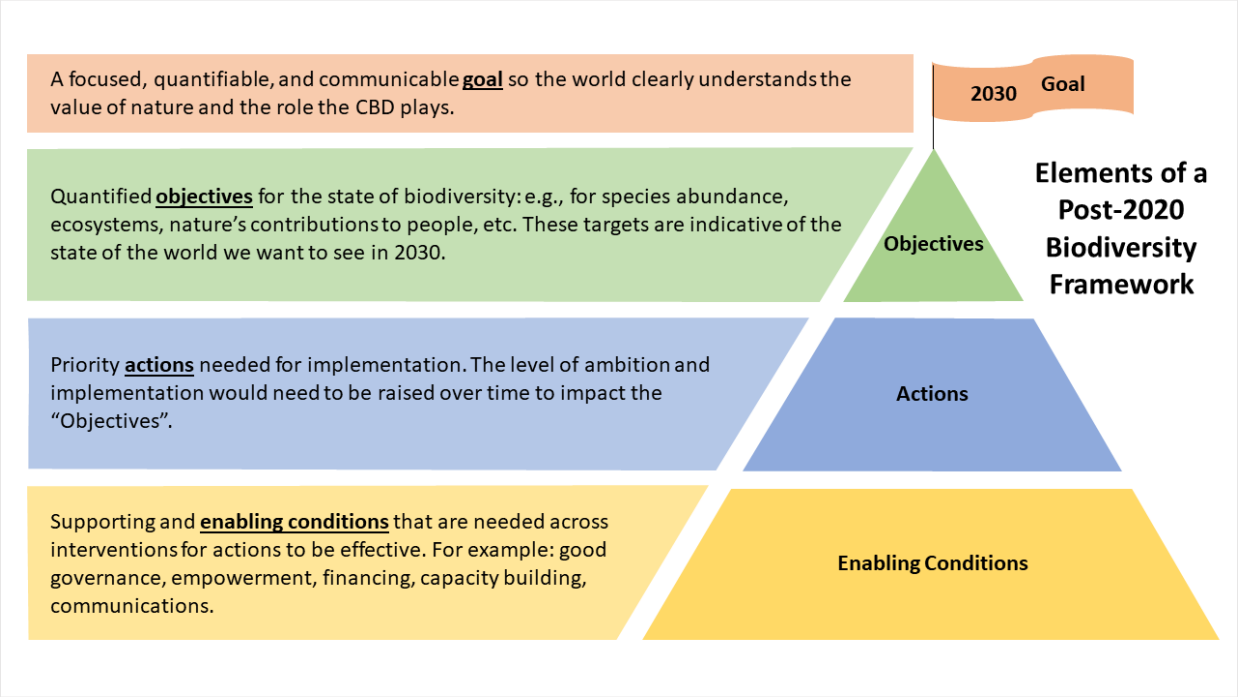

Figure 2. Elements of a Post-2020 Biodiversity Framework. *Note: WCS has co-signed a submission with other civil society organizations on the structure of a post-2020 framework. The figure above is from that submission.*

2. Increase the focus on intactness as part of this retention goal through a specific target.

A global goal as described in the previous section will necessarily be high-level, and will require additional objective-level (or outcome-level) targets for different aspects to help Parties prioritize actions at local, regional and global scales. These targets will need to address different aspects of the CBD, including halting species extinction and conserving the ecosystem functions that allow for sustainable use of biodiversity.

Ecosystem intactness (ecological integrity) is critically important for ecosystem health and resilience and is referenced in the Rio Declaration.[14] Those remaining intact landscapes and seascapes are the most resilient to the impacts of climate change and increasing development pressures, and offer some of the greatest potential for protecting biological diversity for future generations.[15] There is clear evidence in the scientific literature that highly intact ecosystems are Earth's remaining strongholds for biodiversity, and are increasingly critical in a time of climate change because of their higher levels of resilience. They are also ecosystems that provide enhanced services for human wellbeing. For example, the planet's remaining intact forest ecosystems support a much higher confluence of globally critical environmental values than degraded forests, such as carbon sequestration and storage, water provision, refuges for imperiled species, protection of indigenous cultures, and the maintenance of human health.[16,17] Retaining

[14] Principle 7 in the 1992 Rio Declaration on Environment and Development: "States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem"

[15] Martin, T.G. and J.E.M. Watson. 2016. "Intact ecosystems provide best defence against climate change." *Nature Climate Change*, 6, p. 122-124.

[16] Watson, J.E.M. et al. 2018. "The exceptional value of intact forest ecosystems." *Nature Ecology & Evolution*, 2, p. 599–610.

[17] Myers, S. S., Gaffikin, L., Golden, C. D., Ostfeld, R. S., H Redford, K., H Ricketts, T., et al. 2013. "Human health impacts of ecosystem alteration." *Proceedings of the National Academy of Sciences, 110(47), 18753–18760.*

the integrity of dwindling intact ecosystems should be an urgent priority for global efforts to not only halt the ongoing biodiversity crisis, but to adapt to the impacts of rapid climate change and achieve the UN Sustainable Development Goals and Agenda 2030.

