CENTER for INTERNATIONAL ENVIRONMENTAL LAW

European Union Ocean Act

Tackling the Triple Planetary Crisis

Center for International Environmental Law (CIEL)
Position Paper - June 2026

Summary

For the European Union (EU) Ocean Act to ensure the health, resilience, and productivity of the ocean, it must advance solutions to the global threats posed by fossil fuel production and use. The fossil economy — and the speculative technologies that sustain it — are driving the triple planetary crisis: biodiversity loss, climate change, and pollution. The fossil economy encompasses oil and gas activity, the full lifecycle of plastics, chemical use, and the promotion of false climate solutions, such as geoengineering. This paper proposes recommendations for strengthening the EU Ocean Act in line with the best available science, existing EU and member state legal obligations, the European Commission's own climate and environmental commitments, and the need to protect the ocean for generations to come.

Offshore oil and gas: Globally, offshore oil and gas activities are rapidly expanding. Due to the impacts of routine operations and the widespread risk of accidents, these oil and gas activities endanger the world's ocean, as well as the communities, ecosystems, and climate systems that depend on it. To protect the ocean and comply with climate goals, the EU Ocean Act must prohibit expansion of offshore oil and gas, set targets to phase out existing offshore operations in EU marine waters, and incentivize reductions in demand for fossil fuels.

Speculative technologies: The ocean is increasingly targeted for the deployment of highly speculative technologies that purport to address or mask symptoms of the climate crisis. False solutions, such as offshore carbon injection, marine geoengineering, and ammonia as an alternative shipping fuel, are increasingly entering mainstream climate discourse and policy despite a lack of evidence on their effectiveness and well-documented concerns about their potential environmental and social impacts.

Transport and injection of carbon dioxide (CO_2) for offshore carbon capture and storage (CCS) pose threats to marine health in the short and long term via leakage and the technology's uncertain ability to deliver emission cuts. In addition to ensuring full lifecycle assessments of emissions, the EU Ocean Act should also reaffirm States' obligations to conduct comprehensive environmental, social, and human rights impact assessments for carbon injection projects without exemption.

Deployment of marine geoengineering, including carbon dioxide removals and solar radiation manipulation from or in the marine environment, is already effectively prohibited under the Convention on Biological Diversity and the London Convention/London Protocol. The EU Ocean Act should comply with these precautionary decisions by excluding marine geoengineering technologies from any measures to meet the EU climate targets, including the Carbon Removal Certification Framework (CRCF), prohibiting field experiments and deployment of geoengineering in EU marine waters, withholding public support (including funding for such technologies), and upholding the precautionary approach in international fora.

The growing push for ammonia as a marine fuel poses serious challenges, including continued reliance on fossil fuels (as long as the production still relies on fossil gas), toxicity to humans and marine life, potential emissions of nitrous oxide (a potent greenhouse gas), air pollution, and significant safety risks in storage and handling. In the absence of clear evidence that ammonia — particularly fossil-derived variants — can deliver safe, equitable, and ecologically-sound outcomes, the EU should refrain from endorsing its widespread use.

Plastic pollution: The volume and impact of plastic in the ocean triggered the current process to develop a legally binding treaty to end plastic pollution. Since the beginning of the negotiations, science has demonstrated that ending plastic pollution requires controlling and reducing plastic production. Plastic production is also the fossil fuel industry's lifeline, as it continues to drive growth in oil demand. The EU Ocean Act must set targets to control and reduce both plastic production and chemicals of concern in order to prevent these materials from locking in long-term fossil fuel extraction and compromising EU legislation.

Chemical pollution: Most chemical pollution ends up in the ocean where it causes severe impacts on the ocean's health, resilience, and productivity. The ocean also serves as a major route for chemical circulation and exposure for both humans and wildlife. If it is to ensure a productive and resilient ocean, the EU Ocean Act must strengthen chemical and pesticide regulations to phase out all hazardous substances.

