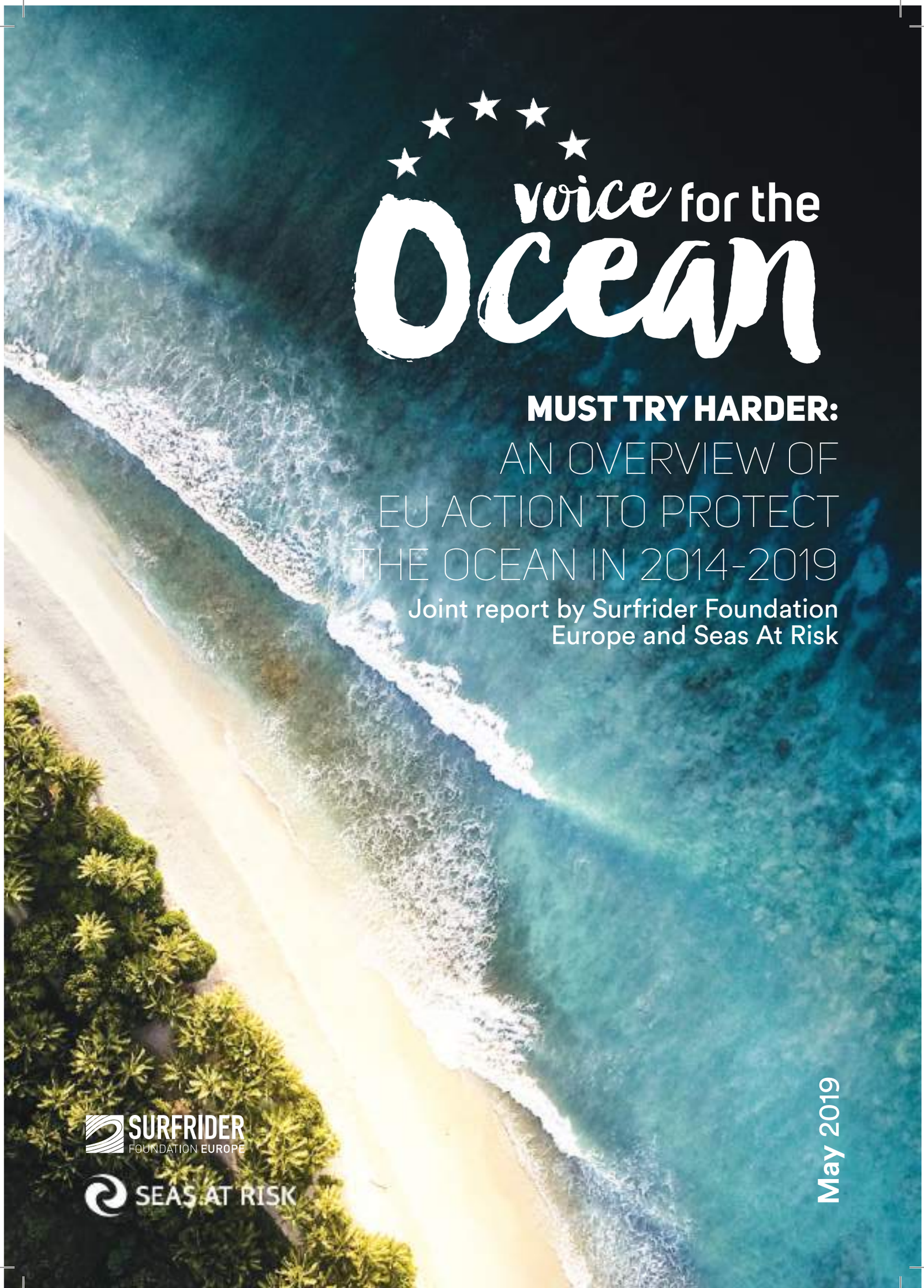

MUST TRY HARDER:

AN OVERVIEW OF EU ACTION TO PROTECT THE OCEAN IN 2014-2019

Joint report by Surfrider Foundation Europe and Seas At Risk

SURFRIDER FOUNDATION EUROPE

SEAS AT RISK

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EXECUTIVE SUMMARY

The sea is home to a significant proportion of Earth's biodiversity. It provides us with food, resources and well-being. As the blue lung of our planet, the ocean is a vital climate regulator. However, these factors also mean that it is the location of numerous human activities, putting unprecedented and unsustainable pressure on the marine environment and dramatically impacting marine biodiversity and ocean resilience. As the world's biggest maritime territory, and with almost half of its population living by the sea, the EU is compelled to set rules protecting marine biodiversity and regulating the activities that take place at sea or which impact the sea.

This report, prepared by Seas At Risk and Surfrider Foundation Europe, in the context of the campaigns *#OurBlueLung* and *Voice for the Ocean*, evaluates the main actions taken by the EU to achieve clean and healthy seas during the past 5 years (2014-2019 mandate). It focuses on four main areas: protecting and restoring nature, tackling marine pollution, limiting the impact of extraction activities, and addressing the climate impact of shipping. In each case, the report assesses the level of ambition of the actions taken and identifies both gaps and opportunities for the EU to step up its efforts in the next mandate.

Credit is undoubtedly due to the EU for its powerful nature laws and for providing a clearer framework for action under the Marine Directive. These regulations have proven to be key tools in protecting the marine natural world. The financial needs of such protection means that the EU should be similarly lauded for its efforts to increase funding for nature protection for the 2021-2027 period.

Yet the failure of EU countries to effectively implement EU legislation – which sees Marine Protected Areas (MPAs) open to harmful activities and the achievement of good environmental status of EU seas and ocean by 2020 an unlikely prospect – significantly undermines EU efforts to preserve and restore marine biodiversity.

