MARINE SPATIAL PLANNING IN THE CONTEXT OF THE CONVENTION ON BIOLOGICAL DIVERSITY
A study carried out in response to CBD COP 10 Decision X/29 by the GEF STAP

Key Messages

Marine Spatial Planning (MSP) has the potential to transform the way the oceans are managed. This report explores spatial management as a means to protect marine and coastal biodiversity while at the same time addressing human needs across coasts, around estuaries and deltas, in near shore environments, and on open oceans. It synthesises available information on the scope of MSP activities around the world, the lessons learned about the utility of spatial planning and management, processes and tools used, and criteria for success at various scales. The report reviews conventional approaches, identifies innovative new tools, and discusses the potential MSP has - as yet not fully realised - in aligning conservation and development interests while protecting vital ecosystems, the valuable goods and services they deliver, and the biodiversity they support.

The report is not intended to be a comprehensive review of marine spatial planning. Rather, it provides a concise response to the request by COP 10 Decision X/29 para 75 “to compile and synthesise available information in collaboration with Parties, other Governments and relevant organisations on their experiences and use of marine spatial planning, in particular on ecological, economic, social, cultural and other principles used to guide such planning and the use of area-based management tools”. Large and small scale MSP practices have been examined in countries of different socio-economic characteristics. Although most MSP processes are still in their early stages, making it difficult to draw inferences, commonalities are already emerging in terms of what works and what does not in various contexts.

Defining marine spatial planning

Marine spatial planning (MSP) is a framework which provides a means for improving decision-making as it relates to the use of marine resources and space. It is based on principles of the ecosystem approach (EA) and ecosystem-based management (EBM). All MSP exercises are spatial (place-based) management processes no matter at what scale and in what social context or biome it is being practiced. It is also temporal, utilizing forecasting methods and fully taking into account seasonal dimensions.

Marine spatial planning is not a substitute for integrated coastal zone management or integrated marine and coastal area management (IMCAM), but rather builds on these important approaches and the policies that support them – including efforts to establish marine protected areas (MPAs). MSP is not an end in itself nor is it a specific policy - rather it is a planning framework that focuses on the unique and dynamic spatial planning requirements in marine ecosystems to sustain the goods and services society needs or desires from these environments over time.

Theory and practice of MSP

One size does not fit all in marine spatial planning. While there is no single model for MSP, there is a generic planning process that involves establishing a vision, setting goals, and determining measurable objectives from which allocation of space and resources can flow, as well as the area-specific management needed to sustain the ecosystems that stakeholders collectively value.

Goal-setting is a necessary first step in all marine spatial planning exercises. Strategic goals, defining what needs to be done to achieve the vision, are somewhat more general than objectives in MSP processes. The most effective plans are those developed in response to very clearly stated, very specific
objectives. Measurable success occurs when objectives have metrics associated with them, with agreed upon indicators and targets.

Effective mapping and spatial enabled data is central to the success of MSP. Maps of environmental characteristics, species and habitat distributions, ecosystem goods, services and vulnerabilities, the ways society values marine and coastal space, human activities or pressures and their cumulative impact are data demanding. In many cases this is the main technical and scientific barrier to MSP.

MSP involves not only developing plans, but examining trade-offs and developing scenarios that can help raise awareness about the consequences of decisions regarding access to and use of ocean and coastal space and resources. The consequences of implementing a spatial management plan (both negative and positive - e.g. displacing fishers, adding costs for industrial users, reducing user conflicts) should be anticipated and evaluated, either through trade-off analysis, scenario development, or by simple stakeholder discussions on possible outcomes.

**Challenges and barriers to marine spatial planning**

Multiple constraints and barriers to comprehensive marine spatial planning exist, especially in multi-jurisdictional arenas. These can be categorized primarily in four ways: institutional barriers, environmental or ecological considerations, social constraints, and economic limitations. In some cases poor institutional engagement with MSP may exist, due at times to a lack of understanding of the process and the multi-disciplinary nature of the exercise (along with the technical capacity required to engage in these processes). Moreover, agencies may believe that they are being disenfranchised from traditional areas of management.

As noted above, successful MSP is data dependant, which represents challenges in particular to the environmental and ecological data required. Understanding and accurately assessing multiple and cumulative impacts to marine environments represents an important element in the process. In addition, reconciling large scale planning which is typically top-down in nature with local, bottom up planning approaches is also essential.

Economic considerations are important to all planning processes and is certainly the case with MSP, particularly where traditional uses are coming up against new economic activities in the marine environment – such as wind farms, mining, or deep sea oil drilling. Clear attention to costs and benefits, as well as accurately representing the true value of marine resources is critical.

**The strategic role of MSP in management of transboundary resources**

In theory, marine spatial planning can be undertaken in transboundary space and areas beyond national jurisdiction (ABNJ), but experience in systematic planning in such areas is rare. With few exceptions, MSP is still a localized or national approach, tailored to the specific needs and conditions of a particular state, however it has great potential to improve management of shared resources at ecosystem and transboundary scales.

Existing multilateral institutions such as those that support Regional Seas and Large Marine Ecosystems are the obvious platform for the implementation of transboundary MSP, and can take the diagnostic analyses and strategic action plans (SAP) that flow from these analyses into the management realm. The participation of organizations such as the International Maritime Organization (IMO), regional fisheries
management organizations (RFMOs), and the International Seabed Authority and the International Maritime Organization is necessary for implementing MSP in areas beyond national jurisdiction.

**Key characteristics of success**

Essential elements for MSP success include a supportive legal framework to enable MSP and to drive obligatory objective-setting and prioritisation, and an effective governance system that allows participatory planning clear accountability – within a framework of adaptive management in which strategic goals and objectives are periodically revisited. The optimal approach seems to be of nested institutions in which local level institutional policies are supported by national institutions, while local institutional actions are in agreement with national priorities. In preparing for MSP, there should be clear definition of issues to be addressed by MSP, and the possible risks and costs in engaging in the process. Finally, creating realistic timelines for the MSP process is fundamental to finding and keeping support from stakeholders, donors, and implementing agencies.

**Conclusions**

The development and introduction of MSP offers multilateral institutions an enormous opportunity to invest in capacity building, leadership development, mechanisms to address governance challenges, reduction of institutional overlaps/gaps, and development and use of conflict resolution mechanisms through MSP initiatives. Key management approaches include:

- Strengthening governance, institutional and legal frameworks conducive for MSP mainstreaming into existing management frameworks;
- Establishing or enhancing monitoring, data analysis and scenario modelling of ecosystem goods and services as a basis for MSP development;
- Supporting impact assessments and embedding effectiveness monitoring into existing MSP efforts; and
- Nurturing and facilitating collaboration across multilateral organizations, government, private and public sectors, educational and scientific institutions, indigenous and local communities in the development and implementation of MSP.

Marine spatial planning is a framework supporting ecosystem-based management, in that it recognizes the connections between land, freshwater, and marine ecosystems, and addresses human uses and impacts of importance in all these systems. As such, comprehensive MSP has the potential to greatly improve management of marine ecosystems, reduce the loss of ecosystem services, help address or avoid conflict, and create economies of scale and efficiencies for enforcement and management. MSP has great potential as an organising framework, and serves as a worthwhile investment through which national (and transboundary) marine management can be strengthened.

*Full report available on: [http://www.unep.org/stap](http://www.unep.org/stap)*