

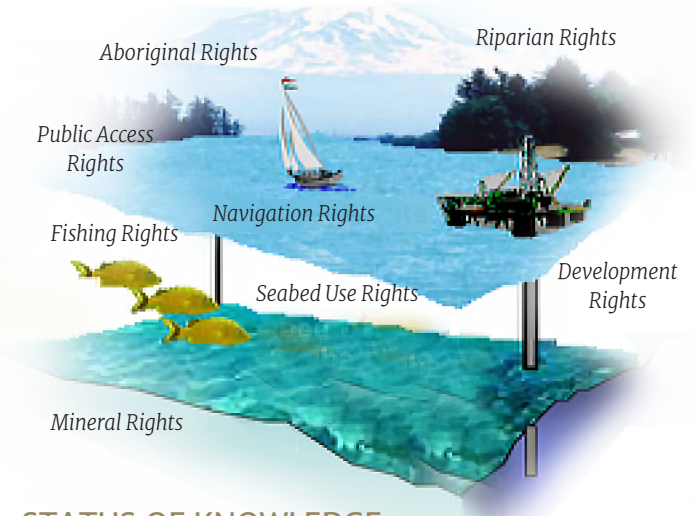
Marine Spatial Planning

IDENTIFICATION OF THE ISSUE

Marine spatial planning (MSP) seeks to plan and manage sea uses and engage users in a way that helps achieve sustainable development of marine areas. The rationale for MSP is to provide a stable and transparent planning system for maritime activities and users, within agreed-upon environmental limits, to ensure that marine ecosystems and their biodiversity remain healthy.



Currently, marine activities tend to be managed on a sector by sector basis, thereby limiting the consideration that can be given to other marine activities likely to occur in the same space, as well as the effects of activities on the receiving environment. Failure to take a more holistic approach to planning can result in conflicts between different marine users and activities and potential effects on the marine environment.



STATUS OF KNOWLEDGE

As a process that has the potential to influence activities in marine spaces now and in the future, the implementation of MSP is of direct relevance to the marine renewable energy (MRE) sector. MSP is utilized in many of the countries that participate in the work conducted under Annex IV of the International Energy Agency's Implementing Agreement on Ocean Energy (IEA-OES). A questionnaire completed by participating Annex IV members addressed how the needs of the MRE sector have been incorporated into MSP, how scientific information has been used, and whether there are any limitations to implementing MSP presently or in the foreseeable future. Survey results supplemented by relevant external documentary sources derived the information provided in the table.

FUTURE RECOMMENDATIONS

Because MSP is a relatively new management approach and MRE is a comparatively new use of the marine environment, it is difficult to draw firm conclusions about the extent to which one is influencing the other at this time. Not all Annex IV countries have a formalized MSP system, but many have equivalent approaches such as regional plans or coastal management plans. There is a strong desire for land and sea planning systems to become more coordinated, and MSP is one approach to facilitate this. To date there has been limited consideration of MRE in MSP with few practical examples. In certain countries there is little demand for marine space, so MSP is low on the political agenda. The scientific data needed to support planning of marine and coastal uses needs strengthening and MRE data appear to be limited to the availability of the physical resource.

Limitations to the implementation of MSP reflect technical, political, and financial aspects that can be barriers in a number of different countries. What is clear from all survey respondents is that there is a strong desire for more integrated planning and high hopes that MSP

will solve some of the existing issues associated with development of marine areas. In general, all participants (developers, regulators, and stakeholders) want examples of good practices that can be applied in their areas.

Summary of the MSP processes currently in place in the Annex IV participant countries. Countries are at different stages of implementing MSP, which can take many different forms.

Country	Status	Comments
United Kingdom, England	MSP process in place	The Local Plan Authority prepares a marine plan for each marine area. This is a result of recent legislation, which provides a legal framework for marine planning and the creation of the Marine Management Organisation.
United Kingdom, Scotland	MSP process in place	Marine Scotland Act was enacted in 2010, with Marine Scotland acting as the management authority. This provides a streamlined marine planning and licensing system through regional marine plans, licensing process, and enforcement provisions.
United Kingdom, Wales	MSP process in place	The Welsh Government is working on developing a Welsh National Marine Plan that covers both offshore and inshore waters.
United Kingdom, Northern Ireland	MSP process in place	The Northern Ireland Marine Act, similar in structure to other UK jurisdictions, provides the structure for developing marine plans.
Portugal	MSP process in place	The Portuguese government has been working on creating MSP for a number of years and now has a comprehensive nested system for marine plans.
Sweden	MSP process in place	MSP is governed by the Swedish Environmental Code and was augmented in 2014 by specific MSP legislation, which recognizes MSP is necessary for conservation of marine areas.
China	MSP process in place	Marine Functional Zoning (MFZ) plans are established by the state; zoning divides sea space into different types according to specific criteria.
Spain	No formal MSP	The Spanish government has explored the feasibility of MSP for siting wave energy converters on the Basque continental shelf.
Ireland	No formal MSP	The Irish government is working on reform of the marine licensing process and new legislation is expected in 2015. "Harnessing Our Ocean Wealth" (HOOW) is a national integrated marine plan and identifies the need for MSP framework.
Japan	No formal MSP	Basic Act on Ocean Policy 2007 provides a legal basis for the integrated management of coastal areas and river basins.
Nigeria	No formal MSP	Governance of the marine area is fragmented; multiple authorities have legal remits and responsibilities.
United States of America	No formal MSP	Though there are political barriers to national action, regional MSP activities have taken place and the National Ocean Policy, enacted in 2010, includes MSP as a focus area.
South Africa	Equivalent approach to MSP	National Coastal Management Programme (NCMP) aims to resolve existing management problems and user conflicts.
Norway	Equivalent approach to MSP	Several pieces of legislation and policies provide Integrated Management Plans and seek to protect biodiversity as well as facilitate coexistence of different activities.
New Zealand	Equivalent approach to MSP	Several policies and laws enable marine planning in a regional fashion through coastal plans.
Canada	Equivalent approach to MSP	Several policies and laws designate five large ocean management areas created to plan and manage marine activities using an integrative approach.

FOR MORE INFORMATION

Annex IV State of the Science full report and executive summary available at: <http://tethys.pnnl.gov/publications/state-of-the-science-2016>

Contact:
Andrea Copping
Pacific Northwest National
Laboratory
andrea.copping@pnnl.gov
+1 206.528.3049

Go to <http://tethys.pnnl.gov> for a robust collection of papers, reports, archived presentations, and other media about MRE development.



Energy Efficiency & Renewable Energy



Proudly Operated by Battelle Since 1965