

Pan Adriatic Scope

Adriatic-Ionian
cooperation
towards MSP



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MSP: working together for a shared future

A study which provided indicative information on cross-border and transboundary Maritime Spatial Planning (MSP) in the Adriatic-Ionian region (AIR) was recently completed. It aimed to identify common principles and elements for MSP implementation, as well as issues and areas where planning and management would be enhanced through cooperation among the countries of the region.

The need for coordinated MSP in the AIR has become increasingly clear in recent years. While diverse issues and sectors are involved in the growing blue economy, they all share an increasingly crowded marine space where resources are limited and ecosystems are under strain. MSP is still relatively new in the AIR, but it is already obvious that such planning will require cooperation among AIR countries to assure a sustainable future, where socioeconomic development and environmental protection are in balance.

Across the AIR, this means working to agree on common MSP principles and elements. Visions and strategies, legal and institutional frameworks, data collection and structuring, guidelines, methodologies, best practices – for MSP to operate effectively on a regional level integration is critical, as are collaboration and cooperation.

In this summary of the study's key findings, the context for MSP in the AIR is surveyed, along with an exploration of how the growth of the blue economy, along with other factors, is putting increasing pressure on the region's marine resources. Next the central characteristics of an effective strategic approach to transboundary MSP are discussed, before the summary ends by looking at some of the areas in the region where transboundary cooperation is most obviously needed in approaching the challenges which MSP must address.

Conceptual Framework for MSP

'The Conceptual Framework for Marine Spatial Planning' in the Mediterranean was adopted by the Contracting Parties to the Barcelona Convention in 2017, to coordinate efforts to achieve Good Environmental Status (GES), increase knowledge on land-sea interactions, and build sustainable and coherent land and sea use planning frameworks for key sectors and activities. Importantly, it gives a common context for all Contracting Parties for the implementation of MSP in the region.

Bringing MSP into the Barcelona Convention as a key tool for Integrated Coastal Zone Management (ICZM) puts it on a firmer institutional footing. MSP currently varies considerably between AIR countries in terms of its legal basis, the areas it includes, and its stage of development. It essentially remains a national or sub-national process, and a key challenge is to move it onto a more formal level where cross-border and transboundary cooperation underpin approaches to major common problems and opportunities, while enabling joint planning and management of shared marine areas.

Previously, the EU MSP Directive of 2014 gave initial momentum to MSP processes in the AIR, with non-EU countries also embarking on their first steps. The European Union Strategy for the Adriatic-Ionian Region (EUSAIR) and the UN Environment Programme/Mediterranean Action Plan (UNEP/MAP) have essential roles to play in driving the process.

MSP: economic context

MSP must integrate diverse economic sectors and address a range of environmental challenges, all within the relatively small and semi-enclosed sea basin of the AIR. In the region's fast-growing blue economy, the sectors competing for space include:

AQUACULTURE



This fast-developing sector is expected to continue growth and diversification as demand for fish products rises in parallel with a decline in wild stocks. But a lack of suitable sites for new operations may constrain the sector, as may conflicts with capture fisheries, tourism and environmental protection.

TOURISM

The Mediterranean is one of the top tourist destinations in the world, and the AIR is among the top tourist destinations in the Mediterranean. Coastal tourism, cruise tourism and recreational boating are all expected to continue their current growth trends. However, this growth must be managed sustainably, or it will have negative impacts on the characteristics of the region that attract the tourists in the first place, with potentially severe ecological and economic consequences.



FISHERIES



This traditional activity, largely made up of small-scale fisheries, makes an important economic and cultural contribution in many AIR nations. But the region's shared fishery resources are at increasing risk from overfishing, habitat degradation and climate change; with effective joint management of diminishing extraterritorial fish populations posing a particular challenge.



MARITIME TRANSPORT

Fundamentally important to the whole region, container shipping in particular is expected to increase in the North Adriatic for the next 20 years as a result of growing eastern European economies and the doubling in capacity of the Suez Canal. A joined-up regional approach to managing higher levels of marine traffic is essential.

