Resolution 50 - supporting information

The purpose of this short paper is to explain the context to and justification for the 'at least 30%' MPA target enshrined in Resolution 50, agreed at the 2016 World Conservation Congress in Hawaii.

1. Overall background to MPA targets

There has been a long history of targets associated with ocean protection using MPAs. The long-running political 10% MPA target involving any type of MPA, has its origins in the 3rd World Parks Congress held in Bali in 1983. It was a grand ambition back then to scale up protection from around 4% to 10%, and it was incidentally at the same Congress that IUCN adopted the term protected area instead of parks.

The political world has stuck with the 10% target (using any type of MPA) since then, even though our major concerns with ocean health and existential threats to our survival have all arisen since 2000 (Figure 1). Awareness of the declining state of the ocean post 2000 led to a divergence between the political world and the global conservation community, who have since then called for increasingly larger amounts of the ocean to be afforded high levels/strict protection.

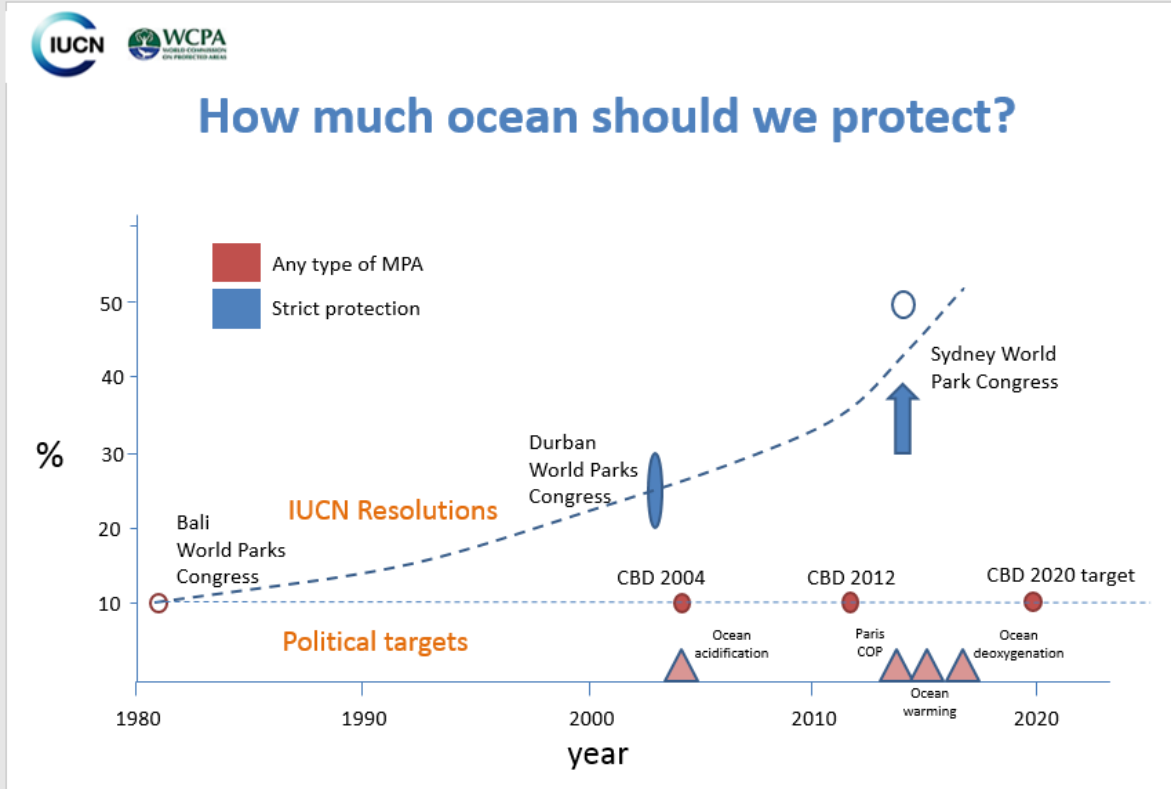

Figure 1. The evolution of targets for MPA protection of the ocean, and divergence in political and civil society views since 2000. The blue upward arrow for the Sydney World Park congress is to signify 'at least 30%', while the open blue circle above represents 'nature needs half' ideas which emerged at that event. First emergence of significant global ocean threats and awareness is shown on the horizontal axis. Laffoley, unpublished, 2019.

2. History of MPA marine targets in IUCN leading up to the 'at least 30%'

The first significant divergence by the global community away from the 10% target happened at the 5th World Parks Congress held in Durban, South Africa in September 2003. The Congress marked a paradigm shift from parks as 'islands of conservation' to parks and protected areas providing benefits 'beyond boundaries', while also ensuring that such areas continue to serve as the best means globally to contribute to the conservation and sustainable use of biodiversity.

