Two years to make EU seas healthy again

By 2020, just two years from now, under the EU Marine Directive, EU seas must have reached 'Good Environmental Status', meaning that they host clean, healthy and productive marine ecosystems. The Marine Directive came into force in 2008, with the aim of protecting and restoring our marine environment to health.

Ten years on, our seas should be well on the road to recovery, with all of the necessary measures implemented. However, despite some progress, governments across Europe have not taken the comprehensive action needed to achieve the Directive's goal. As a result, our seas continue to suffer from overfishing, pollution and biodiversity loss. This failure was acknowledged by the European Commission last year:

> *'By and large, however, we have not progressed as far as is necessary to fulfil the overall objective of the Directive within its 2020 target date'* (European Commission, June 2017[1]).

However, we, as collective group of concerned NGOs, do not think the battle is lost and with the right actions and significantly more political resolve, we believe we can still reach the Directive's objective in time.

Priority actions to save our seas

The goal of the Marine Directive is to achieve Good Environmental Status (i.e. a clean, healthy and productive marine environment) of EU seas and oceans by 2020. The Directive sets out 11 qualitative descriptors, which can be grouped into three key thematic areas:

- Ending overfishing.
- Halting biodiversity loss.
- Eliminating pollution input to the sea.

The actions that must be prioritised by EU governments in order to meet the Directive's aim and objectives - and thus restore the health of our seas - are outlined below.

[1] European Commission, 'Further implementation of the Marine Strategy Framework Directive', MD2017-1-4, 2017

Eliminate pollution

Six of the 11 descriptors in the Marine Directive relate to pollution, which is unsurprising given the scale of the problem and its impact on EU seas.

- 320 non-indigenous species (Descriptor 2) have been observed in Europe's seas since 2000 and that number is growing. These species are introduced chiefly through shipping[2]. In addition, climate change may provide new opportunities for invasive alien species to proliferate and spread[3].
- Coastal and marine ecosystems are severely degraded due to eutrophication (Descriptor 5) and the resulting algal blooms and oxygen deficiency.
- Almost every marine organism, from the tiniest plankton to whales and polar bears, are contaminated with man-made chemicals (Descriptors 8 and 9), such as those used in industrial processes and common consumer products, as well as pesticides[4].
- An estimated 100,000 tonnes of plastic litter (Descriptor 10) from EU countries ends up in the sea every year, from coastal land areas alone[5]. At least 693 different species have been impacted by marine litter (including fish, birds, turtles and marine mammals), with effects ranging from ingestion and entanglement to bio-accumulation and bio-magnification of toxic substances, as well as the introduction of invasive alien species and damage to benthic habitats and communities.[6]
- Noise pollution (Descriptor 11) is ever-increasing, with pile-driving for offshore wind adding to the noise from shipping, fishing, oil & gas production, seismic testing, dredging and military sonar.

Priority actions to eliminate pollution (Descriptors 2, 5, 8, 9, 10 and 11)

Non-indigenous species: Alien species that become invasive are a key threat to biodiversity and ecosystem health. It is estimated that during the last four centuries invasive alien species have contributed to nearly 40% of animal extinctions with known causes[7]. In addition to fully implementing the new EU Regulation on Invasive Alien Species and the IMO Convention for the Control and Management of Ships' Ballast Water and Sediments, the following key measures should be taken:

- Ratification of the 2004 Ballast Water Convention by all EU Member States.
- Establishment of an early warning system to facilitate rapid identification and early notification of alien species, as well as mapping their spread between and within the European Regional Seas.
- Management actions that do not focus solely on one vector for these invasive alien species but, rather, take into account all vectors. Undertake prevention, eradication, control or management of invasive alien species, taking into account climate change/environmental changes.
- All construction of inland navigation waterways must specifically address and evaluate the risk of creating vectors for alien species.

