

SUCCESS STORIES: BALANCING RESOURCES AND ECOSYSTEMS TO SUPPORT OCEAN RESILIENCE

Trawling ban in Øresund — fishing restrictions that preserve biodiversity in the Baltic Sea



Øresund (commonly called The Sound) is a strait between the island of Zealand in Denmark and the southwestern coast of Sweden in the Baltic Sea. The Sound is 118 kilometres long, varies between 4 and 28 kilometres in width, and hosts a high diversity of habitats ranging from complex boulder reefs to sandbanks and deep, soft sediments.

The Sound is one of only three entrance points to the Baltic Sea and the strait is frequented by approximately 35,000 ships annually. This has left little room for fishing activities, and a joint Danish and Swedish agreement instated a ban on bottom trawling in 1932. Even though the region is the most densely populated area in Scandinavia and subject to intense boat traffic, this rare, long-term absence of bottom trawling has resulted in a marine ecosystem that differs remarkably from adjacent seas.

The Sound is a biodiversity hotspot in the Baltic Sea. Species that have become rare elsewhere in this region, such as the tube-forming crustacea *Haploops tubicola* and the *Modiolus*

horse mussels, are still found in The Sound. Resident seals and harbour porpoises are regularly sighted, as well as the occasional Atlantic bluefin tuna and other visiting species. Altogether, more than 150 species of fish have been observed.¹ The Sound's cod population is one of the healthiest in the Baltic, with Øresund cod exhibiting much higher catch rates and a more natural age and size structure than cod in adjacent waters where trawling occurs.²

The Sound is truly a unique area of the Baltic Sea, which serves as evidence of the enormous benefits that can be achieved through long-term prohibition of mobile, bottom-contacting fisheries and of the great potential that lies in the Baltic Sea when it is provided with long-term, effective protection from known direct threats. Fortunately, Denmark has recognized the natural values achieved in The Sound and, in 2018, announced that the northern part of Denmark's Øresund will be officially designated as a Marine Protected Area under the EU Marine Strategy Framework Directive.

Good ocean governance in the Côte Bleue — fishers championing protection in the Mediterranean Sea

Established in 1983 next to Marseille, France, and included in the EU Natura 2000 network, the Côte Bleue Marine Park demonstrates how Marine Protected Areas can deliver good ocean governance.

The park aims to protect specific Natura 2000 habitats and species such as *Posidonia* seagrass meadows, Mediterranean coral reef habitats and fish like the dusky grouper. It includes two fishing reserves (no-take zones), where all fishing, dredging, anchoring and diving are forbidden. In the rest of the park, all activities, including recreational sports such as sailing, leisure boating and sea kayaking, are authorised under the general regulations at sea.

The active involvement of stakeholders in the Côte Bleue is a crucial component of the marine park's success. For example, concrete involvement of fishers in management and monitoring has proven effective to ensure sustainable artisanal fishing activities. Several studies have shown the tangible results of this co-management, with the "reserve effect" being demonstrated by the return of the dusky

grouper as well as the brown meagre fish in no-take areas.³ The population and average sizes of species that are highly sought after by fishers have increased, with four times more seabream, 1.6 times more wrasse and 2.7 times more serran in the *Carry le Rouet* no-take area than outside of it. As these species also leave the no-take areas, they bring benefits to the fishing community. As a result, fishers have adopted a more positive view of management measures in the area.



1. Øresundsvandsamarbejdet 2018. Fiskeriet i Øresund 2017. Øresundsvandsamarbejdet. Fiskene i Øresund. 76 p.

2. Svedäng H. 2010. Long-term impact of different fishing methods on the ecosystem in the Kattegat and Øresund, IPB/PECH/IC/2010_24 May 2010. 34 pp. <http://www.europa.eu/studies>.

3. Pianeti C., Kapedani R., Hardy, P.Y., Gallon S. 2019. Safeguarding Marine Protected Areas in the growing Mediterranean Blue Economy. Recommendations for Small-Scale Fisheries. PHAROS4MPAs project. 52 pages.

OUR MISSION IS TO STOP DEGRADATION OF THE PLANET'S NATURAL ENVIRONMENT AND TO BUILD A FUTURE IN WHICH HUMANS LIVE IN HARMONY WITH NATURE.



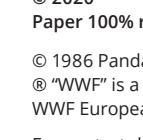
MARINE PROTECTED AREAS: EFFECTIVE CONSERVATION AND RESTORATION TO SUPPORT GOOD OCEAN GOVERNANCE

Human societies have long benefited from ocean services such as food resources, energy production, carbon sequestration, oxygen production and regulation of the Earth's temperature. However, increased activities at sea are amplifying tensions between the limited carrying capacity of our ocean and growing human pressures on marine ecosystems.

