

IUCN WCPA Technical Note Series No. 9 THE GLOBAL BIODIVERSITY FRAMEWORK (GBF): TARGET 3 AND THE TERM “SUSTAINABLE DEVELOPMENT AREAS”: A TECHNICAL BRIEF

Prepared by Stephen Woodley, Dan Laffoley, and Nigel Dudley, IUCN WCPA

KEY MESSAGES

At the Open-Ended Working Group 3 (OEWG) negotiations for the Post 2020 Global Biodiversity Framework (GBF) Convention on Biological Diversity (CBD) in Geneva (March 2022) a new proposal to include “sustainable development areas” was put forward by one Party for inclusion in Target 3 of the GBF. This proposal was to include “sustainable development areas” alongside protected areas and other effective areas-based conservation measures (OECMs). This technical brief reviews the concept of the use of biodiversity and the role of “use” in the GBF targets. Note the terms “sustainable use areas” and “sustainable development areas” are considered to be the same in this brief, both relying on concepts of “use” and its level of sustainability.

- The focus of Target 3 is on area-based conservation of biodiversity as described under the CBD. Large scale, intensive commercial and/or industrial exploitation (in agriculture, fishing, and forestry) even if managed sustainably is not compatible with Target 3 and is already covered under GBF Targets 5, 9 and 10. While some types of sustainable use legitimately occur in protected areas, these are specifically intended at the “least impact” end of the use continuum.
- Whilst the GBF Target 3 calls for protecting at least 30% of both the terrestrial and marine realms by 2030, which many countries are already endorsing, these area-based conservation efforts need to be supplemented and supported by more sustainable management across the remaining 70% of landscapes and seascapes in a Whole Earth approach. All targets are important.
- The potential for the creation of a distinct category of Sustainable Development Areas should be discussed under Target 10, not Target 3 because under the Convention it is a different topic from protected areas and OECMs.

Use, sustainable use, and the CBD

The aim of this brief is to support ongoing GBF negotiations by providing clarity on the general terms of “use” and “sustainable use” in the context of protected areas and OECMs, as defined by the CBD and the International Union for the Conservation of Nature (IUCN). This brief accordingly explores the concept of “sustainable development areas” and, importantly, where such ideas might be appropriately best placed in the Global Biodiversity Framework.

The term “sustainable development” became a major focus of multilateral action with the 1987 publication of Brundtland Report *Our Common Future*. This introduced and defined the overarching idea of sustainable development and devoted a chapter to protecting species and their ecosystems, noting that “the diversity of species is necessary for the normal functioning of ecosystems and the biosphere as a whole.” Protecting species and their ecosystems was declared to be an “indispensable prerequisite” to sustainable development.

Sustainable use is defined by the Convention on Biological Diversity as “the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.” Article 8 (a) of the Convention requires each party, as far as possible and as appropriate, to “establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity.” Article 10 calls for each party to adopt measures relating to the use of biological resources to avoid or minimize adverse impacts on biological diversity. Article 10(c) of the CBD goes on to state that Parties shall: (...) “protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements.”

The mechanisms for delivering this were identified in the CBD’s 2011–2020 Strategic Plan for Biodiversity. Specifically, Aichi Target 11 called for protected areas and OECMs. Target 3 of the GBF is Target 11’s successor and, like it, responds directly to Article 8 (a) of the CBD. Target 3 is one of 22 potential targets for the CBD’s new Post 2020 Global Biodiversity Framework (GBF). Other targets such as Targets 5 and 10 respond to Article 10 of the Convention which addresses overall sustainable use of the components of biological diversity.

Protected areas and OECMs are the intended mechanisms for area-based biodiversity conservation in Target 3. Both concepts have been fully explored and defined under the Convention. Certain kinds of uses, where they occur in protected areas, are meant to be consistent with, and supportive of, the primary purpose of nature conservation. IUCN provides detailed guidance on use in protected areas, which is always meant to be sustainable and low impact (see section 3). For OECMs, their management must result in effective nature conservation at the same level as protected areas (CBD Decision 14/8, see section 4).

Traditional harvest is an important use of many protected areas and OECMs around the world. Conservation works best when it is equitable: based on full participation, with shared and transparent decision-making, rights-based approaches, and fair benefit sharing. The at least 30% minimum target provides a huge opportunity to strengthen security of tenure and support to Indigenous and community led conservation by demonstrating the global environmental values of such management. Governance by Indigenous peoples and local peoples is an important governance type for both protected areas and OECMs, recognized under the CBD and strongly supported by IUCN.