Eutrophication: Overall, levels of nutrients remain above acceptable limits in the marine environment. Oxygen depletion as a result of nutrient pollution is particularly serious in the Baltic and Black Seas, but is also a problem in the Adriatic and North Seas. The Water Framework Directive, the Nitrates Directive and the Urban Waste Water Treatment Directive, together with the actions and measures agreed in the Regional Sea Conventions, set a framework to address eutrophication immediately and ambitiously. Numerous measures need to be implemented to address this complex issue, as outlined previously by Seas at Risk et al. in the document 'Priorities for MSFD Programmes of Measures'[8]. The likely urgent measures for Member States to introduce are:

- Increase financial support for sustainable agriculture, such as ecological recycling agriculture and organic farming (thus reducing the nutrient surplus by 50% per ha, compared to conventional agriculture).
- Make nutrient soil-mapping, nutrient bookkeeping and nutrient balance calculations at field level a pre-condition for

[2] European Environment Agency, *State of Europe's Seas*, Report No 2/2015, 2015.
[3] European Environment Agency, *The impacts of invasive alien species in Europe*, Report No 16/2012, 2012.
[4] European Environment Agency, *State of Europe's Seas*, Report No 2/2015, 2015.
[5] Jambeck, J.R., et al., 'Plastic waste inputs from land into the ocean', *Science*, Vol.347, No.6223,768–771, 2015.
[6] Gall, S.C., Thompson, R.C., 'The impact of debris on marine life', *Marine Pollution Bulletin*, 92 (1–2), 170-179, 2015.
[7] Secretariat of the Convention on Biological Biodiversity, *Global Biodiversity Outlook 2*, Montreal, 2006.
[8] Seas At Risk et al., *Priorities for MSFD Programmes of Measures*, 2014.

allocating subsidies under EU CAP.
- Introduce mandatory annual nutrient accounting/bookkeeping at farm level, allowing nutrient resources to be saved, and accounting for balanced fertilisation.
- Introduce Best Available Techniques for industrial rearing of cattle, horse, goat, sheep and fur farming, along with industrial poultry and pigs, both in terms of reducing nutrient inputs and greenhouse gas emissions.
- Promote nutrient neutrality in industrial or municipal activities and stimulate divestment from nutrient-intense assets (e.g. industrial agriculture), if no nutrient recycling is applied.

Contaminants: Chemical pollution is one of the main pressures affecting the marine environment. The three main groups of contaminants are trace elements (e.g. copper, lead, etc.), organics (e.g. Persistent Organic Pollutants (POPs, DDT, PCBs, dioxins)), and radionuclides[9]. As with eutrophication, numerous measures need to be implemented, as outlined by Seas at Risk et al. in the document 'Priorities for MSFD Programmes of Measures' [10], including:
- Use the Precautionary Principle for handling any chemical and chemical-based products in society.
- Ensure that the various Directives and International Conventions regulating chemical input to the environment are thoroughly implemented in both coastal areas and the open sea, with regular reviews to ensure compliance. These include the Water Framework Directive and the related Environmental Quality Standards Directive, Food Safety Regulations (for levels of contaminants in seafood), and the Stockholm Convention (on POPs).
- Modernise certain industrial processes in the chemical industry in order to reduce methyl mercury in seafood.
- Ban environmentally harmful antifouling paints on ships and leisure boats.
- By 2025, phase out old two-stroke engines, which release one-third of their fuel unburned into the water. Require the use of alkylate gasoline during the phase-out period.
- Set high standards to reduce emission of contaminants from offshore oil and gas platforms. Apply a 'zero discharge' principle when the production and maintenance waste on-board rigs is collected and shipped for treatment ashore.

Marine litter: Many Member States continue to focus more on PR than policy, such as undertaking coastal clean-ups, which, while welcome, do nothing to tackle the fundamental flaws in our production and consumption patterns[11]. Measures to address this issue should include the following, as a matter of urgency:
- Move to a circular economy with ambitious waste management and recycling policies.
- Offer incentives for better product design, i.e. improving reuse, repair, remanufacturing and recycling.
- Phase out short-lived, single-use plastic items.
- Make better use of economic or market-based instruments, such as plastic bag levies or deposit refund schemes.
- Set-up Extended Producer Responsibility (EPR) schemes, where producers are required to cover the entire waste management cost of their product, including litter clean-up and prevention.
- Ban microplastics from all products that are washed down the drain or directly discharged into waterways or the marine environment.
- Ensure that all facilities handling plastic pellets (nurdles) are regulated, with measures in place to avoid their leakage to the environment. Audit regularly for compliance.