European seas are among the most intensely used in the world. This challenges the goals of good ocean governance, which aim for the sustainable use of our ocean. Effectively designed and managed Marine Protected Areas (MPAs) reinforce ocean resilience and productivity by conserving and restoring marine biodiversity. It's been demonstrated that well-managed MPAs cater to the needs of both nature and people – for example, through increased fisheries yields outside of MPAs.

Only effectively implemented MPAs can support sustainable ocean governance. This requires full recognition of the role thriving biodiversity plays in supporting ocean resilience and of the services the ocean provides to people. Appropriately implemented MPAs and strong ocean governance will contribute to achieving **United Nations Sustainable Development Goal 14: Life Below Water**.

In addition, as part of good ocean governance, properly implemented ecosystem-based Marine Spatial Plans will guide the management of our marine areas towards more sustainable practices. The use of our shared sea space must ensure that we do not overexploit this already degraded environment any further.



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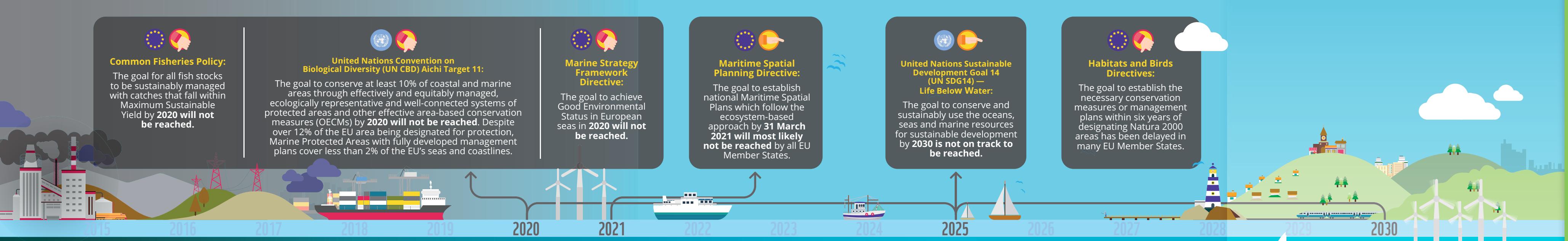
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Working together
to safeguard Marine
Protected Areas





POLICY RECOMMENDATIONS

✓ By 2030, ensure that 100% of the ocean is sustainably managed, with at least 30% protected within effectively managed MPA networks and at least 10% set aside as highly protected areas.

✓ Place conservation of biodiversity as the primary objective of each MPA and make sure that MPAs are designed as holistic, well-connected and representative networks with sites designated in ecologically meaningful locations.

✓ Ensure that ocean governance supports fully implemented management plans, monitoring, enforcement and transparent reporting in all sectors.

✓ Ensure the importance of MPAs in ecosystem-based Marine Spatial Planning by securing enough space for nature, relying on the precautionary approach when planning maritime activities and accounting for how pollution from land affects the seas, with due consideration to the limited carrying capacities of our ocean.

✓ Ensure meaningful participation of stakeholders throughout the MPA planning and management process.

✓ Ensure enough funding for the management authorities responsible for implementing management plans, monitoring and enforcing MPAs, and reporting on their status.

✓ Secure and further reinforce the sustainable use, conservation and restoration of marine and coastal resources, leading to a healthy, resilient and productive ocean.