The EU has taken a strong stance on marine pollution. Significant progress on waste prevention from ships and land-based activities, coupled with the adoption of the European Plastics Strategy and the Directives on Single-Use Plastics and Port Reception Facilities.

It represents a solid starting point from which to tackle the global marine waste problem. Further work will be needed to ensure the actual implementation of this groundbreaking legislation. With regard to underwater noise, despite the requirements of the Marine Directive and a degree of progress at international level, concrete actions by EU countries remain limited and unambitious. Chemical pollution is perhaps the most stark among pollution issues. Under the current mandate, the EU has failed to adopt an adequate or holistic strategy to achieve a non-toxic environment and phase out the release of harmful substances into the environment.

Those activities designed to extract the sea's riches, such as

- **Fisheries**
- **Aquaculture**
- **Offshore drilling**
- **deep-sea mining**

present significant concerns.

While there have been some efforts to limit the impacts of fishing on marine ecosystems – notably through the adoption of the 2016 Deep Sea Regulation aiming to protect deep-sea ecosystems against the impacts of fishing – EU countries have been too slow in setting sustainable fishing limits to reduce the pressure of overfishing. Alarmingly, the EU Parliament recently decided to reintroduce harmful subsidies for the construction of new fishing vessels, despite previously outlawing such monies for fuelling overcapacity and overfishing. The EU has not yet adopted a moratorium on offshore drilling and commercial deep-sea mining in vulnerable places, such as MPAs, despite a strong call from the European Parliament. Finally, the last year has seen positive steps towards sustainable shipping. The International Maritime Organization, at the behest of the EU and its Member States, adopted a strategy to reduce shipping emissions by at least half by 2050 compared to 2008, as well as initiating work to ban the use of heavy fuel oil in the Arctic.

It is more urgent than ever that EU countries step up and fully implement EU policies and legislation. Ocean protection needs an ambitious holistic approach: with nearly 7000 EU citizens supporting this stance in the 2018-2019 ***Voice for the Ocean*** **survey, it is time for European politicians to follow suit.**

INTRODUCTION

Millions of us live beside the sea and enjoy all that it has to offer, while others dream of endless horizons and voyages to far-flung places. Marine depths are home to majestic whales, curious fish, sea mountains and trenches, as well as vast expanses of algae and kelp forests. The sea provides us with an immense wealth of food, resources and pure enjoyment. Most of us already know that it is home to a significant part of our planet's biodiversity and plays a major role in climate regulation. But while we are all aware of the importance of trees and forests in oxygen creation, most of us remain unaware that, in fact, it is the ocean's tiniest organisms that provide us with more than half of the oxygen we breathe. The ocean is our planet's 'blue lung'.

Long unexplored – and even feared – the ocean is now the location of numerous activities. This puts unprecedented and unsustainable pressure on the marine environment: ocean resources, including fish, are overexploited; plastic pollution has reached even the most remote areas; chemicals and fertilisers spilled into rivers and soil end up poisoning algae, fish, and even ourselves; marine biodiversity dropped by almost 40% in the last 40 years; and climate change and acidification are exacerbating the decline in ocean health.

With the world's biggest maritime territory, and almost half of EU citizens living on the coastline, the European Union (EU) has a leading role to play in protecting the ocean, in Europe and all over the world. The EU regulates many of the activities that take place at sea, with the aim of ensuring that they are conducted sustainably. Unfortunately, however, this aim often remains unfulfilled.

Since

2008,

the EU has had one of the most advanced laws in the world to protect the marine environment,

THE MARINE STRATEGY FRAMEWORK DIRECTIVE

(or Marine Directive[1]).

Here, European governments committed to do everything in their power to achieve good environmental status for marine waters by 2020 and thus preserve and restore marine biodiversity.

This included ending overfishing, halting chemical, agricultural and plastic pollution, phasing out underwater noise pollution and creating Marine Protected Areas (MPAs).

But with little more than a year to go, these goals remain far outside our grasp.

EU countries have yet to take sufficient action to protect marine ecosystems from the many threats they face and it seems clear that they will not achieve the central objective of the Directive by 2020.

In 2014, the EU adopted a law on planning activities at sea. The Maritime Spatial Planning Directive[2] requires governments to ensure that the various human activities at sea (e.g. fisheries, aquaculture, energy, shipping) do not conflict with one another and that they are carried out sustainably, within the limits of marine ecosystems. Governments should consider the cumulative impacts of all activities at sea and manage them such that EU seas and ocean are clean and healthy by 2020 (as required by the Marine Directive).

This report provides an overview of the main actions taken during the European mandate (2014-2019) on major issues related to ocean protection. It assesses the progress made by the EU in achieving clean and healthy seas, together with the areas that remain outstanding. This allows for a comparison between the focus of the action taken to date with the ocean priorities identified by EU citizens in the 2018 *Voice For the Ocean consultation*. It will be used in the context of the campaigns, *Voice For The Ocean* and *#OurBlueLung*, to remind citizens why the EU matters when it comes to ocean protection.

PROTECTING AND
RESTORING NATURE

The EU has strong nature laws

European seas cover over

5.7 M.

square kilometres, which is more than its entire land mass.

Our seas are home to thousands of animals and plants, which live in habitats as diverse as rocky reefs and kelp forests, seagrass beds and deep coral reefs, to name just a few. The EU has been committed to protecting nature since adopting the Birds Directive in 1979, a commitment that was further strengthened in 1992 with the adoption of the Habitats Directive. Together, these Nature Directives represent the most ambitious and large-scale initiative ever undertaken to conserve Europe's natural heritage, including all types of habitats and species, on land and sea.

In 2014, the Commission launched a detailed evaluation of the Nature Directives, the Fitness Check.