OIL AND GAS



The Adriatic has one of the highest concentrations of oil and gas activity in the Mediterranean, with expansion now taking place across the region. International cooperation is particularly important since the potential environmental risks of the sector need collective management.

In general terms, current trends in the AIR show a tendency to prioritise blue growth over ocean sustainability. Continuing to do so though will inevitably bring increasing conflicts between sectors over resource use, and increasing environmental impacts. As far as possible, MSP must balance the first of these and minimise the second.

Transboundary MSP challenges

While MSP is essentially a national process, the need for transboundary cooperation on shared challenges in the AIR is clear. The Conceptual Framework for MSP explicitly calls for a regional approach to several issues, the most important of which are discussed below.

ECO-CONNECTIVITY

Marine ecosystems and the rich biodiversity of the Adriatic and Ionian Seas are under heavy pressure from the high concentration of sea uses in the AIR. Only by taking an ecosystem approach to management and conservation will it be possible to preserve the unique marine resources of the region, and this means protected areas must be planned on a scale that transcends national borders.

25
COASTAL MPAS
PROTECT SOME
OF THE MOST
SENSITIVE
LOCATIONS

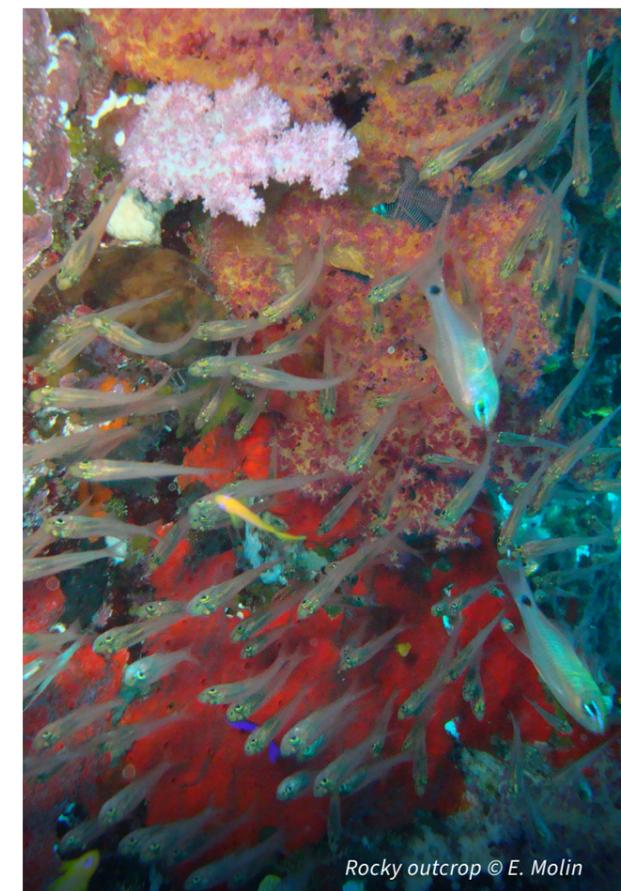
There are a number of tools and instruments available to create transboundary Marine Protected Areas (MPAs). Currently, 25 coastal MPAs protect some of the most sensitive locations in the region, with another 4 planned, but they cover less than 1% of the total sea surface and offer widely varying degrees of legal protection.

4
NEW MPAS
PLANNED

However, there is little point in protecting a small portion of the marine environment while leaving the rest unmanaged. MPAs support much greater ecosystem resilience when they are part of ecologically coherent networks spreading across a large geographical area, with the MPAs as key nodes of a much wider space.

LESS THAN
1%
OF THE TOTAL
SEA SURFACE

MPA networks also allow for improved coordination of best practice management approaches, a function promoted by the MedPAN and AdriaPAN groups of MPA managers in the region. In addition, so-called 'blue-green corridors' among areas with high natural value in coastal zones can be created as part of the MSP process to connect fragmented and



Rocky outcrop © E. Molin

isolated ecosystems, enhancing biodiversity and the ecological status of the sea, and improving the quality of life of local residents.