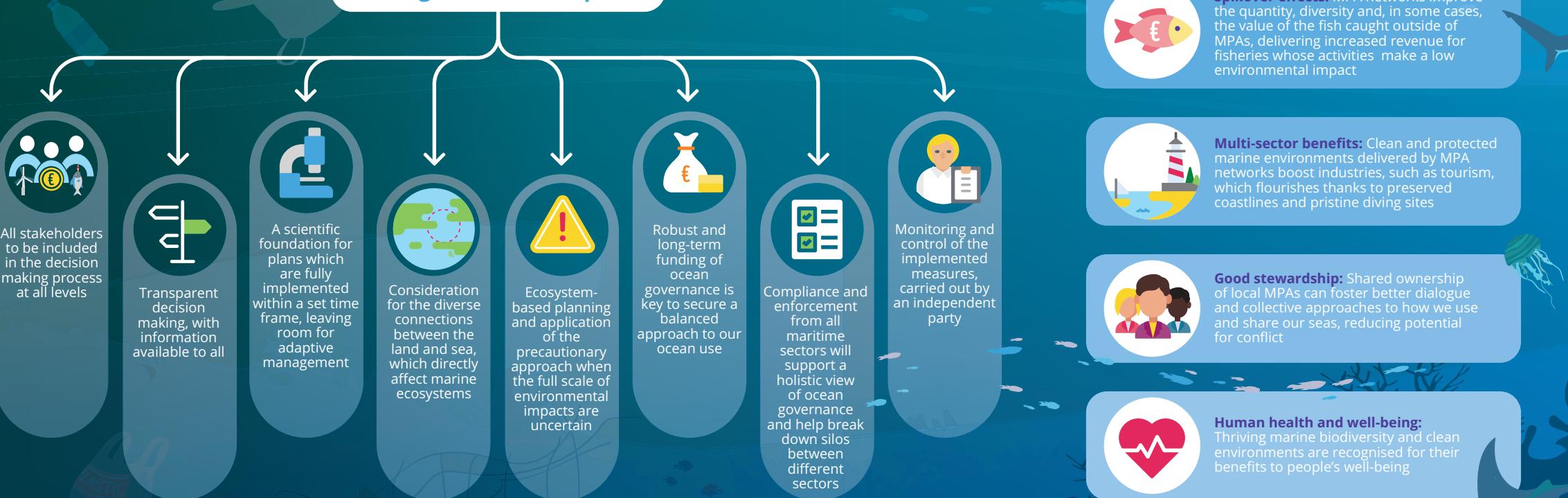
✓ ACT NOW!

Defining good ocean governance



Sustainable ocean use means protecting life below water so it can safeguard the health of our planet, our economies and our communities

Ocean governance requires:



Socio-economic benefits

Investing in MPAs makes economic sense: MPAs with "no-take" regulations in place for 35 years are estimated to deliver economic benefits up to 20 times greater than their initial set up costs

Spillover effects: MPA networks improve the quantity, diversity and, in some cases, the value of the fish caught outside of MPAs, delivering increased revenue for fisheries whose activities make a low environmental impact

Areas protected from extractive human activities and cumulative pressures deliver refuges that support population recovery of marine species

Multi-sector benefits: Clean and protected marine environments delivered by MPA networks boost industries, such as tourism, which flourishes thanks to preserved coastlines and pristine diving sites

MPAs deliver safe havens from direct anthropogenic stressors and alleviate external pressures such as ocean acidification, temperature rise and decreasing oxygen caused by climate change, enabling species to better adapt to a changing environment

Good stewardship: Shared ownership of local MPAs can foster better dialogue and collective approaches to how we use and share our seas, reducing potential for conflict

When an MPA network is designed with a holistic ocean view, its wide-scale protection extends beyond any single MPA boundary

Not one-size-fits all: MPA networks are tailored to local contexts while answering global challenges such as fish stock decline, pollution and climate change

Environmental benefits

MPAs provide spawning, nursery and feeding areas which increase the resilience of marine populations by enhancing the size, quantity and fertility of many species

Over 12% of EU seas are designated for protection, but less than 2% are in fact covered by MPAs with management plans; and of this 2%, only a fraction have measures expected to deliver true conservation outcomes. This renders a vast majority of European MPAs into so-called "Paper Parks" — lines drawn on a map without measurable action on the ground or in the water. Poorly managed MPAs do not provide the intended results, leaving stakeholders with little motivation to set aside further areas for protection. In the worst examples, ineffective MPAs foster conflicts among stakeholders and hinder any possibility to conserve marine ecosystems.

To achieve effective protection of the ocean, this attitude must change. Ambition and leadership from our governments to implement existing legislation and policies, which are fit for purpose, is urgently needed. In the face of climate change and continued unsustainable exploitation of the ocean, the objective to effectively protect at least 30% of marine and coastal areas by 2030 must be reached.

All MPAs should have robust and fully-implemented management plans and the implementation of management plans for these areas must be faster, better controlled, and more inclusive. Individual MPAs must evolve from a species-specific or habitat-specific approach to embrace holistic protection of the ocean. The design and implementation of MPA networks must be integrated within broader approaches to ocean management and conservation, such as Other Effective Area-based Conservation Measures (OECMs), integrated ocean management and ecosystem-based marine spatial planning to support a 100% sustainably managed ocean.

Cumulative impacts of human activities must be taken into account when planning the use of any resource within MPAs, keeping in mind that the primary goal of an MPA network must be conservation and restoration of biodiversity and that areas fully closed to any activity deliver the best results for ocean health.