The results of the evaluation, published in 2016, demonstrated that the laws remain fit for purpose and are of crucial importance in preserving nature in the EU.

These results were supported by more than half a million concerned citizens, each of whom called on the European Commission to save Europe's nature laws, in a public consultation[3].

Making Marine Protected Areas (MPAs) work

Following the Fitness Check, the Commission released an Action Plan in 2017, featuring steps to make the Nature Directives work more effectively[4]. This pushed EU countries to designate more MPAs, in both coastal and offshore waters.

Designated MPAs now cover

9%

of the EU maritime area, closely approaching international marine conservation targets[5].

In the Action Plan, the Commission highlighted the need to better protect existing MPAs against the impact of harmful activities. Despite the fact that the European Parliament called for a moratorium on oil and gas exploration and drilling in or near MPAs in 2018[6], offshore drilling continues to take place today in a number of MPAs across Europe. Although clearly against the requirements of the Habitats Directive, many EU countries have failed to adopt the national regulations necessary to ban this harmful activity in protected areas.

Industrial fishing is another destructive activity widespread in MPAs all over Europe. The 2014 reform of the Common Fisheries Policy (CFP) now enables EU countries to limit fishing activities inside MPAs once they reach an agreement with neighbouring countries that also fish in this area. Between 2014 and 2019, a number of EU countries began the process of adopting new regulations, in coordination with their neighbours, to better manage and restrict certain types of fishing activities inside their MPAs. These negotiations remain heavily influenced by the private interests of fishing organisations, although the voices of civil society organisations determined to protect EU seas are gaining ground among EU policy makers[7].

Good environmental status of EU seas can be defined but will not be achieved by 2020

Preserving marine biodiversity is not only about creating MPAs.

It is equally important to reduce the pressures on marine ecosystems from human activities at sea and on land :

- **Fisheries**
- **Shipping**
- **Industrial production**
- **Intensive farming**

This is what the Marine Directive aims to do. Its objective – to achieve Good Environmental Status of EU seas by 2020 – is centred on the preservation and restoration of marine nature.

In 2010, the EU adopted a set of guidelines and criteria to help Member States to define what 'Good Environmental Status' of our seas should look like. This first set of guidelines was complex and impractical, thus it was revised, in cooperation with EU countries and stakeholders.

In 2017, a new 'Decision on Good Environmental Status[8]' was adopted, whose clear text increases the chances of actually reaching Good Environmental Status and ensuring a similar level of protection across all four European seas. For instance, the new Decision asks all EU countries to agree on the amount of the seabed that should be free from destruction, or how abundant populations of turtles should be, for our seas to be considered to have 'Good Environmental Status'. The Decision also requires EU countries to consider the cumulative impact of all kinds of threats to marine ecosystems.

Despite the revision of the Decision, EU countries have yet to take sufficient action to protect marine biodiversity from such threats by 2020, meaning that its success remains limited as yet. This saw the European Commission acknowledge, in July 2018, that 'achieving good environmental status by 2020 across all European marine regions remains unlikely[9]'.

Financing nature protection

Protecting marine biodiversity requires money, for example the infrastructure and staff costs relating to MPAs. The LIFE programme, created in 1992, is the EU's funding instrument for the environment and climate action. It is used to fund nature conservation projects in the areas of biodiversity, habitat and species protection, as well as climate change mitigation projects (e.g. renewable energies, farming, land use, etc.)

The current funding period 2014-2020 has a budget of

€ 3.4 B.

In May 2018, the European Commission proposed increasing the total budget of the LIFE programme to

€ 5.45 B.

for the 2021-2027 period.

Another potentially important fund for marine conservation is the European Maritime and Fisheries Fund (EMFF), which supports the development of EU maritime activities, including fisheries, aquaculture and maritime spatial planning, and also aims to facilitate the implementation of the Marine Directive. To date, however, Member States have spent very little of the €6.4 billion envelope on measures to protect nature and prevent harmful impacts from these activities on marine ecosystems. The vote on the next EMFF budget for the 2021-2027 period has provided an opportunity for NGOs and nature-friendly Member of the European Parliament (MEPs) to ensure that at least 25% of the Fund will be dedicated to marine nature protection activities.

Finally, the EU's research programme, Horizon 2020, offers opportunities to deepen our understanding of the ocean's functioning, raise awareness of the need for healthy seas and find solutions for more sustainable use of marine resources. Projects on marine litter, shipping and ocean literacy have helped to increase our understanding of human impacts on the ocean and thus how we can protect it more effectively for future generations.

Summary
Protecting and restoring nature

Safeguarding EU nature laws	✓
Making MPAs work	~
Defining 'Good Environmental Status of EU seas'	✓
Achieving Good Environmental Status of EU marine biodiversity by 2020	✗
Increasing the EU budget for nature protection	✓

TACKLING

MARINE POLLUTION

The ocean is seriously affected by several types of pollution generated by human activities. Visible pollution (oil spill, plastic debris) represents just the tip of the iceberg, with most pollution happening underwater, or invisible to the human eye.

Pollution affects marine life and ecosystems deeply, as well as the resilience of our oceans. Much of this pollution is land-based, such as most plastic pollution, while underwater noise and oil leaks are related to sea-based human activities. Beyond the importance of a clean and resilient ocean for climate regulation and a healthy and livable planet, this pollution can also affect humans' health as we seek to enjoy the sea or consume seafood products.

PLASTIC POLLUTION

Plastic pollution is one of the major threats to the ocean, with global plastic production expected to double by 2035 and quadruple by 2050[10].

Globally, an estimated

5-13 M.

tonnes of plastic end up the ocean every year[11], with plastic pollution affecting even the most remote areas on the planet, from the Arctic ice pack to the ocean seabed.