The Barcelona Convention gives particular attention to MPA networking, providing a roadmap towards a more coherent, representative and efficient network across the whole Mediterranean.



Clam fishing boat, Venice lagoon © E. Ramieri

SUSTAINABLE FISHERIES

The Adriatic Sea has been exploited for centuries by a variety of fishing activities, ranging from small-scale artisanal fisheries and recreational fishing, to commercial fisheries using hydraulic and trawled dredges for clams and scallops, otter trawling for exploiting demersal resources, mid-water trawls and purse seines for pelagic species, and pelagic long-lines for tunas.

This intensive exploitation has caused the widespread degradation of marine habitats, the decline of target and non-target species, food-web alterations, and major losses of ecosystem services. The situation is considerably worse in the international waters of the Adriatic Sea, where fishing effort is most intense and where important nursery and spawning areas for a large number of economically valuable species are located.

The shared status of Adriatic fish stocks means that regulatory frameworks imposed by a single state have little or no chance of conserving fish populations: a transboundary approach to fisheries management across the AIR is the only way of ensuring sustainable exploitation of commercial species. MSP has an important role to play in this regard, covering fisheries-related issues such as the identification of Fisheries Restricted Areas (FRAs) and other area-based protection measures, natural resource exploitation, litter and the impact of trawling on the sea bottom. With this in mind, UNEP/MAP and the General Fisheries Council of the Mediterranean (GFCM) are working together to promote a range of international fisheries co-management initiatives and best practices.



Ocean pollution © R. Carey

MARINE LITTER MANAGEMENT

Marine litter is an increasingly important global issue, and it's a serious problem in the AIR, posing an economic risk to tourism and fisheries. Clean seas and beaches attract tourists and are a key indicator of GES according to the Marine Strategy Framework Directive, but high numbers of visitors – particularly in major urban tourist centres – generate high volumes of waste. Fisheries, aquaculture and a range of land-based activities also contribute to the problem. Much of this waste becomes beach litter, floating macro-litter (items >2.5cm) or seabed litter.

Information on marine litter in the AIR is still limited, and transboundary cooperation on increased monitoring and research is needed. The Barcelona Convention includes a number of tools aiming to reduce or eliminate marine litter, offering the opportunity to manage the issue at basin level.

For economic as well as environmental reasons, existing pollution needs to be cleaned up, future pollution needs to be prevented, and public awareness about litter needs to be increased across the AIR. Transboundary waste management and prevention should be integral to MSP processes – sea borders have no influence on the spread of pollution.

Other MSP challenges

Transboundary cooperation may also be required over MSP issues relating to:

- Preservation of underwater cultural heritage (UCH)
- Sustainable tourism management
- Shipping and port management
- Further joint scientific research

Principles for effective MSP in the AIR



Boats returning to Ortona port, Adriatic Sea © Gimias/Shutterstock



Ecosystem approach

Ecosystem approach goes beyond examining single issues, species or ecosystem functions in isolation, aiming to achieve integrated management of land, water and living resources that provides sustainable delivery of ecosystem services in an equitable way.



Transboundary cooperation

Ecosystem approach application in MSP relies on transboundary cooperation. Neither geopolitical nor sector-based approaches can enable wise management of all the uses within a marine area.



Data exchange

Transboundary data exchange is a crucial part of MSP. However, the range of data protocols and formats across the AIR means that harmonising the data remains a challenge.



Tools and training

Integrating the different levels of technology and complexity of the available MSP solutions to create a harmonised workflow is by no means straightforward, and there is a clear need for an increase in training of MSP practitioners.

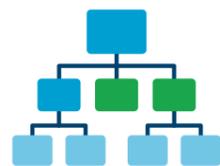


Strategic Environmental Assessments

MSP in the AIR is subject to the Strategic Environmental Assessment (SEA) Directive. SEAs integrate environmental considerations into the planning process, providing a frame to evaluate effects on species and habitats of conservation importance.