I. Introduction

The ocean's health faces severe risks due to fossil fuel activities (from offshore oil and gas[1] to chemical and plastic production and use[2] and false climate solutions (such as offshore carbon storage[3] and geoengineering.[4] These activities not only prolong dependence on fossil fuels and delay their phaseout but also introduce new risks to people and the environment. The effects of

fossil fuel activity, including climate change and plastic and chemical pollution, create long-lasting harm to Indigenous Peoples and coastal communities,[5] as well as to the ocean.[6]

Reliance on fossil fuel extraction and the consumption of materials such as plastics can lead to economic losses.[7] The environmental damage from pollution and climate change carries an economic burden, such as increased health costs for populations exposed to related disasters.[8] Fossil fuel dependence can also trap countries in debt[9] and expose them to price volatility[10] and high transition costs[11]— as seen with recent oil shocks and the current geopolitical conflicts over oil access and transport routes.[12]

Continued dependence on fossil fuels is incompatible with European Union (EU) laws. For example, fossil fuel extraction and consumption undermine the achievement of EU climate, nature, and ocean-related targets, including the attainment of Good Environmental Status (GES) under the Marine Strategy Framework Directive (MSFD).[13] Offshore oil and gas activities degrade marine ecosystems through pollution, habitat destruction, and greenhouse gas (GHG) emissions, directly contradicting EU law, including the ecosystem-based approach required by the Maritime Spatial Planning Directive (MSPD).[14] The resulting environmental harm disproportionately affects coastal communities whose livelihoods, food security, and cultural practices depend on healthy marine ecosystems. Oil spills and related impacts can severely disrupt fisheries, local economies, and subsistence systems, thereby infringing on human rights, including the right to a clean, healthy, and sustainable environment.[15] Fully adhering to EU climate laws, nature laws, maritime spatial planning, and the MSFD, therefore, necessitates the exclusion of fossil fuel activities from the ocean to ensure coherent ocean governance.

The European Ocean Pact

The European Ocean Pact, adopted in 2025, concretized an important step toward excluding fossil fuel activities by stating, "Ocean warming and acidification is mainly caused by carbon emissions from burning fossil fuels...[and] producing renewable energy offshore helps reduce greenhouse gas emissions ...and reduces Europe's dependence on fossil fuels, including extracted from the seabed, in view of the risks on the marine ecosystems including the seabed, and thereby strengthens EU energy security and sovereignty in line with EU climate neutrality objective."[16] The holistic approach of the EU Ocean Act will need to ensure that the phaseout of fossil fuel activities in the ocean can be implemented and enforced through a legal framework consistent with all relevant climate, nature, and ocean-related targets and obligations.

The EU Ocean Pact also highlighted commitment to the precautionary principle in relation to "emerging technologies that intervene in marine environments for climate change mitigation, such as marine geoengineering and carbon dioxide removal technologies"[17] – a welcome reflection of the existing precautionary international governance framework. The EU Ocean Act must build on the Pact by legislating to prevent geoengineering experiments from taking place in EU marine waters[18] and ensure marine carbon dioxide removal approaches are excluded from the EU Carbon Removal Certification Framework (CRCF).

I. Phasing Out Offshore Oil and Gas

From seismic surveys[19] and extraction[20] to transport[21] and non-decommissioning/abandonment,[22] offshore oil and gas activities threaten marine ecosystems, the climate, and the rights and livelihoods of coastal communities that depend on a healthy ocean.[23] Globally, offshore oil and gas activities are rapidly expanding; in 2024, 85 percent of new discoveries by volume were offshore.[24] In terms of ocean-based climate mitigation options, halting offshore oil and gas activities, combined with phasing out current global production, offers the greatest emissions-reduction potential — averting an estimated 5.3 gigatons of CO_2 annually by 2050.[25]

Ending Offshore Production

The relatively small scale of offshore oil and gas production in the EU should facilitate its phaseout. In 2023, offshore production in the EU, which came from just ten EU countries, accounted for only 1.74 percent of the total EU energy consumption. In contrast, the EU met 28.5 percent of its 2023 energy consumption from renewable energy and biofuels production.[26] Despite the EU's climate, nature, and ocean targets, and the minimal contribution that EU offshore production makes to the EU's energy demand, some EU Member States are still licensing new offshore oil and gas exploration[27] and production.[28] The EU must commit to ending the production of offshore oil and gas within EU marine waters as part of a broader transition away from fossil fuels, recognizing the significant environmental risks these activities pose to marine ecosystems. Ending global dependency on fossil fuels must begin with halting new exploration and production activities, followed by a pathway to phase out existing production — including within the EU.