More than

800

species[12] are affected by plastic pollution, through ingestion, injury or entanglement.

Every year, 100,000 mammals and more than 1 million birds die as a result of plastic pollution. There are also significant evidence-based concerns about the potential impact of plastic, microplastics (under 5 mm) and nanoplastics (under 100nm) on human health, considering the ubiquitous presence of microplastics in the air, water, soil and food, and the fact that microplastics and nanoplastics attract and carry chemical substances.

EU countries are responsible for some 100,000 tonnes of plastic waste in the sea every year, from coastal land areas alone[13]. Further plastic pollution comes from inland sources and items lost or discarded at sea by commercial ships or fishing vessels. Single-use plastics (i.e. plastics that are meant to be used only once before being discarded, such as most plastic packaging) are a significant contributor to plastic pollution (49% of beach litter in 2016[14]) and are among the most common items collected during beach litter surveys[15]. Abandoned or lost fishing gear (27% of beach litter in 2016[16]) also constitutes a large proportion of plastic pollution, as fishing gear primarily contains plastic.

Tackling marine litter was identified as one of the priorities in achieving clean and healthy seas, under the 2008 Marine Directive. Since then, data and awareness of plastic pollution and its impacts on both the environment and human health have grown considerably. The last five years have seen the EU adopt several measures to curb plastic pollution.

Make reduction at source a priority

In the context of its transition to a circular economy, the EU recently adopted its Plastics Strategy, a comprehensive action plan aiming to rethink how plastic is produced, used and disposed of in Europe, while reducing plastic leakage into the environment.

The Strategy emphasises the 3Rs, 'Reduce, Reuse, Recycle',

and the European Parliament, when consulted on this Plastics Strategy, highlighted the importance of focusing action on reduction of plastic waste at source[17].

Despite repeated discussions on this issue, the EU has yet to set an EU-wide quantitative reduction target for marine plastic pollution. Several measures adopted in recent years, however, aim to reduce plastic pollution significantly, such as the 2015 Plastic Bag Directive and the 2019 Single-Use Plastics Directive.

Tackle pollution from single-use plastic

In 2015, the EU adopted rules requiring EU countries to reduce the consumption of single-use plastic bags, one of the items most commonly used and found on beaches and at sea, despite the ready availability of reusable alternatives (such as tote bags). The EU went on to adopt stringent rules on the items most commonly found on beaches in Europe, in the 2019 Directive on the reduction of the impact of certain plastic products on the environment[18].

Those new rules include an EU-wide ban (from mid-2021) on single-use plastic straws, cutlery, plates, balloons, sticks, and cups and food containers in extended polystyrene.

It also foresees a ban on oxo-degradable plastics, whose disintegration into small plastic particles is particularly harmful to the environment.

Tackle pollution from microplastics

The EU has also begun to tackle pollution from microplastics. It is, for example, in the process of restricting microplastic ingredients that are intentionally added to products such as cosmetics (e.g. for exfoliating and scrubbing properties) and detergents. It is also looking at ways to tackle plastic pollution from pre-production plastic pellets (also called nurdles or mermaid tears (i.e. pellets, flakes and powders that are used to produce any plastic item), from the microfibres of synthetic clothing, and from tyre wear.

Concrete measures on these major sources of microplastics are yet to be determined.

Ensure eco-design of products

In its Plastics Strategy, the EU committed to having all packaging in the EU reusable or recyclable by 2030. Promoting reusable alternatives will go a long way to reducing marine pollution, given that most items found on EU beaches are single-use plastic. To date, the EU has focused more on recycling than on reuse or refill. However, reusable alternatives and alternative delivery systems are growing rapidly throughout Europe, showing that there are attractive and workable alternative solutions to our 'throwaway' society.

Much work needs to be done if plastic products are to become fully recyclable and actually recycled,

as many polymers are not yet recyclable or recycled, and there are no economic incentives for producers to use recycled rather than virgin plastic.

There is an urgent need to harmonise the definition and labeling of bio-based (from plant and animals) plastics and so-called biodegradable plastics.

Such harmonisation will end consumer confusion about these plastics, their 'green' credentials and means of disposal. At the moment, 'biodegradable' plastics are often compostable only in specific industrial facilities and need to be collected separately. It is important to remember that bio-based and/or compostable single-use plastics are not a solution to marine plastic pollution[19], but, rather, the focus should be on switching to reusable alternatives.

Finally, the EU has begun to look at the chemical substances found in plastic and plastic waste, some of whose additives can be harmful to human health and the environment.

WASTE FROM SHIPS

While much of the plastic in the ocean comes from land, sea-based activities are also a major source of plastic pollution.

With a lifecycle of only two years, on average, lost or discarded fishing gear is particularly problematic and fishing gear containing plastics accounts for

27%

of marine litter items found on European beaches.

A large proportion of fishing gear is lost or abandoned, resulting in 'ghost fishing', whereby nets and other gear continue to catch fish and other marine wildlife, impacting marine biodiversity and further affecting already depleted fish stocks.
In its legislation on single-use plastics (see previous section), the EU has simultaneously taken action to tackle pollution from fishing. Under new rules, EU countries must improve the collection of end-of-life fishing gear, as well as putting in place producer responsibility schemes, to drive a shift towards eco-design and circularity of fishing gear

The EU recently adopted a '100% indirect fee system' under the revised Port Reception Facilities Directive[20].

From now on, ships will have to pay a fixed fee to the port, irrespective of how much waste (including end-of-life fishing gear) they are bringing to port. This system removes the incentive to illegally dump garbage at sea in order to reduce costs at ports and should be effective in reducing the volume of lost and discarded fishing gear found at sea or on beaches. Equally significant is the fact that ships will now be allowed to deliver passively fished waste to ports (i.e. waste collected in nets during normal fishing operations) at no additional cost – all the more important given the systematic bycatch of waste during fishing operations.