Protected areas and OECMS under Article 8 of the CBD are a distinct subset of land and sea use (currently proposed in Target 3 to cover at least 30% of land, sea, and freshwater by 2030) where “special measures are taken to conserve biological diversity.” While their focus is conservation, they allow uses consistent with their primary purposes, but not generalized “sustainable use” or “sustainable development.” This is made clear by Convention Article 8 (c). It provides that each party shall promote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas. Put another way, sustainable development and sustainable use goes on outside protected areas and OECMS—in the wider landscape and seascape.

Challenges of applying the term “sustainable use”

One of the challenges of using and applying the term “use” is that it occurs on a continuum (Figure 1). At the low end of the continuum is non-extractive uses such as tourism, use of sacred natural sites, etc., and low impact take or harvest of wild species for such things as traditional medicines, fuel, or food. The expectation and norms for such activities are that they are undertaken in a manner that has inter-generational sustainability and stability, so that current use does not impact potential future use. Increasing rates of harvest or use can be sustainable up to industrial levels of harvest that seek to take the maximum possible without compromising the ability to do it repeatedly. These higher levels of use are given such terms of maximum sustainable yield fisheries, sustainable forestry, etc. Beyond maximum use levels is overharvest, which has long-term ecological impacts and is outside context of the CBD.

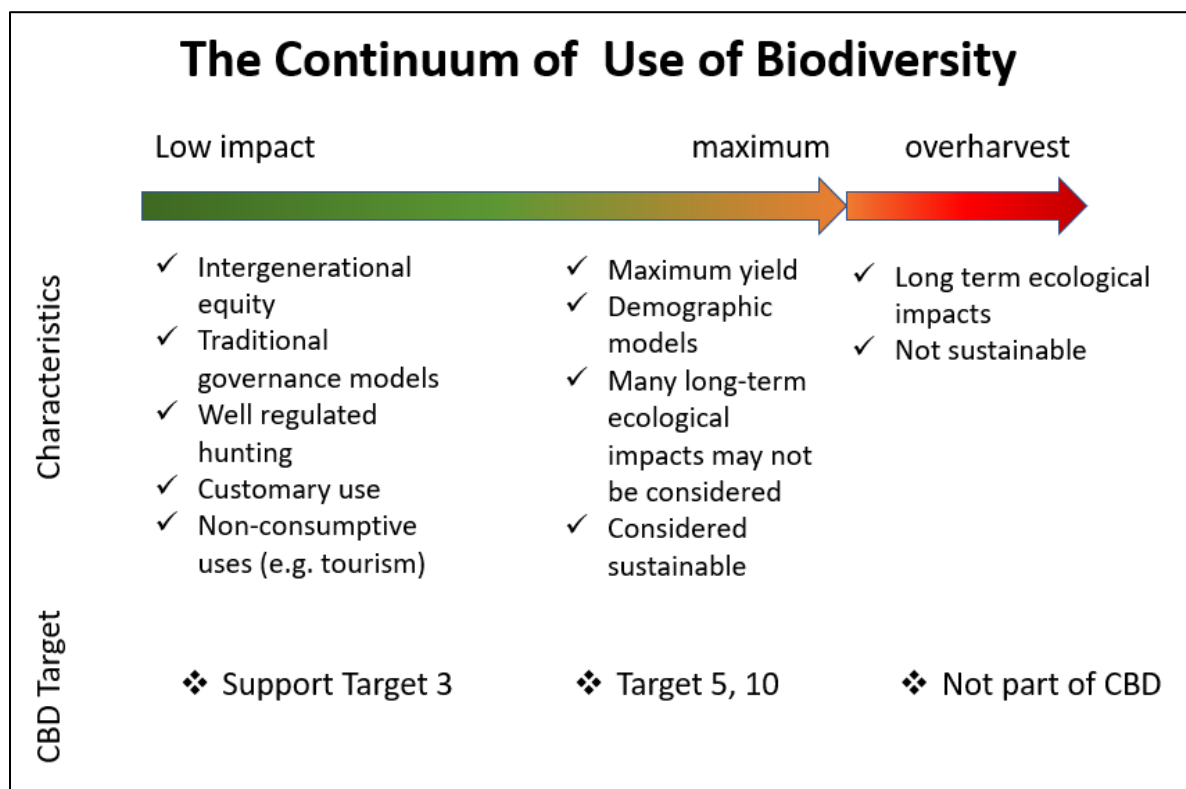


Figure 1. The Continuum of Sustainable Use and its relationship to the targets under the Global Biodiversity Framework