Noise: Marine organisms that are exposed to human-induced sound/noise can be adversely affected both short-term (acute effects) and long-term (permanent or chronic effects). We agree with the Marine Directors[12] that the impact of anthropogenic noise (impulsive sounds and continuous low frequency) in EU waters has not yet been adequately addressed. The measures[13] needed by 2020 to address this include:
- Conduct meaningful impact assessments for noise activities, including a quantitative consideration of cumulative and synergistic impacts.
- Spatially and/or temporally separate noisy activities from sensitive species.
- Create acoustic refuges to safeguard the few remaining quiet areas.
- Promote the use of quiet technologies to reduce noise from commercial and leisure shipping, including the use of sonar and transducer frequencies.
- Offer incentives for the use of quieter technological alternatives to seismic airguns.

[9] Seas At Risk et al., *Joint NGO Guidance Paper on the implementation of the MSFD*, 2012.
[10] Seas At Risk et al., *Priorities for MSFD Programmes of Measures*, 2014.
[11] Seas At Risk, *Tackling overfishing and marine litter – An analysis of Member States' measures under the Marine Directive*, 2017.
[12] European Commission, 'Further implementation of the Marine Strategy Framework Directive', MD2017-1-4, 2017.
[13] Seas At Risk, IFAW, Oceancare, 'NGO comments on paper MD2017-1-4', July 2017.

End overfishing

Correctly implemented, the reformed Common Fisheries Policy (CFP) should have led to sustainable fishing across the EU seas by 2015 or, at the latest, by 2020. However, Fisheries Ministers continue to allow many stocks to be fished above scientifically recommended exploitation levels. In 2017, 41% of the 66 assessed fish stocks in the North East Atlantic were still being fished above Maximum Sustainable Yield exploitation rates (F_{MSY}) while around 90 stocks remained without assessment[14]. In the Mediterranean in 2014, a shocking 91% of assessed stocks were still overfished[15].

Sustainable fishing also means guaranteeing that stocks are maintained in a healthy condition (Descriptor 3.3), i.e. having a varied age class range, often with a relatively high proportion of sexually mature, older and larger individuals. At present, little information is available on the age, size and overall condition of those fish that remain in the water. Urgent action is needed, with Member States, the European Commission and the respective scientific bodies working together.

Priority actions to end overfishing (Descriptor 3)

For all commercially exploited fish and shellfish populations to be within safe biological limits, full implementation of the CFP is essential, in particular:

- Set fishing limits below the maximum sustainable yield exploitation rate (F_{MSY}).
- End discards through the landing obligation.
- Reduce by-catch of non-target species and sexually immature fish through technical, spatial and temporal measures, and quota swaps.
- Establish fish stock recovery areas, such as closures at spawning and nursery grounds.

Other non-CFP-related measures required include:

- Measures on shellfish, recreational fisheries and non-commercial fish species.
- Measures to ensure that the ages and sizes of fish are indicative of a healthy population (Descriptor 3.3).

[14] Scientific, Technical and Economic Committee for Fisheries, '54th Plenary Meeting Report', Luxembourg, 2017.
[15] European Commission, 'Fish stocks in Northeast Atlantic recover, whilst serious overfishing in Mediterranean', Brussels, June 2014.

Halt biodiversity loss

Over 650 marine fish species, over 180 marine bird species, five turtle species and almost 40% of the world's known marine mammals are found in Europe's seas. Of these, however, only 4% have yet achieved the 2020 target of 'Good Environmental Status', with 80% of the species and habitats' assessments categorised as 'unknown'.