Saško Jezero and River Buna/Bojana (transboundary Albania/Montenegro) © S. Vilus



Multi-scalar MSP

Regional MSP can provide a common base to inform national and sub-national MSP processes, which in turn identify challenges and opportunities where transboundary cooperation is most needed.



Adaptive approach

MSP is not a one-off, fixed process: it adapts over time. MSP actions should be tailored to changing conditions, and previous experiences should be learnt from and built on.



Monitoring and evaluation

Monitoring and evaluation are two of the most important phases of adaptive MSP. As UNESCO says, “without knowing what it is that existing marine spatial plans are achieving (or not achieving), how will it be possible to improve them the second time around?”



Climate change

Climate change will continue to grow and evolve as a factor to incorporate into MSP processes. Ocean warming, acidification and sea level rise are altering current conditions and changing the way ecosystem goods and services are distributed, and their cumulative impacts will increase significantly.

Opportunities for cross-border and transboundary cooperation

The report identifies a number of areas within the Adriatic-Ionian region where cross-border or transboundary cooperation on MSP and ICZM can provide added benefits in terms of shared planning and management.

Brisani Bay © Afministrata Rajonale e Zonave të Mbrojtura Vlorë

Examples of areas requiring cross-border or transboundary cooperation on coastal and marine planning and management, according to national experts consulted for the study.

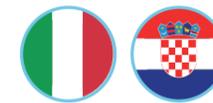


Priority challenges requiring cooperative approaches

AREA	Involved countries	Marine ecosystem protection	Eco-connectivity enhancement	Fisheries management	Marine litter management	Shipping and port management	Energy grid and pipelines planning	O&G resource management	UCH protection	Tourism management
Jabuka/Pomo pit		●		●						
Gulf of Trieste and Northern Adriatic			●	●	●	●	●	●	●	●
Bay of Neum-Klek, bay of Mali Ston and Neretva delta		●	●	●	●	●				●
Bojana river estuary and neighbouring areas			●	●	●	●				●
South-eastern Adriatic			●	●	●			●		●
Otranto channel		●	●	●	●	●	●		●	●
Strait between Kerkyra and Albania				●						●



1. Jabuka/Pomo pit



Italy, Croatia

A highly sensitive and critical spawning and nursery zone for key Adriatic fishery species, as well as an important fishing ground.

THREATS:

Overfishing, high fishing pressure on juvenile populations, benthic habitat damage.

OPPORTUNITIES FOR COOPERATION:

Cooperative science-based planning and sustainable management of shared stocks, habitats and fisheries activities; joint development of research programmes to ensure systematic knowledge of area and fish populations.



2. Gulf of Trieste and 3. Northern Adriatic



Italy, Slovenia, Croatia

Vulnerable ecosystems, habitats and species with a high presence of coastal and marine socio-economic activities including aquaculture, fisheries, tourism, oil and gas. Cargo and cruise traffic are particularly significant in the area.

THREATS:

Risk of accidents, oil spills and other marine pollution from shipping; multisector growth increases space conflicts and pressures on vulnerable environment.

OPPORTUNITIES FOR COOPERATION:

Define common shipping operation and safety approaches, prevent pollution, balance economic uses and environmental protection, investigate synergies and multi-use options between conflicting economic activities (e.g. enable specific methods of fishing within navigation scheme areas).



4. Bay of Neum-Klek, bay of Mali Ston and Neretva delta



Croatia, Bosnia and Herzegovina

A very sensitive and high-value area with internationally important biological and landscape diversity, including a Ramsar listed site.

⚠️ THREATS:

Pollution from maritime transport, agricultural runoff, insufficient wastewater treatment, poorly managed landfill; intensive aquaculture in river delta; tourist pressure on marine biodiversity.

✅ OPPORTUNITIES FOR COOPERATION:

Develop common methodologies/guidelines for MSP – vision, strategies, objectives, data and information-sharing. Focus on protecting of high-value natural areas, managing economic and tourist pressure factors, improving eco-connectivity.



5. Bojana/Buna river estuary and neighbouring areas



Montenegro, Albania

Local beaches and Ada Bojana island are important environmentally but have significant economic potential for further development of coastal tourism, while Drin bay (Albania) hosts valuable wetlands along with a commercial and fishery port.