Use can impact a population's demographics (e.g., birth and death rate), a population's genetic diversity (e.g., by selecting only part of the gene pool), or even have ecosystem level impacts (e.g., removal of predators or keystone species). The question of whether any particular use is sustainable is complex. Many determinations of sustainable use are based on demographic population models, calculating use rates against replacement rates. However, there is abundant evidence that species and ecosystems can be impacted by even relatively low levels of use, even those often classed as sustainable. Thus, low levels of use do not always imply low impacts. Impacts are dependent on several factors including the harvested species' breeding strategy, lifespan and age to reproductive ability, its place on the food web and which individuals in a population are harvested.

Some uses that occur at low levels and are thus often considered sustainable can also have ecological impacts. For example, the selective harvest of predatory fish, even at low levels, can change the structure of the ecosystem (Estes et al., 2011). Trophy hunting of large male wild sheep may be sustainable demographically but can affect the genetic composition of the species (Coltman et al., 2003, Festa-Bianchet and Lee, 2009). Bushmeat harvest in the Central African Republic, which many be considered sustainable has impacts on trophic systems (Abernethy et al., 2013). Forest harvest done under sustainability models changes the relative abundance of bird populations (Betts et al., 2021). All these are examples of impacts that may occur under sustainable management approaches, even at moderate levels of use.

Understanding the level of impact of use requires a detailed understanding of natural systems. Many, or even most, populations that are harvested under the goal of maximizing harvest/use, lack the required ecological understanding of cause and effect to be sure to avoid overharvest. Ensuring that the use of a species is sustainable requires an understanding of the species population dynamics, the species role in the ecosystem and the potential impact on the species genetic diversity.

Overharvest, or over-exploitation, has measurable impacts on wild species and compromises the ability of ongoing use (Figure 1). Overharvest is very common around the world and clearly outside the notion of sustainable use because it is ecologically damaging. Currently an enormous problem globally, overharvesting impacts generational stability, because the ability of future generations is compromised. There are many examples of overharvest with significant ecological impacts. For those fully assessed taxonomic groups, where extinction risk has been evaluated by the IUCN Red List of Threatened Species, unsustainable harvest is now the most prevalent threat affecting threatened marine species (IUCN, 2016) and is the second most prevalent for terrestrial and freshwater species (Maxwell et al., 2016). While many species are harvested sustainably, one third of commercial wild fish stocks are currently being overfished (FAO, 2016). Marsh et al. (2022) examined IUCN Red Listed species and found only about a third of species were harvested sustainably.

Ensuring that use is truly sustainable is also challenging because the principles of sustainability are often economically overridden and/or politically ignored. Thus, use in protected areas should occur at the lowest end of the use continuum, and certainly always be sustainable, consistent with their role of making nature conservation the priority. Similarly, OECMs, by definition, must be under a management regime that is demonstrating significant sustained conservation outcomes for biodiversity, which implies strong evidence that any use is both sustainable for the species, group or ecosystem involved, and does not have significant ecological repercussions.

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services assessment report (IPBES 2022) reminds that "use of wild species directly contributes to the well-being of billions of people globally on a day-to-day basis and is particularly important to people in vulnerable situations". Wild species are any species that have not been domesticated through multi-generational selection for specific traits, and which can survive independently of human intervention that may occur in any

environment. This does not imply a complete absence of human management and recognizes various intermediate states between wild and domesticated.

IUCN's Protected Area Categories and Use

For protected areas, IUCN has identified six management categories that reflect varying kinds of uses that are compatible with the primary goal of nature conservation in accordance with Article 8. For example: Category 1a wilderness often includes hunting, mainly by Indigenous peoples; Category 2 often includes tourism; Category V protected areas are meant to support biodiversity that occurs only as a result of a long-established human and-use patterns (such as rare plants and grassland birds found on extensive grasslands); and Category VI permits certain types of community-based sustainable harvest of wild resources (for example this supports traditional Indigenous and local community harvest, of such things as Brazil nuts and artisanal fishing) (see Dudley et al. 2008 for details).