Regulating Offshore Decommissioning

In 2023, Member States reported 313 oil and gas installations in EU marine waters.[29] Even after offshore oil and gas wells have been depleted or shut off, the infrastructure often continues to harm the marine environment and the climate. Abandoned, unplugged, or poorly plugged wells and aging offshore platforms are proliferating in offshore oil and gas hotspots like the North Sea,[30] and are leaking enormous amounts of planet-warming gases into the atmosphere and toxins into the ocean.[31] Oil and gas companies around the world often avoid paying decommissioning and remediation costs through loopholes in bankruptcy law, tax codes, and contracts.[32] These strategies allow the companies to shift the expense — which can reach hundreds of millions of dollars per deepwater lease[33] — and the burden of cleanup to host governments and taxpayers.[34] In the EU, there is a need for better accountability for both offshore operators and public regulators to ensure that decommissioning liabilities are enforced. Companies should not be permitted to drill if they cannot provide financial assurances for cleanup costs or if they have delinquent decommissioning obligations.

Reducing Demand

In order to meet climate targets, the EU also needs to rapidly reduce its oil and gas demand, not only for fuels but also for petrochemicals.[35] In 2023, oil (37.6 percent) and gas (20.4 percent) continued to be the most significant energy sources for the EU, which imported around 58 percent of its energy.[36] In addition, the EU must address its impact on ocean basins outside of its marine waters by going beyond domestic demand reduction and taking responsibility for the global footprint of its fossil fuel consumption. This means ensuring that imports and overseas activities linked to EU markets comply with strict environmental and human rights standards, preventing the outsourcing of ecological damage and social harm to other regions.

Protecting Human Rights

United Nations (UN) Special Rapporteurs on human rights have repeatedly described the negative environmental and social impacts of offshore oil and gas activities on Indigenous Peoples and local communities.[37] EU companies must also be held accountable for providing reparations and fair compensation to communities and ecosystems adversely affected by their offshore fossil fuel activities that take place in waters and on coasts both within and outside of the EU.

Safeguarding Coastal Livelihoods

Offshore oil and gas activities pose a threat to the livelihoods of small-scale fisheries and Indigenous Peoples.[38] In the EU, in 2023, there were more than 60,000 fishers.[39] Globally, nearly 30 million coastal Indigenous people rely on ocean fisheries for food.[40] One study found that seismic air gun blasting, used to explore fossil fuel deposits in the ocean floor, reduced catch rates of commercial fish species by an average of 50 percent near the blast area. Other impacts on fish distribution and abundance were observed within an area of more than 2,000 square miles around the blast site.[41] While oil extraction promises revenue, an economic valuation analysis in Belize demonstrated that the projected gains from offshore oil development in Belize are lower than the long-term economic benefits of protecting the ocean for fisheries and ecotourism.[42] Oil revenues both decline over time and threaten other sustainable ocean sectors that support essential local livelihoods and human rights.

II. Halting False Solutions

The ocean is increasingly targeted for the development of highly speculative technologies that purport to address or mask symptoms of the climate crisis. False solutions, such as CCS, marine geoengineering, or alternative shipping fuels (e.g., ammonia), are increasingly embedded and promoted in mainstream climate discourse and policy despite limited evidence of their effectiveness (as explained below).[43]