Another important source of pollution from sea-based activities is the loss of containers during maritime transport.

In 2016,

130 M.

containers were transported[21] around the world

(one ship alone can carry up to 20,000 containers[22]). Containers can be lost at sea as a result of accidents, poor weather conditions, or failure to respect security and safety rules. Taking into account recent events (such as the MSC Zoé and Grande America accidents),

it is estimated that over

16 000

have been lost at sea between 1994 and March 2019[23].

Of these, less than

3%

have been recovered,

with the remainder continuing to release all kinds of hazardous substances, chemicals and manufactured products into the sea, and increasing the risk of collision and accidents.

To date, this issue has not been addressed by either the EU or international organisations. The sinking of the Grande America (and its containers) along the French coast in March 2019 is yet another reminder to decision makers of the need to adopt targeted measures to prevent the loss of containers. As of 15 April 2019, close to 20,000 citizens have called for new rules at EU and international level to prevent container loss[24].

CHEMICAL POLLUTION

Although largely invisible, chemical pollution nevertheless presents a major threat to our oceans. Chemicals are present in all marine ecosystems, including in the seabed, marine animals and water, while their organic persistence means that most cannot be removed.

Chemicals are everywhere in the sea because they are everywhere in our lives. The production of chemicals is growing significantly, with many of the products we make and use

with many of the products we make and use – whether metal, plastics, paper, glass – being manufactured or treated with chemicals.

What we eat is also often treated with chemical-containing pesticides. These chemicals escape into the air, soil, water and, eventually, the ocean. There, they poison the seabed, algae and animals. Chemical pollution of the ocean can also impact human health, particularly when we engage in marine sports or consume seafood products[25]. In the Baltic region, for instance, there are warnings against eating salmon, given the high concentrations of heavy metals in their fatty tissues.

Fighting chemical pollution in the sea is first and foremost about controlling the production of chemicals on land and taking preventative action to prevent hazardous chemicals from entering the aquatic environment.

The Regulation for Registration, Evaluation and Authorisation of CHemicals (REACH Regulation) is the main EU legal framework[26] regulating chemicals in production processes. It requires producers using chemicals to provide information on those chemicals, and aims to phase-out the use of chemical substances that are hazardous to human health and the environment.

The REACH Regulation is often considered the most advanced regulation on chemicals in the world.

Yet, toxic chemicals are still used and released in our environment, and there remains an ongoing lack of traceability and transparency concerning chemicals in final products, or information on the consequences of exposure to these articles and chemicals. The European Union has thus far failed to take a holistic approach to the issue of chemical production or to adopt an EU strategy for a non-toxic environment, despite the European Commission declaring that it would do so by 2018[27].

Since 2000, the Water Framework Directive (or Water Directive) requires EU countries to monitor concentrations of hazardous chemicals in all freshwater bodies (such as lakes and rivers) and to take all measures necessary to ensure that concentrations do not exceed acceptable thresholds.

If implemented well, the Water Directive should help to keep water free of chemical pollution from all types of sources (industry, households, pesticides).

It should also help to minimise nutrient levels from excess fertilisers used in agriculture. Too many nutrients in fresh and seawater leads to the process of eutrophication, which creates 'dead zones' where wildlife cannot survive because of a lack of oxygen in the water. The Marine Directive similarly requires EU countries to control the concentrations of nutrients and hazardous chemicals in seawater, seabeds and marine animals, and to take the necessary measures to ensure that concentrations do not exceed determined thresholds.

The Water Directive thus plays a central role in keeping our seas healthy and toxin-free. It is currently under revision,

with over

375 000

citizens calling on the Commission not to weaken it[28].

The outcome of the revision process in the next European mandate will be critical to the state of our rivers and seas.

UNDERWATER NOISE

Human activities in the ocean cause a lot of noise, deeply affecting marine life, including whales, dolphins, and porpoises. Underwater, the noise travels faster and further than on land, thus the nuisance can spread over thousands of kilometres.

For example, every ship that crosses the sea emits a deafening roar, while seismic surveys for oil and gas exploration cause blasts every 10 seconds for weeks or months to detect fossil fuels under the sea bed.

The consequences of man-made noise can be severe, presenting a constant challenge to marine mammals, which rely on their hearing to move, interact, mate and hunt.

As a global problem, and given that many of the activities responsible for noise pollution take place in the high seas (i.e. water beyond any country's jurisdiction), the issue of noise pollution should be addressed at national, regional and international level.

The EU and its Member States can play an important role in putting this issue on the agenda of relevant international organisations, such as the International Maritime Organization (IMO).

In January 2018, the European Parliament called on the European Commission and the Member States

'to take all suitable measures to facilitate the adoption of international regulations to limit noise from industrial activities such as shipping and seismic surveys[29]'.

In addition, the EU co-sponsored a Resolution[30] on underwater noise, adopted in September 2018 by the International Whaling Commission (IWC). This Resolution asks the IWC to develop a list of priority actions to address the impacts of underwater noise on cetaceans, and calls for action and cooperation in other international forums, like the IMO.

Yet, action remains limited and largely unsatisfactory. Despite being required by the Marine Directive, a majority of EU countries are set to fail to protect marine wildlife from the impacts of intense underwater noise levels by 2020[31].