The two key points of principle here that must be met are:

- Uses inside protected areas are compatible, and not in conflict, with the overarching priority of nature conservation. This is not therefore a mandate for general uses but only those uses that are known to be compatible with specific protected area objectives.
- Such uses, often long-established, are meant to be undertaken in an appropriate level that demonstrably shows intergenerational sustainability and stability — such that use today can be the same use undertaken in a generation's time with no loss of conservation values, population levels and ecosystem services.

Protected areas as intended under the new Target 3, as with the preceding Aichi Target 11, allow for a gradation of such compatible uses from full protection to certain types of harvest at the decision of the country conservation authorities. Limited kinds of use, in many cases related to the customary use and the rights and tenure of Indigenous Peoples and Local Communities (IPLCs), are recognized to occur in some IUCN protected area categories and under OECM guidance.

IUCN policy and guidance have set this out clearly (Dudley et al., 2008). For example, in marine protected areas (Day et al., 2019) there is an acknowledgement that compatible uses of low harvest often accord with managed customary use and rights. Even though there is a gradation to more acceptance of use, in say Category IV to VI, there are clear limitations on what type of use can exhibit intergenerational sustainability and stability (Annex 1).

Sustainable use in protected areas thus falls into two main categories:

- **Compatible uses:** Some practices have such a small impact on ecosystems that they are compatible with conservation. This can include ecotourism (Leung et al. 2018), low-level pastoralism (Stolton et al., 2019) where livestock replace a proportion of natural grazers, collection of food, medicines and fodder (Thapa Karpis, 2013), or rubber tapping. This last was one of the drivers behind the concept of extractive reserves, IUCN category VI.

- **Necessary uses:** Some uses are needed for conservation management (Dudley et al. 2016). In long-settled areas modified ecosystems have developed, often over millennia, which are rich in biodiversity. In Europe, heath, low moorland, limestone grassland, coppice woodland and meadows developed their current form after centuries of human settlement and have associated, adapted plant and animal communities (Rackham, 1980). Left alone, most revert to forest and lose local populations, so some management is necessary in these sites. Further, many cultural landscapes are no longer commercially viable, and are found largely in protected or conserved areas, surviving due to top-up funding to maintain biodiversity and traditional cultures.

In practice, many larger protected areas (especially category V) have what might be called “tolerated uses”, often in place before the protected area was established, in particular some forestry and agriculture. These are not viewed as ideal but continue to exist under application of the 75% rule, which states that at least 75% of a protected area must be managed for its primary purpose, often with long-term plans for replacement with more sustainable uses. There are, of course, also often illegal uses, which may or may not be sustainable, but should not occur.

In addition, IUCN policy calls on governments to prohibit environmentally damaging industrial activities and infrastructure development in all IUCN categories of protected area, and to take measures to ensure that all activities are compatible with the conservation objectives of these areas, through appropriate, transparent and rigorous pre-emptive appraisal processes, such as international best practice environmental and social impact assessments, strategic environmental assessments, and appropriate regulation.

OECS and Sustainable Use

OECS differ in origin and objectives to protected areas, and whilst the journey to delivering effective conservation may differ, the end results of sustaining conservation values remain the same (CBD Decision 14/8, IUCN-WCPA Task Force on OECS, 2019). OECS are recognised for land and water management that has a positive effect on nature and achieves equivalent outcomes to protected areas. Traditional harvest is a critical part of many protected areas and OECS around the world. It is well established that Indigenous and community-governed territories often effectively retain their biodiversity conservation values (Schuster et al., 2020). It is also clear that protecting at least 30% of the earth, part of Target 3, will not occur without the leadership, support and partnership of Indigenous Peoples. Indigenous or local communities may have long-established patterns of low-level use and management practices that have effectively conserved biodiversity for the long term and can, if the custodians agree, be recognised as OECS. Further, many Indigenous peoples and local communities have chosen to declare their own territories as Indigenous and Community Conserved Areas (ICCAs), some of which are recognised protected areas or OECS and which continue to protect and promote customary management practices. For example, a large military base may secure important natural values that are retained while the site is still dedicated to its primary training purpose.

Where should sustainable use feature in the GBF?