While EU seas will soon meet the 10% targeted coverage with Marine Protected Areas (MPAs), this UN Aichi target is far below the scientific recommendation of over 30% *well-managed* MPAs if our seas are to recover and maintain their ecosystems and biodiversity[16]. Most Member States have not met their requirements and are facing fines for failing to complete their MPA networks. A further complication is the weak management of EU MPAs, with the last EEA assessment stating that only 9% of marine habitats and 7% of marine species within MPAs were found to be in 'favourable conservation status'[17], while only 0.5% were fully protected from fishing[18]. This suggests that less than 1% of EU seas are fully protected from the damage caused by human activities.

Priority actions to halt biodiversity loss and ecosystem degradation (Descriptors 1, 4, 6 and 7)

Member States must speed up implementation of their MPA networks by undertaking the following actions:

- Urgently expand the coverage of MPAs in order to reach 30% coverage of EU seas, in line with international scientific advice.
- Ensure that MPAs are well-managed, with all activities that may impact the ecosystem – in particular, fishing – halted and licensed only where an Appropriate Assessment proves that the activity will not damage the site, in line with Article 6 of the Habitats Directive.
- Ensure that MPAs are ecologically coherent and meet the principles of representativity, adequacy and connectivity.

The Marine Directive also requires the protection and restoration of biodiversity outside of MPAs. This includes protecting species, maintaining the integrity of the seafloor and ensuring that foodwebs enable ecological functioning. The following priority actions should be taken to achieve this:

- Take concrete measures to protect the species at the top of the foodweb, as these are critical for a healthy ecosystem (e.g. sharks and rays).
- Ban activities that are particularly damaging to the seabed, such as bottom trawling, in MPAs and near Vulnerable Marine Ecosystems and improve their management everywhere else, including through spatial zoning.
- Ensure that Maritime Spatial Planning takes an ecosystem-based approach in order to ensure that marine habitats and species are protected beyond MPAs, and that human activity takes place only within the limits of ecosystem tolerance. It should also take into account land-sea interactions.
- Activities that could impact on hydrographical conditions and damage habitats, such as tidal barrages or lagoons, should not be permitted.

[16] IUCN, 'Motion 53', World Conservation Congress, 2016.
[17] European Environment Agency, *State of Europe's Seas*, Report No 2/2015, 2015.
[18] European Environment Agency, *Marine protected areas in Europe's seas*, Report No 3/2015, 2015.

ESEC
European Seas Environmental Cooperation

The European Seas Environmental Cooperation (ESEC) is an informal network between the Black Sea NGO Network (BSNN), the Coalition Clean Baltic (CCB), the Mediterranean Information Office for Environment, Culture and Sustainable Development (MIO-ECSDE), and Seas At Risk (SAR), which work for the protection of the marine environment in Europe's regional sea basins: the Baltic, Black and Mediterranean Seas and the North-East Atlantic Ocean.

Black Sea NGO Network (BSNN) is a regional association of NGOs from all Black Sea countries. The BSNN members, currently over 60, are brought together by the common concern for the decreasing environmental quality of the Black Sea and the need for the adoption of democratic values and practices in the Black Sea countries that follow the ideals of sustainability.

Website: http://www.bsnn.org

Coalition Clean Baltic (CCB) is a politically independent, non-profit association, which unites 19 member organizations, with over 850,000 members in all countries around the Baltic Sea. The main goal of CCB is to promote the protection and improvement of the Baltic Sea environment and its natural resources.

Website: http://www.ccb.se

The Mediterranean Information Office for Environment, Culture and Sustainable Development (MIO-ECSDE) is a non-profit Federation of 127 Mediterranean NGOs for Environment and Development. MIO-ECSDE acts as a technical and political platform for the presentation of views and intervention of NGOs in the Mediterranean scene and plays an active role for the protection of the environment and the promotion of the sustainable development of the Mediterranean region and its countries.

Website: www.mio-ecsde.org

Seas At Risk (SAR) is an umbrella organisation of environmental NGOs from across Europe that promotes ambitious policies for marine protection at European and international level. SAR's vision is 'Healthy marine ecosystems whose benefits can be enjoyed now and in the future'.

Website: www.seas-at-risk.org

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