Carbon Capture and Storage

While proposed as a mitigation solution, CCS has a long history of failure: 78 percent of large-scale CCS projects were canceled or delayed,[44] while close to 90 percent of proposed CCS capacity in the power sector was never built.[45] In reality, reliance on CCS to 'manage' emissions — rather than phasing out fossil fuel production — risks increasing emissions and extending the use of fossil fuels, placing further stress on marine ecosystems. Offshore CO_2 storage projects risk prolonging the use of existing fossil fuel infrastructure and providing cover for new infrastructure, for example, gas power projects in Scotland[46] and England,[47] and oil sand operations in Canada.[48] Many of the proposed offshore CCS projects in Europe are for storage "hubs," which would pool CO_2 from multiple sources.[49] Impurities found in these industrial CO_2 streams may cause pipeline corrosion, leading to leaks or blowouts.[50] Furthermore, many offshore CO_2 storage operations are proposed in depleted offshore oil fields, even though legacy oil and gas wells are known to present the single greatest risk of CO_2 leakage at offshore storage sites.[51] The EU Ocean Act should therefore take a precautionary approach to carbon storage projects and at least require full lifecycle assessments of scope 1, 2, and 3 emissions.

Offshore CCS additionally threatens to undermine the stability of fisheries as a result of harms caused by possible CO_2 leakage.[52] One study that simulated CO_2 leaks in the Norwegian continental shelf found that dissolved CO_2 causes seawater to become more acidic, which could damage marine ecosystems in the vicinity of the leak.[53] More acidic seawater is especially harmful for calcareous (shell-forming) organisms such as corals, shellfish, and specific groups of phytoplankton.[54] The EU Ocean Act should reaffirm states' obligations to conduct comprehensive environmental, social, and human rights impact assessments for carbon injection projects without exemption.

Marine Geoengineering

The ocean is also increasingly being targeted for a range of marine geoengineering activities — including CO_2 removals and solar radiation modification — despite the fact that these activities are characterized by deep uncertainties about their effectiveness and well-documented concerns about their potential environmental, social, and geopolitical impacts.[55] Four times as many marine CO_2 removal field experiments were proposed globally between 2019 and 2023 as compared to the previous five-year period.[56] The EU must uphold the decisions of the CBD on geoengineering[57] and oppose the promotion of marine geoengineering in other international fora.

While marine geoengineering approaches vary, what they have in common is the vast physical and temporal scale of intervention required to have a meaningful impact on the climate. Ocean alkalinity enhancement, for example, would require utilizing at least 10 percent of the ocean's surface, while ocean fertilization would use between 10 and up to 20 percent for the removal of around one gigaton (Gt) of CO_2.[58] Direct ocean capture would require processing upwards of 9,000 km^3 of water per Gt removal at a conservative estimate,[59] while seaweed cultivation for biomass sinking could require the equivalent of a 100 m belt around 63 percent of the world's coastline for

0.1 Gt removal.[60] Solar geoengineering deployment is modeled over decades to centuries, and ocean-based techniques such as Marine Cloud Brightening (MCB) could require continuous pumping of 45,000 liters of seawater per second into the air.[61]

Marine geoengineering therefore proposes large-scale intervention in delicate ocean ecosystems that are already severely stressed by over-exploitation, pollution, and climate change — with potentially grave consequences for communities, ocean biodiversity, food chains, fisheries, and even the ocean's natural capacity to sequester carbon.[62] Impacts include unpredictable and potentially irreversible damage to marine ecosystems if deployed at scale, undermining the base of marine food chains, affecting the more than 3 billion people whose livelihoods depend on marine resources, and causing cultural and economic losses.[63] Impacts would also not be confined to deployment sites: physical, ecological, and social consequences would extend across borders and regions. The EU must prohibit open-water field experiments and deployment of marine geoengineering in EU marine waters.

It is deeply concerning that despite these risks, and the restrictive international governance context (see below) — not to mention the inherent barriers to robustly monitoring and verifying any theoretical removals — the EU is currently considering including two marine geoengineering approaches (Direct Ocean Capture and Ocean Alkalinity Enhancement) in the CRCF.[64] The EU Ocean Act must exclude marine geoengineering technologies from being pursued through EU instruments, such as the Carbon Removal Certification Framework.