The focus of Target 3 is on area-based conservation of biodiversity as described under the CBD. Sustainable development areas, such as forestry, fisheries, and agriculture are covered under Target 10. Thus “sustainable development areas” should not appear in the wording of Target 3 as an additional category, alongside protected areas and OECMs. While some types of sustainable use legitimately occur in protected areas, these are at one end of the use continuum illustrated in Figure 1. It would therefore be inappropriate to include the phrase “sustainable development areas” as a separate element of Target 3 as it could open the world’s protected areas and OECMs to a wide range of potentially damaging activities.

Large scale, intensive commercial and/or industrial exploitation (in agriculture, fishing, and forestry) even if managed sustainably is not compatible with Target 3 and is covered under GBF Target 10. The potential for the creation of a distinct category of sustainable development areas should be discussed under Target 10, not Target 3 because under the Convention, it is a different topic from protected areas and OECMs.

Whilst the Post-2020 Global Biodiversity Framework calls for protecting at least 30% of both the terrestrial and marine realms by 2030, which many countries are already endorsing, these area-based conservation efforts need to be supplemented and supported by more sustainable management across the remaining 70% of landscapes and seascapes in a Whole Earth approach.

Conclusion

At OWEG 3 negotiations for the Post 2020 Global Biodiversity Framework (GBF) Convention on Biological Diversity (CBD) in Geneva (March 2022) a new idea of including “sustainable development areas” was proposed for inclusion in Target 3 of the GBF. This note concludes that the concept of "sustainable development areas" is not appropriate in Target 3 and, importantly, where such ideas would be appropriately placed in the Global Biodiversity Framework.

Target 3 should only include protected and conserved areas (OECMs) and no other area-based units. “Sustainable development areas” should not be included in Target 3. They are the domain of other targets, specifically Target 10, which are managed to optimize harvest (including rotation forestry, crop agriculture). The issue is therefore not why sustainable development should be included in Target 3, but rather why it is not being better included and applied in other more relevant targets.

This IUCN WCPA Technical Note should be cited as: Woodley, S., Laffoley, D., and Dudley, N. 2022. The Global Biodiversity Framework (GBF): Target 3 and the Term “Sustainable Development Areas”: A Technical Brief. Technical Note Series No. 9. Gland, Switzerland: IUCN WCPA. 11pp.

Acknowledgements:

We are grateful for useful comments and suggestions from Paula Bueno, Erinn Drage, Maria Kalaria, Shane Mahoney, John Robinson, Dilys Roe, Helen Tugendhat, and John Waithaka.

References

Abernethy, K.A., Coad, L., Taylor, G., Lee, M.E. and Maisels, F., 2013. Extent and ecological consequences of hunting in Central African rainforests in the twenty-first century. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 368(1625), p.20120303.

Coltman, D.W., O'Donoghue, P., Jorgenson, J.T., Hogg, J.T., Strobeck, C. and Festa-Bianchet, M., 2003. Undesirable evolutionary consequences of trophy hunting. *Nature*, 426(6967), pp.655-658.

Convention on Biological Diversity. 2018. CBD Decision 14/8: Protected areas and other effective area-based conservation measures. Conference of the Parties 14th meeting, Sharm El-Sheikh, Egypt, 17–29 November. <https://www.cbd.int/doc/decisions/cop-14/cop-14-dec-08-en.pdf>

Day, J., Dudley, N., Hockings, M., Holmes, G., Laffoley, D., Stolton, S., Wells, S. and Wenzel, L. (eds.) (2019). Guidelines for applying the IUCN protected area management categories to marine protected areas. Second edition. Gland, Switzerland: IUCN.

Dudley, N. (Editor) (2008). Guidelines for Applying Protected Area Management Categories. Gland, Switzerland: IUCN. x + 86pp. WITH Stolton, S., P. Shadie and N. Dudley (2013). IUCN WCPA Best Practice Guidance on Recognising Protected Areas and Assigning Management Categories and Governance Types, Best Practice Protected Area Guidelines Series No. 21, Gland, Switzerland: IUCN. xxpp.

Dudley, N., Phillips, A., Amend, T., Brown, J. and Stolton, S. 2016. Evidence for biodiversity conservation in protected landscapes. *Land* 5: 38: DOI 10.3390/land5040038

Estes, J.A., Terborgh, J., Brashares, J.S., Power, M.E., Berger, J., Bond, W.J., Carpenter, S.R., Essington, T.E., Holt, R.D., Jackson, J.B. and Marquis, R.J., 2011. Trophic downgrading of planet Earth. *science*, 333(6040), pp.301-306.