Earth's remaining intact ecosystems are degrading rapidly, and ample experience demonstrates that once they are degraded it is often almost impossible to restore them to full functionality. Hence the only way to secure these systems in the best condition it is to conserve them proactively before anthropogenic impacts start to seriously erode their quality. It is also far more cost effective to retain intact ecosystems than to degrade them and attempt to restore them at a later date (assuming that would even be feasible).

Therefore, a key recommendation for Parties negotiating the post-2020 framework is that the new set of targets must, among other things, prioritize the need to secure a sufficient extent of the last remaining highly intact ecosystems on the planet (marine and terrestrial). Whilst wholly intact areas are exceptionally important, where levels of intactness are already at low or intermediate levels due to degradation, they should also be protected from further loss, and where possible increased via targeted restoration.

A new target that addresses intactness could be something along these lines:

By 2030, the value of ecosystem integrity is prioritized, and levels of ecological intactness are maintained or enhanced across all ecosystems, with a particular emphasis on maintaining the most intact areas.

Although not specified in the target itself, intact ecosystems can be identified using standardized measures of ecosystem loss, degree of human pressure, and degree of fragmentation and connectivity. Baselines exist for this target from satellite data for many ecosystem types, but measurement will need to be context-specific, based on the type of ecosystem and its location. WCS and our conservation partners are currently working to generate relevant metrics (e.g. a global intact forest quality metric, Red List of Ecosystems). Parties should have a wide variety of tools to choose from, based on their particular national context.

WCS is leading global efforts to study and protect highly intact terrestrial and marine ecosystems, including work with the Parties to CBD on:

Forests: WCS works to conserve some of the world's most intact tropical and boreal forest landscapes, with both government partners and local and/or indigenous communities. WCS has been working with a scientific consortium that includes the Universities of Queensland, Oxford and Maryland, and the World Resources Institute and WWF, to develop a global framework metric for measuring forest intactness based on ecosystem spatial and structural integrity, integrating measures of faunal integrity. This *"forest intactness metric"* will be a direct measure of the condition of a forest ecosystem and its biodiversity, relative to the natural, undisturbed state in a given locality, and will present a holistic indicator of the degree to which a forest ecosystem has or has not been degraded by human action.

Coral reefs: For decades, WCS has delivered locally relevant solutions for coral reef conservation in key geographies by rebuilding reef fisheries to sustainable levels, protecting healthy coral reefs within MPAs and reserves, developing ridge-to-reef management to lessen land-based impacts, and strengthening local governance. WCS is currently leading a major research effort around securing the future for the most intact, and resilient, coral reef ecosystems, and we now have helped researchers to identify some of

the most spectacular coral reefs with the greatest chance of surviving climate change, natural disasters and other disturbances.[18] It is critical that the post-2020 conservation agenda include a focus on these resilient coral reef ecosystems, which protect marine biodiversity, provide livelihoods and food security for millions, and, importantly, stand the greatest chance of surviving climate change.

Other ecosystem types: WCS works in many different ecoregions and habitat types, including, for example, large grassland ecosystems in North and South America, Africa and Asia. We also work in coastal and shallow marine habitats which are critical for breeding and feeding cetaceans, sharks, rays, and other globally important taxa, and in coastal upwelling zones – highly productive areas that are critical for global food security. We are expanding our work on intactness into these habitat types to ensure that the critical role of these ecosystem types is recognized and that the most intact areas with the highest degrees of ecosystem function and resilience are clearly delineated and consequently protected from degradation using appropriate measures.

3. Think beyond protected areas to conserve functioning ecosystems.

WCS scientific research and conservation experience has demonstrated that protected areas play a critical role in conserving both species and ecosystems, including highly intact ecosystems, when they are sited and established based on sound science and stakeholder consultation, are large enough to prevent incursion, and are adequately resourced and effectively managed. We encourage the expansion of protected area networks, both marine and terrestrial, as part of the post-2020 framework, however we urge Parties to ensure that any targets related to protected area expansion focus on areas of conservation value for both species and ecosystems, that adequate financial resources be provided for their implementation, and that management effectiveness be monitored. Conservation measures, including protection, should be prioritized for: (i) sites that meet Key Biodiversity Area (KBA) criteria or otherwise possess demonstrated value for biodiversity conservation, including in particular areas that have a high degree of ecosystem intactness or ecological integrity; (ii) sites of importance to indigenous peoples and local communities; (iii) sites that contain important populations of threatened or endangered species; and (iv) sites that are important for other ecological reasons.

Identifying Key Biodiversity Areas

WCS is a member of the Key Biodiversity Areas (KBA) Partnership, and we welcome the role of the KBA Partnership and *Global Standard for the Identification of Key Biodiversity Areas.* The *Global Standard* harmonizes existing approaches and provides a common currency for the identification and safeguarding of sites important for the persistence of biodiversity: threatened biodiversity, geographically-restricted biodiversity, ecological integrity (or ecosystem intactness), biological processes, and irreplaceability in terrestrial, inland water, and marine environments. KBAs, particularly sites that are designated under Criteria A and B of the *Global Standard*, will be critically important to protect areas relied upon by endangered species as one means of preventing extinction – a key goal of the Convention and one that is clearly articulated in Aichi Target 11.