Summary
Tackling marine pollution

Make prevention of marine pollution at source a priority	✓
Adopt rules to reduce pollution from single-use plastics	✓
Take measures to reduce pollution from microplastics	~
Take measures to address waste from ships	✓
Adopt an EU Strategy for a non-toxic environment	✗
Take measures to reduce underwater noise	~

LIMITING THE IMPACTS OF **EXTRACTION ACTIVITIES**

Humans have always exploited the sea, most notably for food. Activities at sea have grown significantly in recent decades (since 1950s and 60s), as humans were able to go faster, further, deeper in the ocean, and globalisation grew. The EU regulates most of those activities with the aim of ensuring that they are conducted sustainably and limiting potential impacts on the marine environment. This report focuses on a selection of activities with significant potential adverse effects on the marine environment and contributing unprecedented pressure on our seas and oceans.

FISHERIES AND AQUACULTURE

Is there really plenty of fish in the sea?

Not anymore, as we are currently consuming fish faster than they can reproduce. This situation is not only harmful to the fish themselves, but also to the health of the ocean and people whose livelihood depends on it. Around the world, fish catch has increased twice as fast as our population[32].

The Mediterranean is the most overfished sea in the world, with some

87%

of stocks overexploited.

Some fishing techniques are particularly damaging, especially those that are not sufficiently selective. For example, bottom-trawling destroys reefs, removes seagrass and wipes out entire ecosystems on the seabed[33].

Other non-selective fishing techniques catch sharks, turtles, seabirds, dolphins and other mammals, as well as many other fish that will not be eaten by humans.

Each fish species is part of an ecosystem with natural predators and prey, which means that the devastation of one population can destabilise an entire ecosystem.

The outcomes of the decisions made at EU level on fisheries by the European Commission, Parliament and countries over the past five years are ambiguous.

While efforts to limit the impacts of fishing on marine ecosystems, in particular in the deep sea, have seen some progress, at the same time we have been far too slow in ensuring that the volumes of fish taken from the sea are sufficiently low to allow fish populations to replenish themselves and thrive and to maintain balanced ecosystems.

Limiting the amount of fish taken from the sea...

Eliminating overfishing by

2020

at the latest is the overarching objective of the EU Common Fisheries Policy (CFP),

which requires EU countries to set fishing limits (Total Allowable Catch, or TACs) in order to restore or maintain fish populations above sustainable levels (i.e. levels that allow maximum catches over a longer time while the populations still manage to replenish themselves and remain stable). Over the past five years, EU countries have increased the numbers of fish stocks for which sustainable fishing limits have been set but this has been a slow process,

with some

69%

of fish stocks in European waters still overfished in 2017[34].

Multi-annual plans are the main legal tool for implementing the objectives of the CFP in the different sea basins of the EU and should ensure that fishing is carried out in an environmentally sustainable way. Management plans for the Baltic, the North Sea, Western EU Waters and the Western Mediterranean were adopted by the European Parliament and EU countries between 2016 and 2019. Additional plans are still going through the legislative process.

To date, the majority of the plans adopted have been disappointing, in that they introduced counterproductive flexibility, allowing EU countries to sidestep their legal obligation to end overfishing by

2020.

They have also failed to regulate fishing methods to ensure reduced environmental impacts, as they were supposed to do. As such, they do not address the critical threat presented by overfishing to the survival of all marine ecosystems.

Finally, in April 2019, the European Parliament – in one of its final votes – took the backwards step of reintroducing subsidies for the construction of new vessels, despite this previously proving to fuel fishing overcapacity and lead to overfishing.

These types of harmful subsidies were banned in the EU 15 years ago and their reintroduction in 2019 is viewed as a major setback by NGOs and the scientific community.

...and from the deep sea

No place is really safe in the ocean, with even some areas of the deep sea heavily trawled. As a result, some deep-sea species, such as the roundnose grenadier, are seriously endangered.

In 2016, the European Parliament and the European Council adopted a new Deep Sea Regulation, which includes a ban on bottom-trawling below 800 metres and closes areas to bottom-trawling below 400 metres where vulnerable marine ecosystems are known to be present or likely to occur[35].

In parallel, however, EU countries have continued to allow the overfishing of several deep-sea species and implementation of the Deep Sea Regulation is behind schedule.

Avoiding deadly bycatch of marine animals

Avoiding the accidental catch of fish and vulnerable animals that were not the intended target (such as dolphins, seabirds and turtles) is a very important component of the EU's fisheries policy.

2 legal instruments play an important role in this battle:

The landing obligation & the 'Technical Conservation Measures' Regulation.

The landing obligation requires fishermen to bring back to land and declare all of their fish catch, included untargeted catch, rather than discarding them overboard like before[36]. It also prohibits undersized fish from being sold for human consumption. By forcing fishermen to declare all of their catch, the landing obligation, which came fully into effect

in January

2019,

aims to push fishermen to invest in more selective gear that will help them to catch only the targeted fish.

To date though, the landing obligation is not yet effective, due to loopholes in the legislation and lack of control and enforcement.

The 'Technical Conservation Measures' Regulation is a set of rules for where, when and how fishing may take place. It regulates the impact of fishing on marine ecosystems, e.g. the type of gear that can be used in certain areas or at certain times of the year, to ensure that vulnerable animals such as dolphins or seabirds are not caught in fishing nets.

The development of this complex but fundamental regulation merges more than

30

existing laws aimed at minimising the impacts of fishing on ecosystems.

Representing two years of policy work, the regulation is expected to be adopted before the end of the current legislative mandate[37]. It is complemented by the adoption in 2017 of the Data Collection Framework regulation, which provides a new basis for the fisheries data to be collected and should help make better informed decisions on fisheries and aquaculture policies, especially when it comes to the impacts on marine ecosystems.

Aquaculture: giving a voice to stakeholders

The EU has primarily a guidance role in aquaculture, working closely with Member States to promote the sustainable development of the sector. In 2016, the Commission published its guidance document on the application of the Water and Marine Directives in relation to aquaculture, as well as by-laws for the application of the Animal Health Law.

In 2017, the Scientific Advice Mechanism published its recommendations on food production from the ocean[38].