The Durban Congress proved a significant opportunity to move the marine conservation agenda forward[i]. Whilst only two of the 33 recommendations focused on marine protected areas (MPAs), they were major milestones in re-setting the overall direction and levels of ambition needed for protecting our ocean. One recommendation focussed on pushing for action for MPAs on the high seas, and the other (Recommendation 5.22) included new targets scaling-up ocean protection. The latter called on the international community to establish a global system of representative networks of marine and coastal protected areas, including strictly protected areas amounting to 20–30% of each habitat, by 2012. These networks should be effectively managed, consistent with international law and based on scientific information. Further, an ecosystem-based approach to sustainable fisheries management and marine biodiversity conservation was also recommended. This recommendation was specifically formulated to build upon, strengthen and consolidate the target adopted at the World Summit on Sustainable Development (WSSD) in 2002 to develop representative networks of MPAs by 2012.

The 20 – 30% target was based on published information of the day (for example Gell & Roberts 2003[ii]) analysing the amount of ocean experts stated was needed in highly protected marine reserves to properly protect and manage marine biodiversity.

3. Justification of 'at least 30%' statement in Resolution 50.

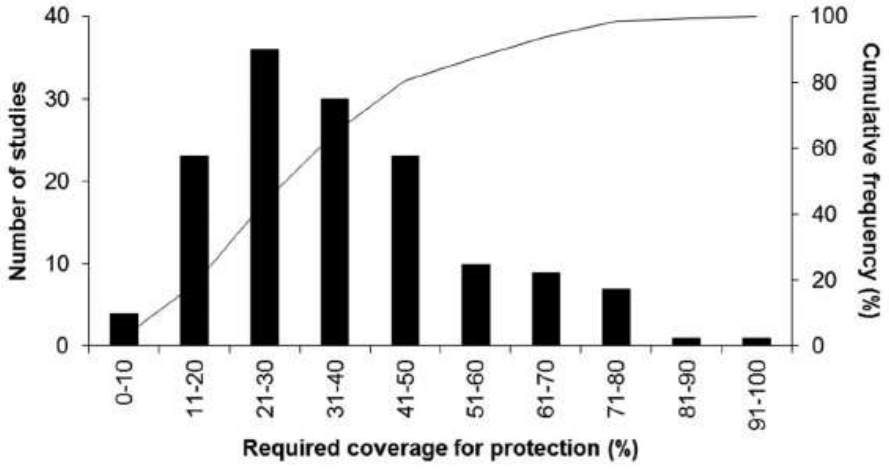

Figure 2. Frequency distribution of the required coverage of protection to meet MPA objectives based on 144 studies. Cumulative frequency (solid line) showing the percentage of studies that consider MPA goals will be met at each coverage level (from O'Learly et al, 2016).

Ten years after Durban, the World Parks Congress was again held, this time in Sydney, Australia. By then there was a significant awareness of the need to dramatically scale up action to protect biodiversity, both in the sea and on the land, set against increasingly well documented losses. Again, metadata analysis was used involving some 144 separate published studies to underpin the wording

of the MPA target that ended-up being agreed through the Promise of Sydney process. There are a some highly influential papers that can be cited from that time and since then, but the key up-to-date rigorous peer reviewed analysis underpinning resolution 50 is provided by O'Leary et al, 2016[iii]. By contrast, the quantitative elements of Aichi Target 11 (17% for terrestrial protected areas and 10% for marine areas) have no basis in science[iv] [v].

The analysis by O'Leary et al. concluded that while achieving 10% coverage by 2020 is extremely ambitious politically, that target should only be considered a way point to greater protection. They considered that even the more ambitious target of at least 30% protection stemming from Sydney World Parks Congress may not be enough to meet all of the multiple objectives expected of MPA networks (e.g., Angulo-Valdes & Hatcher 2010[vi]), particularly if surrounding areas are not subject to good management (e.g., Micheli et al. 2004[vii]; Rodwell & Roberts 2004[viii]; White et al. 2010[ix]). The details of the analysis in the paper (Figure 3) provides further evidence for the accurate justification for and positioning of the current IUCN MPA target, and this analysis was a key consideration in the precise wording used in the Promise of Sydney and subsequently in resolution 50.