However, the KBA approach has more limited utility when considering the identification of ecosystems with a high degree of intactness or ecological integrity, because the KBA standard criterion (C), which focuses on ecological integrity, only allows two sites to be identified per ecoregion. Ecological connectivity is another essential feature that will not be addressed through KBAs alone. Therefore,

[18] Beyer, H.L. et al. 2018. "Risk-sensitive planning for conserving coral reefs under rapid climate change." *Conservation Letters*. In print.

identification and conservation/management of KBAs is necessary, and we believe the post-2020 framework for biodiversity should set targets for their identification and delineation, and prioritization of their conservation or management, however focusing on KBAs alone will not be sufficient to conserve the nature we need.

Areas outside protected areas

Biodiversity conservation at a global scale will always rely on areas that are not legally protected or managed primarily for biodiversity conservation outcomes. No global goal or target that addresses only the areal extent of protected areas is going to be large enough or sufficient to achieve a global conservation agenda that includes a critical focus on the intactness (and connectivity) of ecosystems. A goal for the increased extent of protected areas should be seen as essential but insufficient on its own. Only a multi-faceted approach that includes, but does not exclusively rely on, increasing protected area coverage of the most important and ecologically intact areas, along with effective management of those areas, can achieve the many different goals of conserving biological diversity and the natural systems of which they are part.

Protected areas are part of broader landscapes and seascapes, which are often a complex matrix that also includes some indigenous or community areas and many other forms of public and private use. Indeed, IUCN Category V or VI protected areas aim to maintain some level of community and human activity in sites that are important for biodiversity, particularly large landscapes. WCS recognizes the value of diverse "conserved" or "managed" spaces, whether they are designated as IUCN Category V or VI protected areas, Other Effective, Area-Based Conservation Measures (OECMs), or something else, and we welcome further discussion by Parties on the integration of these spaces into the broader conservation framework. However, we recognize that the biodiversity conservation outcomes of sites designated as OECMs can be different to those of protected areas that can be assigned to an IUCN category (particularly those with higher levels of protection), and therefore urge Parties to make the distinction in a post-2020 biodiversity framework.

WCS works closely with indigenous peoples, local communities, and many stakeholders across the Americas, Africa, Asia and the Pacific, on the management of areas that may not necessarily become formally (legally) protected areas, but that do contribute significantly to the persistence of biodiversity and sustainable development for communities living in and alongside them. These groups are critical with actors whose wellbeing is tied to intact ecosystems that have management and/or ownership rights over key areas that link protected areas in a broader landscape, provide critical habitat to species in a context of climate change, etc. Research suggests that efforts to engage more systematically with Indigenous Peoples to support their efforts to secure/clarify land and resource rights and exercise them effectively will provide an important contribution to a global effort to secure intact ecosystems.[19]

To secure sufficient biodiversity through a post-2020 framework, there needs to be a recognition that a high proportion of the planet will need to be 'conserved' in some way rather than formally 'protected.' A biodiversity goal that seeks only to increase a percentage of protected area coverage without clear, quantitative criteria for siting protected areas in those landscapes and seascapes that most need it (in different ways), and making sure that they are effectively implemented, would be insufficient. A post-2020 framework for biodiversity must also look both within protected areas and beyond their boundaries to determine whether biodiversity is successfully conserved. The ideas we have presented above on

[19] Garnett, Stephen T. et al. 2018. "A spatial overview of the global importance of Indigenous lands for conservation." *Nature Sustainability,* 1:369–374.

retention of nature and specifically intact ecosystems are critical to enabling the global community to accomplish this.

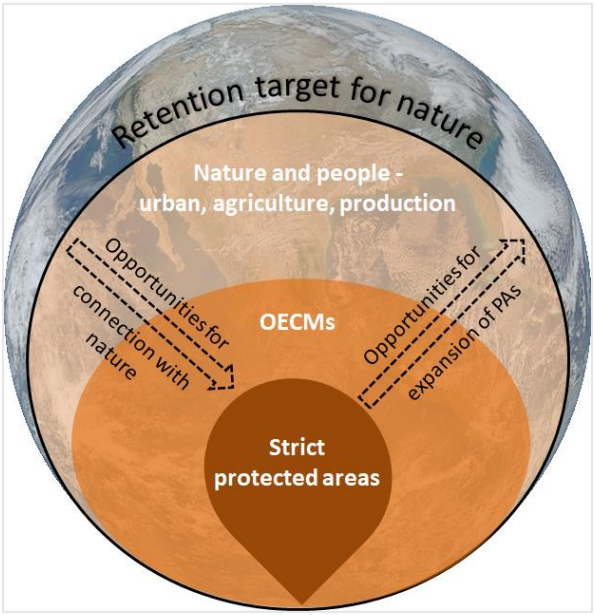

Figure 3. Relationship of protected areas, OECMs and other managed areas within a retention target.