Ammonia

Ammonia is the key ingredient in nitrogen fertilizers, which are among the chief sources of nitrogen pollution. This pollution contributes to eutrophication in aquatic ecosystems and poses significant risk to biodiversity and public health.[65] The impacts of eutrophication can be widespread and severe, causing coastal dead zones, algal blooms, and biodiversity loss. Eutrophication also contributes to rising water treatment costs when polluted water bodies are deemed unsafe for drinking water.[66] As of 2019, 81 percent of EU marine waters were reported as eutrophic.[67] There is a pressing need to reduce the amount of nitrogen entering inland and coastal waters across the EU — above all, by reducing the use of synthetic ammonia-based fertilizers.

Ammonia has also been proposed as a maritime fuel because it does not contain carbon and can be burned as a "zero-carbon" fuel. However, its application raises serious health, climate, and environmental concerns, including multifaceted ecological hazards associated with aquatic spills.[68]

Since close to 100 percent of the ammonia in use today is made from fossil fuels, both as feedstock and for energy, current production offers no climate advantage for shipping. Only production methods based on renewable energies can bring climate benefits.[69] However, combusting ammonia can produce nitrous oxide (N_2O) emissions, a gas 273 times more potent than CO_2 in terms of global warming,[70] which could nullify any GHG mitigation potential.[71]

Ammonia is a serious threat to aquatic organisms with high toxicity to fish and aquatic invertebrates.[72] The toxic effects of an ammonia spill may extend far from the location of the spill and can create large areas of water column contamination if discharged under the water surface.[73] In addition to environmental impacts, the toxicity of ammonia also poses challenges for those working with it or in close proximity to it. Clustered concentrations of ammonia in the air are especially toxic for ammonia distributors and end users, including seafarers.[74] In the absence of clear evidence that ammonia — particularly fossil-derived variants — can deliver safe, equitable, and ecologically sound outcomes, the EU should refrain from endorsing its widespread use.

III. Tackling Marine Pollution

The EU Ocean Act must address plastic and chemical pollution, as rising plastic production — tied to fossil fuel production[75] — and the accumulation of hazardous substances in marine environments pose serious threats to ocean health and resilience,[76] and to human and ecosystem well-being. Plastic production is projected to drive nearly 50 percent of oil demand growth by 2050.[77]

Pollution from plastics, chemicals, and pesticides derived from fossil fuels threatens not only biodiversity but also the health and livelihoods of communities, while further disrupting global ecosystems.[78] Research found more than 16,000 chemicals used or present in plastics, with over 4,200 considered "of concern" and more than 10,000 lacking hazard information,[79] showing huge regulatory gaps and implications for the ocean. Every day, a cocktail of chemical releases, as well as the unrelenting tidal wave of wastes, particularly plastic waste, micro- and nanoplastics, enter our ocean and waterways with severe demonstrated impacts.[80]

The issue of plastic pollution and its impacts on the ocean is also linked to substantial health-related costs. For instance, scientists estimated that the attributable disease burden and cost due to plastic chemicals — such as per- and polyfluoroalkyl substances (PFAS, also known as "forever chemicals"), polybrominated diphenyl ethers (PBDEs), and phthalates — accounted for 1.22 percent of the US's gross domestic product in 2018.[81]

Exposure to plastic and its chemicals impacts ecosystems and human health.[82] These pollutants include endocrine disruptors and persistent organic pollutants (POPs) linked to health issues such as diabetes, infertility, and hormone-related cancers.[83] To address the risks of combined 'toxic-cocktail' exposures, the European Commission should apply the precautionary principle within the EU Ocean Act.[84] Such an approach should include banning hazardous chemicals and replacing them with safer alternatives, eliminating unnecessary uses/demand, and ensuring access to information on the petrochemical compounds in plastic materials, products, and processes (both intentionally and non-intentionally added).

