

MARINE SPATIAL PLANNING: A TOOL FOR ACHIEVING SDG14.2

1 Introduction

UN's Sustainable Development Goal 14.2 is directed towards being able to "sustainably manage and protect marine and coastal ecosystems" while taking action towards their restoration (UN General Assembly, 2017). A solution to achieve this goal is to implement marine spatial planning (MSP) in an attempt to organise the oceans for multiple purposes, in a sustainable way. All stakeholders in an area come together and decide what to do with the space, including resources as aquaculture, energy, fishing, etc. (Santos, 2019).

MSP has had a huge growth over the last years. China was one of the earliest countries to start planning their marine area, dating back to 1998. Some European countries followed a couple of years later with their planning in 2002 and having approved plans by 2005. (Ehler et al., 2019). Since 2017 approximately 66 countries out of 150 have begun to establish MSP's on their way to reach sustainable use of ocean areas. Some of the nations are just in their initial phase when it comes to planning, for example Greece and Madagascar (IOC- UNESCO, 2017b). On the other hand, over twenty countries, including Norway and China, have MSP currently approved for their entire Exclusive Economic Zone (EEZ). These nations are mostly found in Europe where 37% of the countries have MSPs ready and 28 % of the regions in America (Santos, 2019).

2.1 Stages of MSP

Heffernan (2015) has put the ideal process of MSP into nine specific stages:

Stage 1: Previous to the preparation of a draft plan for a specified area, the MSP body will publish notice. Inviting submissions from stakeholders and the general public is also part of this stage. (Heffernan, p. 11)

Stage 2: Relevant spatial scientific and statistical data will be assembled; specifically the current economic, social and environmental status of the area of the plan. (Heffernan, p. 11)

Stage 3: The MSP body will collect and analyse data "to map opportunities for future use of marine space within the area of the plan" (Heffernan, p. 12).

Stage 4: A draft plan will be prepared, likely comprising of a written policy statement, a series of maps, and "measures to assess whether the plan's objectives are being achieved in practice" (Heffernan, p. 12).

Stage 5: Statutory consultees, stakeholders, relevant NGOs, and the general public will be notified that the draft plan and environmental assessment(s) are available. Following, there will be a specific period of consultation. (Heffernan, p. 13)

Stage 6: All the submissions will be reviewed and decisions will be made over which to integrate and modify into the plan and which to exempt. (Heffernan, p. 13)

Stage 7: The revised draft plan will be submitted for formal approval. (Heffernan, p. 13)

Stage 8: The plan will be implemented, and then the effects of this will be monitored. (Heffernan, p. 13)

Stage 9: In order to be able to respond to changing circumstances, it is important to review MSPs periodically and to reflect the outcomes of the monitoring process. (Heffernan, p. 14)

2.2 Norwegian MSP

Norway has three separate MSPs covering the Barents Sea & Lofoten Islands (Meld. St. 10 (2010-2011)), the Norwegian Sea (Meld. St. 37 (2008-2009)) and the North Sea & Skagerrak (Meld. St. 37 (2012-2013)), see Figure 1. These three plans combined cover the entire Norwegian EEZ, approximately an area of 2 385 000 km² (UNESCO, s.a.).

In 2001, Stortinget got a recommendation from the Norwegian Ministry of the Environment called “Protecting the Riches of the Seas” (Meld. St. 12 (2008-2009)). The development of the first Norwegian MSP plan began when Stortinget adopted this recommendation, the same day it was presented. For the Norwegian MSP development timeline, see Figure 2 (based on UNESCO, s.a.).

This recommendation report initiated the MSP development in Norway. The overall goal of the recommendation was to:

This Government intends to develop tools and processes which help lay the foundations for an overall policy on the marine environment, i.e. a policy where the sum of all influences is assessed on the basis of what is known about the structure of the ecosystem, the way in which it functions and its condition. (...) This Government is therefore preparing a future system of management that will be ecosystem-based and that will extend across all sectors.

(Meld. St. 12 (2001-2002), pp.9)

What makes the Norwegian MSP unique is primarily that Norway has three separate MSP plans, each covering its geographic part of the Norwegian EEZ. Another key principle is that the Norwegian MSPs are knowledge-based, i.e. using science to support the content in the plans (Meld. St. 12 (2001-2002)).

A third unique element is that the MSP plans aim to include all relevant sectors in the process. For example, when the Barents Sea plan was developed, the fishing industry, the transport and shipping industry, and the oil industry, all contributed in the process.

2.3 SDG Synergies Through MSP

All human activities at marine environments take place in an integrated manner (David et al, 2017). Therefore a holistic approach is necessary with the potential to bring together all important aspects of the oceanic activities to one platform. MSP not only holds this potential but also provides necessary synergies among related SDGs. Well-managed marine protected areas can improve local livelihoods and benefit local communities, leading to empowerment, improved governance, alternative livelihoods, improved fisheries, and social, educational, and cultural benefits (Salm and Siirila, 2000; Sobel and Dahlgren, 2004; FAO, 2011). This relates to SDG1, SDG2, SDG4, SDG8, SDG10 and SDG16. Moreover, as oceans are important regulators of climate (Jackson et al, 2014), well managed oceans which can be achieved through MSP can positively effect SDG13. MSP can also have an influence on achieving harmony between oceanic and terrestrial ecosystems, linking SDG14 and SDG15, as the ocean status feeds back to terrestrial habitats and provisions of food. SDG14 has a clear trade off with SDG2 i.e zero hunger. Increasing food security along with global population will put more burden on the oceans as means of extracting food sources in order to match the demanding needs of the people (Rice and Gracia, 2011). MSP thus through its holistic approach can help bridge this disparity and help achieve targets for one without negatively impacting the other.

3.1 Future suggestions

The vast amount of research currently available on MSP dictates the first future suggestion which is to consolidate research in order to define and understand different levels of protection or management that apply to different areas under MSP. There should be more distinct categories and separation so we are clear on how plans support restoration and sustainability compared to extraction and exploitation (Spalding

et al., 2016). Next we emphasize the importance of creating quality plans over simply including large spatial areas, reaffirming that spatial goals should be encouraging indicators of conservation, not the final target. Following from this, if areas are defined and chosen for MSP due to the quality of their ecosystem services and biodiversity, an understanding of the relative importance of these areas and services to stakeholders is imperative (Flannery et al., 2016). Stakeholder integration is not only a moral and ethical consideration in terms of planning implementation but also integral in the ongoing support and success of a plan. Finally we suggest an adaptable framework which builds detail into more basic MSP plans (as described in 2.1) (Tafon, 2017). This is important in order to holistically apply management and planning but also necessary for monitoring progress and applicability of projects (Jentoft, 2017).

3.2 Conclusion

As discussed, MSP is a strategic mechanism that can be used to help achieve SDG14.2. A high quality of integrated implementation, management and monitoring is imperative in a plans success; this must also include applying stakeholder opinions. There are a number of suggestions for future directions of MSP that would help to ensure its holistic applicability and continued success. In summary, the world's marine environment depends on our actions, well implemented MSP can help direct towards a sustainable future.

4 References

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