The report states that we need to eat more farmed seafood and follows the same narrative of growth and job production seen in many such reports on aquaculture, with the impacts of aquaculture on the marine environment given only secondary notice.

It is a little publicised fact that fish farming contributes heavily to overfishing, as most farmed fish species are fed with fish caught in the wild[39].

In 2018, the European Parliament published an Own Initiative Report on aquaculture, later adopted as a Resolution[40], which follows a similar narrative thread about the need to invest in aquaculture development and, again, barely mentioning the environmental impact of aquaculture on marine ecosystems.

However, the establishment of the Aquaculture Advisory Council (AAC) in November of

2016

represents a positive development.

This stakeholder-led organisation is designed to provide the European Commission and the Member States with recommendations and advice on issues related to the sustainable development of the sector. NGO priorities in the AAC include the link between the heavy dependence of the sector on fish feed and overfishing, the continued use of unknown quantities of medicines and chemicals, and the wider ecosystem effects of aquaculture.

OIL AND GAS OFFSHORE DRILLING

Offshore exploration and exploitation of oil and gas is very destructive to the marine environment. Such effects are not solely limited to occasional accidents with disastrous consequences, such as the 2010 Deepwater Horizon. Offshore drilling leads to smaller but frequent leakage of oil and gas into the environment and it also contributes to noise pollution (see section on underwater noise), impacting both marine life and ecosystems.

Following the Deepwater Horizon catastrophe, the EU adopted new rules on offshore drilling (Offshore Safety Directive[41]), with the aim of ensuring technical and financial capacity and liability of operators.

Unfortunately, those rules are not stringent enough to protect the ocean.

In 2018, the European Parliament called for a moratorium on oil and gas exploration and drilling in or near MPAs.

It also highlighted that all waters are vulnerable to the offshore drilling of fossil fuels[42]. The EU should use the upcoming revision of the Offshore Safety Directive as an opportunity to strengthen the rules and consider such a moratorium.

Beyond impacts on the marine environment, the continuation of oil and gas offshore drilling runs contrary to the objectives of the Paris Agreement to keep the global temperature rise well below 2° above pre-industrial levels.

Data show that if this objective is to be met,

80%

of the known reserves of oil, gas and coal must be left underground[43].

DEEP-SEA MINING

The growing global demand for metals (linked to accelerated urbanisation, use of electronic devices and renewable energy technologies) is rapidly increasing the commercial interest in deep-sea mining. Security of supply is also an important factor: many land reserves for metals are in countries such as China and the Democratic Republic of the Congo, where there are serious international concerns about political stability, human rights and environmental standards.

Deep-sea mining operations have not yet started on a commercial basis, but more than

1.5 M.

km² of international waters are now under exploration contracts with the International Seabed Authority (ISA).

Potential deep-sea mining sites are situated between

1,000 & 6,000

metres below the ocean surface, often in highly vulnerable ecosystems and biodiversity hotspots.

Scientists warn that deep-sea mining will lead to significant and irreversible biodiversity loss. Thus, NGOs advocate for sustainable alternatives to deep-sea mining, such as a reduction in the demand for mineral resources through a circular economy, a transition to smart energy and mobility systems, and structural/behavioural changes in consumption patterns and lifestyles.

At the EU level, deep-sea mining is a priority sector within the blue growth strategy[44], and is also part of the European Innovation Partnerships on Raw Materials[45]. The EU and its Member States are all members of ISA. The European Commission is funding the development of the technology used for deep-sea mining, with a number of EU countries actively promoting the sector. Seven EU countries (Belgium, France, Germany, the UK, Poland, the Czech Republic and Bulgaria) are sponsoring exploration contracts in international waters, many of which will be carried out by large EU companies. Portugal is even considering deep-sea mining on its continental shelf, near the Azores.

In recent years, the EU has sent mixed messages about deep-sea mining, with some actors acknowledging the potential for devastating environmental impacts and questioning the need for this activity to take place at all, while others continue to promote it as a solution to the world's growing demand for metals.

In its 2017 Communication on International Ocean Governance, the Commission announced its intention to develop guidance on deep-sea mining, without providing any further detail on what this might mean. Its announcement met with significant pushback from the European Parliament, which, in 2018, adopted a Resolution on international ocean governance[46], in which it stressed the importance of applying the precautionary principle to the emerging deep-sea mining sector. The Parliament called on the Commission and Member States to support

an international moratorium

on commercial deep-sea mining exploitation licences until such time as the effects of deep-sea mining on the marine environment, biodiversity and human activities at sea have been sufficiently studied and researched, and all possible risks are understood.

Summary

Limiting the impact of extraction activities

Achieving sustainable fisheries	✕
Protecting marine ecosystems, including in the deep-sea, from fishing impacts	~
Limiting the impacts of aquaculture on marine ecosystems	~
Adopting measures to prevent damage from offshore drilling	~
Preventing irremediable damage to deep-sea ecosystems from seabed mining	✕

THE OCEAN
IN CLIMATE POLICY

The interactions between the ocean, climate and biodiversity are numerous and crucial, although still little understood. It is clear that a healthy ocean is a prerequisite for a healthy climate and planet. As the main net supplier of oxygen to the world's atmosphere, the ocean acts as the 'blue lung' of our planet. It produces half of our oxygen and plays a key role in climate regulation, with more than 25% of anthropogenic CO^2 emissions absorbed by the ocean's plants and animals. Activities that harm our seas and oceans will have a negative impact on our ability to tackle climate change, and runway climate change will be no less devastating for marine life than for human life.

Addressing the climate impact of shipping

International shipping is the quintessential maritime industry and is a large and growing contributor to the climate crisis.

Shipping emissions are currently responsible for around 3% of all emissions.

