

Protective stance: As President Obama announces the largest ever Marine Protected Area, we consider the knotty definitions of words and mountains of documents intended to protect our seas and oceans

Words: Bob Carling

Millions make their living from the sea, from individual local fishermen to large corporations. There is legitimate pressure to earn a living out of from natural resources such as fish, shellfish, seaweed, etc, despite warnings about the impact of human activity on the ecosystems that support life below the waves.

However, the two are not necessarily in conflict. Protecting large stretches of the ocean from human activity may not only be good for conservation but would also benefit fishermen and other stakeholders. But as the world becomes conversant with what the United Nation's Sustainable Development Goals (SDGs) actually mean, terms such as 'protection', 'conservation', 'biodiversity', 'sustainable', 'safeguard', can become politically charged. Their definition and use in public policy arguments and documents can affect the way in which policies are shaped, which, in turn, can have major consequences on the future of our seas.

Ambiguous words

"The gist of current biodiversity-based notions of conservation," argues Freya Matthews, an

environmental philosopher, "is that abundance implies surplus to environmental requirements". The threat of a particular species disappearing can thus become the only motivation for conservation, such that 'abundance', 'wildness' and 'intrinsic worth' become marginalised.

Others argue that ambiguity and lack of consensus among policy and decision makers are having disastrous consequences for the management of the ecosystems that sustain life. Biologist Stuart Pimm, says: "There's a lot of discussion about 'tipping points' — the idea

582,578mi²

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that there are boundaries beyond which, if we push nature it will collapse." Although he agrees that there may be places where this does happen, he points out that "there is no compelling argument that it must always". Moreover, he says that, "if politicians think there are tipping points and the world hasn't collapsed thus far, then it encourages policies that continue to degrade our world. If there isn't a catastrophe so far, why worry? The more likely alternative is not a sudden change, but a progressive loss of fisheries, croplands, damage to all our natural worlds."

Making sense of evidence

In all of this, good quality scientific evidence fuelling policy is crucial, for example the call from the Pew Charitable Trusts to protect Pacific Bluefin Tuna. Recently, leading seafood suppliers and fishing companies have agreed a deal where expanding cod fishing into waters around Svalbard, Norway, has been precluded. But such evidence-based policy is often threatened. Roy Palmer, executive director of the Association of International Seafood Professionals, gives an example of the dangers of making political decisions without a sound scientific basis, something that has happened twice in Melbourne, Australia.

The first time was in the 1990s when the government closed Melbourne's Port Phillip Bay's prosperous scallop fishery. Palmer maintains "there was no science to back this." Then, he adds, in March 2016, based solely on political decisions, the bay was closed to commercial fishing, destroying 42 small businesses previously harvesting about 650 tons of fresh fish annually. This decision was taken even though these businesses "ticked all the boxes of the government's Environmental Protection and Biosecurity Conservation Act".

Large mammal protection

Efforts to control the use of powerful low frequency sonar by the US Navy, arguably the cause of major disruption of large marine mammal lives, was recently enhanced. On 15 July 2016, a legal ruling in San Francisco stopped the US Navy from using its powerful submarine-hunting sonar in peace time. Michael Jasny, director of the Natural Resources Defense Council's Marine Mammal Protection Project, Land & Wildlife Program says that "Even if you can spot that whale, it does nothing about a pollutant that travels as far as sound... NOAA's approach is like saying you fixed air pollution by putting a fence around a smokestack." This won't be the end of the matter – NOAA's National Marine Fisheries Service and the US Navy are reviewing the ruling.

Marine Protected Areas

So, beyond specific regulations concerning particular animals, globally what protection of deep waters and coastal areas is in place and how effective are they? It's a big question. This is where the concept of Marine Protected Areas (MPAs) comes in: 'no-take zones', Special Areas of Conservation (SAC), Special Protection Areas (SPAs), Natura 2000 sites, Particularly Sensitive Sea Areas (PSSAs), Marine Conservation Zones (MCZs) and so on. In his final few months in office, US President Barack Obama has expanded the "Marine National Monument" – an area of protected land and sea of his native Hawaii – from 139,800 square miles of land and sea to 582,578 square miles in the Northwestern Hawaiian Islands. According to The Washington Post, this makes it the largest protected place on the planet. It includes the planet's largest seabird gathering site, with more than 14 million birds from 22 species. It is also home to Laysan albatrosses and the last few Hawaiian monk seals, which are an endangered species.