IV. Legal Basis for Phasing Out Fossil Fuels, Including Petrochemicals, and Preventing False Solutions

International Law

States have obligations under international law to protect the ocean from the drivers and impacts of climate change. This has been affirmed by the International Tribunal for the Law of the Sea (ITLOS) Advisory Opinion on climate change,[85] which clarifies that States are obligated to take all measures necessary to prevent, reduce, and control marine pollution (including GHG emissions), and to adopt a precautionary approach in addressing such pollution. Specifically, with regard to risky, speculative, and unproven technological responses to the climate crisis, ITLOS cautions that marine geoengineering would be contrary to the UN Convention on the Law of the Sea (UNCLOS) if it has the consequence of introducing pollutants to the marine environment or transforming one type of pollution into another.[86]

States also have climate-related legal obligations under multiple sources of international law to phase out fossil fuels.[87] As clarified by the International Court of Justice (ICJ) Climate Advisory Opinion,[88] States have an obligation to "use all means at [their] disposal" to prevent climate harm and protect human rights from climate impacts by regulating the conduct known to drive climate change, which indisputably encompasses fossil fuel production and use.[89] In fact, the ICJ's Advisory Opinion emphasizes that the failure of a State to protect the climate system from GHG emissions due to fossil fuel production, consumption, licensing, and subsidies "may constitute an internationally wrongful act which is attributable to that state,"[90] triggering legal consequences.

As both the ICJ and ITLOS affirmed, States must apply a stringent standard of due diligence in addressing climate change.[91] This requires, at a minimum, assessing the GHG emissions of a proposed industrial activity across the State's supply chain.[92] In the context of fossil fuel activity, this should include emissions generated when the produced oil and gas are combusted or otherwise used as intended.

The European Court of Human Rights has also reaffirmed that States must conduct environmental impact assessments (EIAs) that account for the damaging effects of downstream GHG emissions from the extraction and subsequent combustion of petroleum (i.e., "scope 3" emissions).[93] Therefore, regulating the GHG emissions driving climate change must begin with the activities that are the primary source of those emissions: fossil fuel production, consumption, licensing, and subsidies.

In addition to being potentially violative of UNCLOS,[94] marine geoengineering is subject to the longstanding, and repeatedly reaffirmed, *de facto* moratorium on geoengineering deployment under the CBD.[95] The London Convention/London Protocol (LC/LP), which regulates pollution and dumping at sea, has prohibited the deployment of ocean fertilization. It is also currently considering regulations on an additional four techniques, which contracting parties have found

have the potential to cause deleterious effects that are widespread, long-lasting, or severe.[96] Crucially, and in line with the CBD moratorium, the LC/LP assessment framework for legitimate scientific research excludes projects that involve financial or economic gain — such as the sale of carbon credits[97] — which should be a key factor in excluding geoengineering projects from the CRCF. The ICJ has affirmed that States should interpret their obligations under conventional and customary international law harmoniously and should consider their obligations under not only the climate treaties, but also other international environmental treaties, when taking climate action.[98]

Moreover, ITLOS underscores that States must adopt a precautionary approach in addressing marine pollution, meaning that reliance on high-risk geoengineering techniques, particularly when safer, proven mitigation alternatives exist, could place States in breach of their legal obligations under the CBD.[99] The ICJ similarly affirmed that States should act in line with the precautionary principle.[100] This does not mean deploying or relying on technologies or measures whose ability to prevent harm is uncertain or that introduce new risks of serious or irreversible harm. Rather, it means prioritizing proven approaches that reduce the risk of harm by addressing the root cause of climate change: fossil fuel production and use.

EU Law

Continuing present levels of fossil fuel activities, let alone expanding them, is fundamentally incompatible with the EU's environmental and climate objectives and must be addressed decisively within the EU Ocean Act. The EU Climate Law,[101] which enshrines a binding target of climate neutrality by 2050 and at least a 55 percent reduction in GHG emissions by 2030, cannot be met while continuing to expand or sustain offshore oil and gas production.[102] Similarly, the EU's nature laws, including the Birds Directive,[103] Habitat Directive,[104] and the Nature Restoration Regulation,[105] which set binding targets to protect species, conserve habitats, and restore degraded ecosystems, cannot be fulfilled alongside fossil fuel activities that drive biodiversity loss and ecosystem degradation, including through climate change.[106]

In addition, the MSFD requires Member States to achieve Good Environmental Status (GES) across their marine waters, including through descriptors on biodiversity (D1), seafloor integrity (D6), contaminants (D8), and underwater noise (D11). Ongoing fossil fuel exploration and production directly undermine these objectives by impacting zooplankton,[107] introducing pollutants,[108] and generating noise,[109] making the achievement of GES unattainable without a phaseout of such activities.

