

Coastal and Marine Spatial Planning

Protecting Marine Spaces: Global Targets and Changing Approaches

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INTRODUCTION

Threats to the marine environment are complex, multiple, and often overlapping or synergistic.¹ Mitigating these threats, likewise, is not simple, but rather relies on

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1. B.S. Halpern et al., "A global map of human impact on marine ecosystems," *Science* 319 (2008): 948–952; C.D.G. Harley et al., "The impacts of climate change in coastal marine systems," *Ecology Letters* 9 (2006): 228–241.

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multiple management approaches, ranging from controls on fishing, sand and gravel extraction, energy development, shipping, and waste water disposal, to active interventions such as restoration and re-stocking, through to managing *ex situ* threats by managing human activities in adjacent watersheds. Among this array of approaches, one of the key tools for conservation has been marine protected areas (MPAs).

Initially, calls for MPAs were highly targeted, with conservation-based non-governmental organizations (NGOs) driving attention towards conserving critical habitats for endangered and charismatic species such as turtles and marine mammals, and to high-profile habitats such as coral reefs, intertidal wetlands and rocky shores. In most cases, the primary focus was on preserving the healthiest and most diverse ecosystems.²

World-wide efforts at marine conservation were given a clearer framework within the formulation of the Convention on Biological Diversity (CBD).³ This Convention called for a broad ecosystem approach to conservation, and while protected areas were described as one important means to achieve conservation gains, they were not intended to be the sole mechanism. Subsequent efforts used protected areas as both a target and a metric for assessing conservation progress. Given the lack of any other reliable global metrics,⁴ this may have led to an over-reliance on MPA assessments as an indicator of progress in marine conservation.

The most recent review and renewal of global biodiversity conservation commitments came in Nagoya with the formulation of the Aichi Targets.⁵ As with earlier targets these once again stress the need for a broad array of conservation efforts, taking an ecosystem-based approach. Protected areas are again mentioned as a *part* of the solution. The Aichi Targets also greatly strengthen the emphasis on the broader benefits of biodiversity to people. While biodiversity *per se* remains important, the Aichi Targets expressly added the need to reconcile conservation and development, and conserve ecosystem service benefits for human well-being.

This article provides a broad overview of the development of international commitments with regard to marine biodiversity conservation, giving a particular focus on MPA-related targets. The work falls into four main sections beginning with a summary of the international policy and legal frameworks that have encouraged the protection and management of living marine resources. Section II provides a review of global MPAs, considering political and biogeographic patterns in coverage. Section III takes a detailed look at the Aichi Targets for protected areas coverage, and

2. J. Roff and M. Zacharias, "Approaches to Marine Conservation," in *Marine Conservation Ecology* (London: Earthscan Ltd., 2011), pp. 73–99.

3. Convention on Biological Diversity, entered into force 29 December 1993. 1760 *United Nations Treaty Series* 79; 31 *International Legal Materials* 818 (1992), available online: <<http://www.cbd.int/convention/text/>>.

4. S.H.M. Butchart et al., "Global Biodiversity: Indicators of Recent Declines," *Science* 328, no. 5982 (2010): 1164–1168.

5. CBD "COP 10 – Tenth Meeting of the Conference of the Parties to the Convention on Biological Diversity. Nagoya, Japan 18–29 October 2010. Decision X/2. Strategic Plan for Biodiversity 2011–2020," (United Nations Environment Programme, 2010).