Several other countries have also declared massive swathes of the ocean as MPAs. In September 2015, New Zealand proposed extending the existing protected area around the South Pacific Kermadec Islands to about 620,000km². And in October 2015, Chile declared an MPA around Easter Island of 631,000km². The UK announced an MPA around the Pitcairn Islands in the southern Pacific Ocean. At 834,000km² it is almost

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three-and-a-half times larger than the landmass of the United Kingdom, and larger than the state of California.

However, overall MPAs constitute only 4% of the world's oceans and only about 0.1% of the MPAs give total protection, i.e. 'no-take zones'. Compare this with terrestrial protected areas, which cover about 15% of the earth's land. The target for MPAs, recommended at the 2012 Rio+20 Earth Summit, is at least 10% of the oceans by 2020.

In January 2016, the UK government announced Ascension Island MPA: with plans to restrict commercial fishing to an outer zone to the north of the island. Although, as Matt Ridley pointed out in The Times, since the big-eye tuna and merlin that swim past Ascension are ocean nomads spending much of the time on the unprotected high seas, there is still a question mark over how effective a protection zone will be.

Post-Brexit change

It is yet to be determined whether the legislation that underpins MPAs will be retained as part of post-Brexit negotiations. While existing national and international regulations for protecting wildlife and biodiversity should – in theory at least – remain unchanged, these negotiations may influence future designations and management practices.

However, the ecological consultancy Thomson

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Ecology points out that "all of the EU directives which relate to wildlife protection ... have been transposed into UK law and it would require new acts of parliament to repeal them." Moreover, some protection for biodiversity transcends the European Union, notably the Ramsar Convention and the Convention on Biodiversity, to which the UK is a signatory. This means the UK is international committed to working towards halting the loss of biodiversity, regardless of its status within the EU.

The role of IUCN

In 2013, the International Union of Conservation set up the Marine Mammal Protected Area Task Force (MMPATF) to identify important marine mammal habitats. Its mission statement is, "to accelerate action and to bridge the gap between social and natural scientists as well as between planners and practitioners."

Dr Natalie Sanders, who is senior marine ecologist at the UK's NatureBureau, believes that the creation of the MMPATF represents "an important step in the development of MPAs from protecting a site for benthic species to protecting key areas for more mobile fauna".

Overseas territories

Fourteen of the UK's Overseas Territories are recognised as globally significant biodiversity hot-spots. Sanders stresses the importance of protecting them now before any ill-effects become apparent. "So the establishment of well-planned MPAs in the UKOTs is a great step in protecting marine biodiversity."

But she warns: "The success of an MPA is not just about establishing it in the right place, or to protect the right habitat/species. It must also ensure that there is appropriate and adequate management in place." In the past, MPAs have been designated without the right management and so they ended up as 'paper parks', she explains.

Sanders is keen to stress the role of those who need to buy-in to MPAs to ensure that they work: "Stakeholder engagement is vital in the success of an MPA. If stakeholders, particularly those affected financially, are supportive then it will likely be more successful." This is particularly important for highly mobile species, such as cetaceans, fish and turtles. EU legislation such as the Marine Strategy Framework Directive mandates that member states work together to address transboundary issues in MPA planning.

International agreement

Susan Gubbay, an independent consultant on MPA policy and management, is worried that while the conservation of biodiversity in the high seas is enshrined in UNCLOS (United Nations Convention on the Law of the Sea), "putting this into practice is dependent on negotiations between many interested parties". Moreover, there is no specialised entity to oversee biodiversity conservation in the same way that IMO regulates shipping, or the International Seabed Authority monitors deep-sea mining.

However, she notes that the UN agreed in January 2015 to develop a legally binding treaty on high seas biodiversity. "This will be an ideal forum to set out mechanisms to establish, manage and monitor a global network of MPAs. But it is likely to take years to come to fruition."

While biodiversity and fish stocks will no doubt benefit from the introduction of some strongly protected and expansive MPAs, it also creates a conflict with commercial interests – fisheries now and mining in the future. And, Gubbay observes, there is also a rarely discussed political dimension: a country establishing some sort of jurisdiction over an area of the high seas might acquire rights to resources currently in common ownership.

Some would prefer to go even further, making a bio-economic case for declaring the high seas 'out of bounds' to fishing entirely. This, it is argued, could lead to significant gains in fisheries, profits, yields and fish stock conservation in exclusive economic zones. This idea would, in effect, put an end to the 'tragedy of the commons' by restricting fishing to areas that are under the jurisdiction of one or more countries. Radical words – but no more radical than similar ideas being contemplated in a terrestrial context.

It is essential that the terminology and the various definitions are recognised and debated – and then acted upon – by policy and decision makers and their scientific advisors.