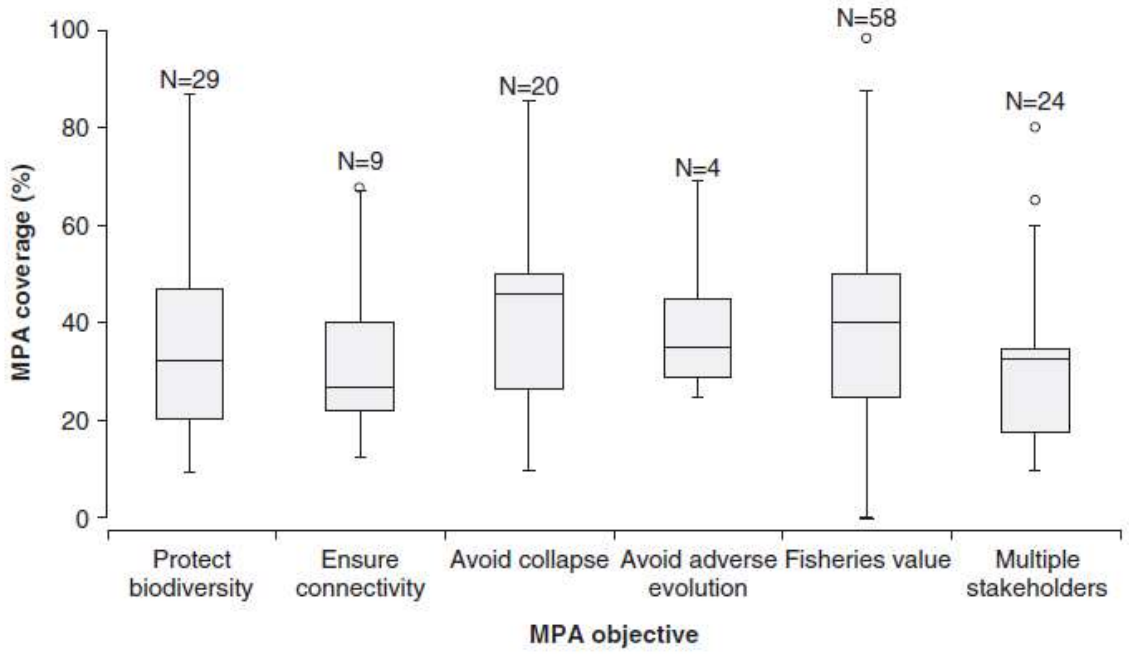

Figure 3. Tukey boxplot showing the range of required coverage for each MPA objective: (1) protect biodiversity (N=29, median 32%, range 9 – 80%); (2) ensure population connectivity (N=9, median 27%, range 13 -68%); (3) minimize the risk of fisheries population collapse and ensure population persistence (N= 20, median 46%, range 10 – 76%); (4) mitigate the evolutionary effect of selective fishing (N=4, median 35%, range 25 – 59%); (5) maximise or optimize fisheries values or yield (N=58, median 40%, range 0 – 98%); and (6) satisfy multiple stakeholders (N=24, median 33%, range 10 – 80%. Outliers shown by open circles (from O'Leary et al, 2016).

Resolution 50 came into being at the 2016 Hawaii World Conservation Congress with significant support from countries (89% in favour), NGOs and indigenous members (94% in favour).

4. Why the precise wording of resolution 50 is critical?

The full wording of Resolution 50 can be found at:

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

The **precise** 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%'**. This wording was used 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%. In addition, the door should be left open for countries to protect more anyway. Thus the 30% is the minimum recommended amount, and indeed in some circumstances (e.g rare, threatened, fragile, vulnerable habitats) considerably more may be needed, as those left unprotected are likely to be degraded or destroyed. IUCN and others have a habit of shortening all this to a simply 'a 30% target' which is misleading, inaccurate, wrong and needs to be avoided.

The 'at least 30% target' is also linked to two further sets of words – 'high levels or protection' and 'of each habitat type'. The former is to make it clear that benefits with MPAs directly link to the level or protection – peer reviewed literature time and time again demonstrates that high levels of protection afford greater arrays of benefits (Sala et al. 2018)[x]. 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 and therefore disruption. 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.

5. The 'at least 30%' and the future

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[xi].

Finally, it is worth noting that in addition to this short paper a fuller explanation of the science behind the 'at least 30%' is being funded by the Blue Marine Foundation, with work undertaken by Professor Callum Roberts. That report will be prepared over the coming months.

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5th July 2019

Where quoted this document should be referred to as:

Laffoley, D. 2019 (unpublished). Resolution 50 - supporting information. A short paper is to explain the context to and justification for the 'at least 30%' MPA target enshrined in Resolution 50, agreed at the 2016 World Conservation Congress in Hawaii. World Commission on Protected Areas, IUCN, Gland, Switzerland. 5pp.

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