⚠️ THREATS:

Development dynamics are increasing pressures on high-value natural elements, with upstream impacts from agriculture, tourism and urbanisation on coastal and water resources as well as marine impacts on the river delta and coastal aquifers.

✅ OPPORTUNITIES FOR COOPERATION:

Cooperation on area study/monitoring improves shared knowledge and informs strategies to protect natural elements. Joint multi-sectoral approaches strengthen cooperation to restore and safeguard ecosystems, increase climate change resilience and support social welfare.



6. South-eastern Adriatic



Croatia, Montenegro, Bosnia and Herzegovina, Albania

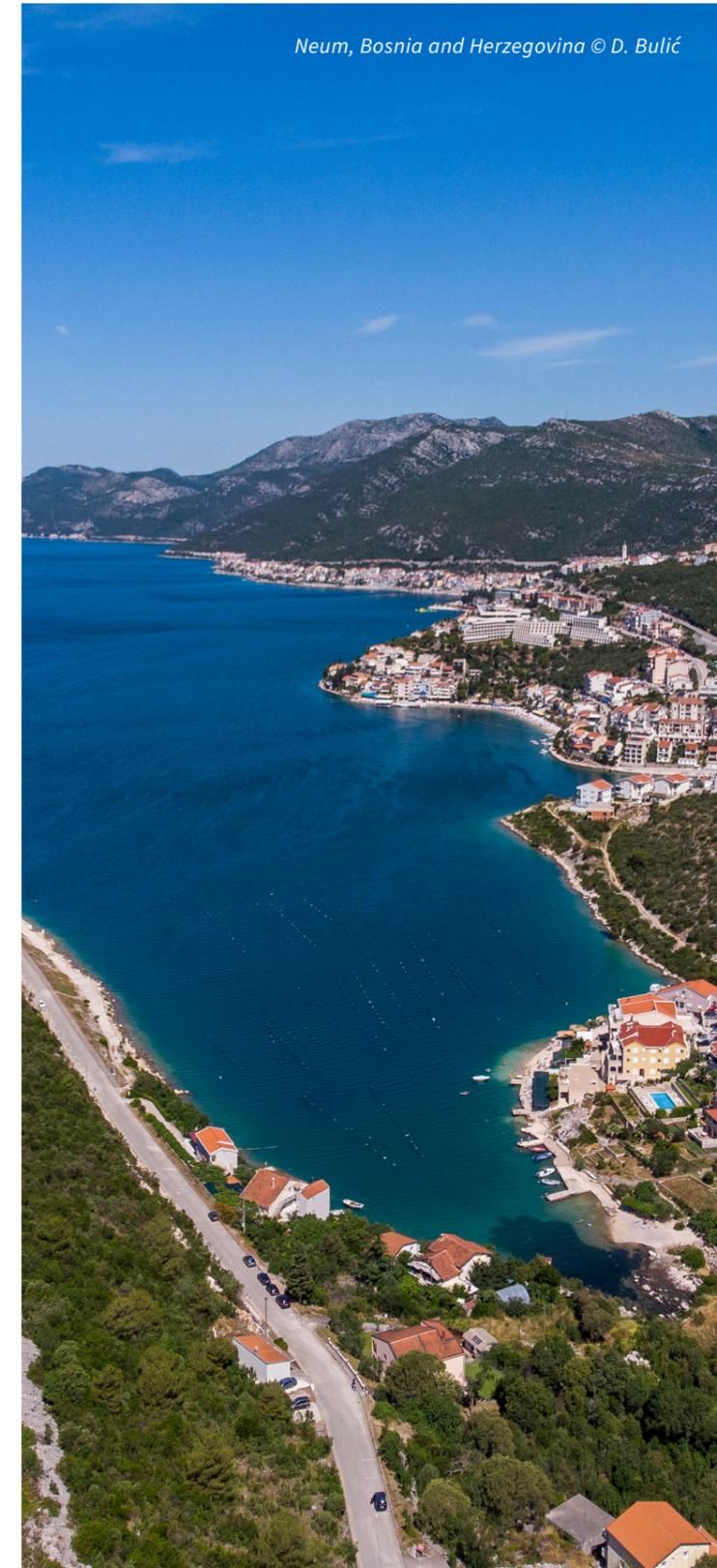
An area of high value ecological and cultural heritage with potential for further tourist development, this part of the region also holds significant submarine hydrocarbon reserves includes areas 4 and 5.