Festa-Bianchet, M. and Lee, R., 2009. Guns, sheep and genes: when and why trophy hunting may be a selective pressure. *Recreational hunting, conservation and rural livelihoods: science and practice*, pp.94-107.

IPBES (2022): Thematic assessment of the sustainable use of wild species of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. J.-M. Fromentin, M.R. Emery, J. Donaldson, M.-C. Danner, A. Hallosserie, D. Kieling (eds.). IPBES secretariat, Bonn, Germany. XX pages. <https://doi.org/10.5281/zenodo.6448567>

IUCN, 2016. The IUCN Red List of Threatened Species.

IUCN-WCPA Task Force on OECMs, (2019). Recognising and reporting other effective area-based conservation measures. Gland, Switzerland: IUCN. ISBN: 978-2-8317-2025-8 (PDF) DOI: <https://doi.org/10.2305/IUCN.CH.2019.PATRS.3.en>

Leung, Y.F., Spenceley, A., Hvenegaard, G., and Buckley, R. (eds.) 2018. Tourism and visitor management in protected areas: Guidelines for sustainability. Best Practice Protected Area Guidelines Series No. 27. IUCN, Gland, Switzerland.

Marsh, S.M., Hoffmann, M., Burgess, N.D., Brooks, T.M., Challender, D.W., Cremona, P.J., Hilton-Taylor, C., de Micheaux, F.L., Lichtenstein, G., Roe, D. and Böhm, M., 2022. Prevalence of sustainable and unsustainable use of wild species inferred from the IUCN Red List of Threatened Species. *Conservation Biology*, 36(2), p.e13844.

Maxwell, S.L., Fuller, R.A., Brooks, T.M. and Watson, J.E., 2016. Biodiversity: The ravages of guns, nets and bulldozers. *Nature*, 536(7615), pp.143-145. S. L. Maxwell, R. A. Fuller, T. M. Brooks, J. E. M. Watson, Biodiversity: The ravages of guns, nets and bulldozers. *Nature* 536, 143–145 (2016).

Naidoo, R., D. Gerkey, D. Hole, A. Pfaff, A.M. Ellis, C.D. Golden, D. Herrera, K. Johnson, M. Mulligan, T.H. Ricketts, and B. Fisher. 2019. Evaluating the impacts of protected areas on human well-being across the developing world. *Science Advances* 5(4): eaav3006. <https://doi.org/10.1126/sciadv.aav3006>

Schuster, R., R.R. Germain, J.R. Bennett, N.J. Reo, and P. Arcese. 2019. Vertebrate biodiversity on Indigenous—managed lands in Australia, Brazil, and Canada equals that in protected areas. *Environmental Science and Policy* 101: 1–6. <https://doi.org/10.1016/j.envsci.2019.07.002>

Stolton, S., Dudley, N. and Zogib, L. 2019. Mobile Pastoralism and World Heritage. *DiversEarth*, Switzerland.

Tauli-Corpuz, V., J. Alcorn, A. Molnar, C. Healy, and E. Barrow. 2020. Cornered by PAs: Adopting rights-based approaches to enable cost-effective conservation and climate action. *World Development* 130: 104923. <https://doi.org/10.1016/j.worlddev.2020.104923>

Thapa Karki, S. 2013. Do protected areas and conservation incentives contribute to sustainable livelihoods? A case study of Bardia National Park, Nepal. *Journal of Environmental Management* 128: 988–999.

Annex 1. Extract from Day et al., 2019.

Table 6: Compatibility of fishing/collecting activities in different management categories

IUCN category	Local fishing/ collecting	Recreational fishing/ collecting	Traditional fishing/ collecting	Industrial-scale fishing	Collection for research
Ia	No	No	No	No	No*
Ib	No	No	Yes**	No	Yes
II	No	No	Yes**	No	Yes
III	No	No	Yes**	No	Yes
IV	Variable#	Variable#	Yes	No	Yes
V	Yes#	Yes	Yes	No	Yes
VI	Yes#	Yes	Yes	No	Yes

Key:

*	any extractive use of category Ia MPAs should be prohibited with possible exceptions for scientific research which cannot be done anywhere else.
**	in category Ib MPAs traditional fishing/collecting should be limited to an agreed sustainable quota for traditional, ceremonial or subsistence purposes, but not for purposes of commercial sale or trade.
#	whether fishing or collecting is or is not permitted will depend on the specific objectives of the MPA.