They are predicted to grow by anything from 50 to 250% by 2050[47].

Emissions on this scale are sufficient to undermine all other efforts at keeping warming below the Paris Agreement goal of 1.5°C, yet, incredibly, there was no explicit mention of shipping in the Agreement.

Shipping is a global industry and is (for the most part) regulated at international level by the IMO, a United Nations body. All EU Member States are also members of the IMO and party to its agreements, and usually coordinate their positions in advance of IMO negotiations. For decades, the IMO has failed to take the appropriate measures to reduce the impact of shipping on climate. However, in April 2018, two significant steps were taken in the move towards sustainable shipping.

Firstly, after a big push by some of the most vulnerable small island developing nations and EU Member States, the IMO agreed a strategy to decarbonise the shipping sector, specifically to ensure that it reduces its emissions by 'at least 50% by 2050 compared to 2008[48]'. The recent report of the Intergovernmental Panel on Climate Change (IPCC) on the impacts of a 1.5°C rise in global temperature[49] has made it abundantly clear that to keep warming below 1.5° (the threshold at which dangerous effects will be felt) the Agreement's 'at least 50%' must be taken to mean '100% by 2050'. The challenge for the IMO is to introduce the measures that will make this happen, with all due haste. The EU and its Member States should drive the adoption of such measures, focusing on immediate measures to reduce ship speeds (the most powerful method of reducing emissions in the short-term) and the roll-out of zero-emission vessels and fuels (that will allow decarbonisation in the medium to long-term). In this context, facilitating the deployment of alternative energies to heavy fuel, such as wind energy, and ensuring a drastic reduction of consumption of fossil energies, are a priority.

The IMO also recently agreed to start work on a ban on the use of heavy fuel oil (HFO) – the world's dirtiest fuel – in the Arctic. Already banned in Antarctic waters, HFO emits more harmful pollutants than alternative fuels, and would be impossible to clean-up in case of a spill in cold Arctic waters.

Importantly, switching from HFO to cleaner fuels will reduce emissions of black carbon, the second most important shipping climate pollutant.

In parallel with this work by the IMO, the EU has also developed its regional shipping policy, establishing an EU system for monitoring, reporting and verification of CO^2 emissions from maritime transport[50]. This system does not set reduction targets, however, instead being intended to align with international targets agreed at IMO level.

Summary
The Ocean in climate policy

Limiting the contribution of shipping to climate change

Banning the use of the world's dirtiest fuel in the Arctic

CONCLUSION

This report presents a brief overview of EU-level actions in the past five years on marine-related policies. It demonstrates the critical role of the EU in the protection and restoration of our seas and oceans. The 2014-2019 mandate saw the EU taking some key decisions for our ocean's health, in particular in relation to tackling plastic pollution. In other areas, however, such as combating overfishing or chemical pollution, progress has been much slower.

This report is divided into sections that reflect the way the EU works on different topics, emphasising the links between different activities and policies, where relevant.

Indeed, a specific activity can be the source of different types of pollution.

For instance, shipping emits

CO_2

emissions that contribute to climate change while simultaneously being a major source of noise and pollution in the ocean.

Similarly, a specific area is often impacted by several activities.

For instance, certain coastal areas in Europe are

OVERFISHED,

crossed by major shipping lanes and polluted by chemical, plastic and agricultural pollution from land.

Yet, the cumulative impacts of those various pressures on marine life and ecosystems are seldom taken into account by EU countries in managing and planning their maritime space. While the Maritime Spatial Planning Directive requires EU countries to take an ecosystem-based approach to the management of maritime activities,

most EU countries still plan sector-by-sector without taking into account the limits of marine ecosystems and the need to achieve Good Environmental Status of EU seas by

2020

(as required by the Marine Directive).

In general, a holistic approach to ocean protection is lacking, with EU institutions and countries addressing the threats to the marine environment one by one rather than taking a global view of the impact of our lifestyles on the ocean, particularly its resilience in the face of future climate breakdown.

Crucially, the failure of national governments to implement ambitious EU policies and legislation is one of the main reasons why the EU is not yet fully delivering on its promises to protect the right of future generations to a clean and healthy marine environment.

The lack of political commitment on the part of EU countries sees each one of them set to fail to achieve clean and healthy seas by 2020, as required by the Marine Directive. An ambitious holistic approach to ocean protection is of central importance and should be a priority for the next European mandate. The whole EU – the European Commission, the European Parliament and the EU Council, made up of all EU countries – has a very important role to play in safeguarding the future of our seas and oceans.

Let's give a Voice to the Ocean in Europe and save Our Blue Lung!

AUTHORS

SURFRIDER FOUNDATION EUROPE

SURFRIDER FOUNDATION EUROPE

Surfrider Foundation Europeis a European not-for-profit organisation dedicated to the protection and enhancement of Europe's lakes, rivers, ocean, waves and the coastline. Founded in 1990 in Europe (Biarritz) by a handful of local surfers, today it gathers over 13,000 members, around forty local chapters and more than 150,000 supporters across Europe. The movement first began in 1984, in Malibu, California (USA) and today, the Surfrider Foundation is a global network of regional associations and local chapters present on all continents (America, Europe, Japan and Australia, etc.).

SEAS AT RISK

SEAS AT RISK

Seas at risk is an umbrella organisation of environmental NGOs from across Europe that promotes ambitious policies for marine protection at European and international level. With our long history of successful advocacy work and a staff with over 75 years' combined experience in seas and ocean advocacy, Seas At Risk has an important level of insight and understanding of the problems facing the marine environment, as well as the ideas, individuals and institutions that are key to solving them. Seas At Risk has 34 member organisations in 17 countries, representing millions of EU citizens that care deeply about the oceans.

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