⚠️ THREATS:

Hydrocarbon exploration and exploitation can negatively affect tourism potential, which is also threatened by coastal and marine pollution, particularly marine litter.

✅ OPPORTUNITIES FOR COOPERATION:

Hydrocarbon exploitation and marine pollution are both issues that extend beyond national borders, and international cooperation in their management is particularly important in this part of the AIR. Cooperation will also be needed to agree a shared vision that prevents conflict between hydrocarbon activities and sustainable tourism development.



Neum, Bosnia and Herzegovina © D. Bulić



7. Otranto channel



Italy, Albania, Greece

An area of biodiverse and valuable ecosystems, the strait between the Adriatic and Ionian Seas is busy with shipping and is also home to commercially important fish stocks which provide food and income to a largely artisanal fleet. Tourists are increasingly attracted by the preservation of regional traditions, customs and culinary habits.

THREATS:

Pollution, marine litter, unsustainable development, land degradation and erosion negatively impact the area's biodiversity and environmental quality; while human activities and habitat fragmentation threaten cetaceans, turtles and other marine species.

OPPORTUNITIES FOR COOPERATION:

Cooperation is essential to address the prevention and reduction of chemical pollution and marine litter from ships and offshore activities; to manage transboundary movement of hazardous wastes; to protect the sea from land-based pollution; and to create a network of protected areas of natural and cultural value.



8. Strait between Corfu and Albania



Greece, Albania

Within the wider Otranto channel (see area 7), both land sides of this very narrow strait have beautiful landscapes and touristic appeal. The channel itself may include interesting marine species and habitats.

THREATS:

As well as the usual themes of pollution, marine litter etc, future development threatens the unique natural character of this region.

OPPORTUNITIES FOR COOPERATION:

There is scope for the creation of common guidelines for managing the strait's coastal and marine zones, focusing on human activities including fisheries, tourist cruises, small ports, cultural exchanges etc

Summary

The study shows that cross-border and transboundary MSP and ICZM have an essential role to play in the AIR. It identifies key challenges posed by the region's growing blue economy, and highlights the most important principles underlying successful and sustainable MSP in this context. The study identifies various Adriatic and Ionian locations where taking a cooperative approach to MSP will get the best results for everyone involved, and where the lessons learned will be of the greatest practical benefit across the AIR as a whole.

This last point is particularly important: MSP is still a relatively new field in the Mediterranean, and throughout its regions there are opportunities to capitalize on the results of this study under the Conceptual Framework for MSP. Building on the findings of the study to mobilize existing funding and create new funding opportunities will be a major step towards putting principles into practice.

The Barcelona Convention itself provides the impetus to develop new projects – e.g. CAMPs – to enhance effective MSP at regional, sub-regional and national levels. EUSAIR too is increasingly looking to identify MSP topics and issues that could be successfully addressed through transboundary cooperation.

The study can be used as a technical base to support a range of actions:

- Drafting future policy documents
- Mobilizing possible funding and creating new funding opportunities
- Testing principles/elements through MSP case studies
- Developing new projects in areas identified as key for cooperation
- Developing detailed studies on specific aspects, e.g. the legal basis for transboundary cooperation, or multi-level governance for MSP

PAP-RAC is keen to explore how to give momentum to these opportunities, providing a route to possible formal regional adoption of policies recommended in the study. Stakeholders across the AIR are invited to download the full report and join the conversation.



Gjiri i Dafinës /Dafina Bay
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The full version of *Pan Adriatic Scope – Adriatic-Ionian cooperation towards MSP* is available for download at www.paprac.org