The MSPD refers explicitly to the ecosystem-based approach[110] outlined in the MSFD, which requires that human activities at sea be managed within ecological limits by prioritizing the health, resilience, and functioning of marine ecosystems. The continued allocation of space to fossil fuel infrastructure conflicts with this approach. This allocation entrenches harmful resource uses that degrade ecosystems and constrain other sustainable activities needed to achieve long-term ocean resilience.

Certain directives set conditions for offshore oil and gas operations. For example, the Hydrocarbons Directive[111] ensures non-discriminatory authorization for oil and gas exploration and production licenses. The Directive for the safety of offshore oil and gas operations[112] establishes minimum requirements for preventing major accidents in offshore oil and gas operations, including oil spills. These directives, however, do not explicitly restrict offshore oil and gas activities on the basis of climate and environmental impacts or obligations. The EU Ocean Act can fill that gap, especially in ensuring that targets are set and aligned with environmental and climate law, as well as international obligations.

Finally, regulations covering harmful substances, such as the EU's Registration, Evaluation, Authorization and Restriction of Chemicals (REACH),[113] should ensure a high level of protection of human health and the environment against harmful substances. Protecting the ocean from toxics requires better implementation of REACH and a series of targeted amendments, such as polymer registration and mixture assessment factor(s) for the chemical safety assessment of substances.

Recommendations

Integrating Ocean Targets into the EU Ocean Act

It is essential to integrate all ocean-related targets into the EU Ocean Act language in order to effectively and urgently address the triple planetary crisis. States' obligations to tackle climate change, together with the harmful impacts of offshore oil and gas activities and the growing scale of plastic and chemical pollution, require a coherent, ecosystem-based approach that prioritizes reducing both the supply of and demand for fossil fuels and fossil fuel-derived products.

The EU Ocean Act must, therefore, be framed as a law that reinforces existing marine, climate, health, and environmental commitments and obligations and aligns them in a coherent legal structure, setting legally binding targets for ocean health and regeneration across timeframes (e.g., 2030, 2040, 2050). Within this framework, the EU Ocean Act should explicitly require the phaseout of the most destructive marine activities, including offshore oil and gas exploration and drilling, and the elimination of harmful subsidies that perpetuate fossil fuel dependence. By doing so, the EU Ocean Act will integrate essential fossil-fuel phaseout measures into the broader regulatory architecture for ocean governance.

- The EU should adopt an immediate ban on new offshore oil and gas exploration and licensing in the marine waters of Member States, including in coastal waters and overseas territories, setting a clear pathway to phase out existing fossil fuel activities and prevent further expansion in marine areas.
- Phaseout plans must prioritize the closure of operations in ecologically sensitive areas, as well as in regions critical for climate stability and the protection of human rights. This will ensure a just and equitable transition for affected communities.

- The EU must mandate upfront financial guarantees from operators to fully cover decommissioning, environmental restoration, and cleanup costs of any offshore oil and gas activity, and must disqualify operators with delinquent cleanup obligations from acquiring new offshore leases. To prevent companies from transferring mature assets to under-capitalized entities in order to avoid decommissioning liabilities, the EU must establish a trailing liability regime. Under this regime, former owners of offshore oil and gas assets may still be held liable for decommissioning costs if subsequent owners cannot meet these obligations.
- The EU should strengthen and enforce the requirement to conduct comprehensive EIAs for any oil and gas activity that includes Scope 3 emissions or cumulative environmental and human rights impacts. This requirement should also apply to associated activities, such as the transport of fossil fuels, including liquefied natural gas (LNG) shipping. The findings of such EIAs should then be acted upon in line with international prevention obligations and the precautionary principle (see next section).

Applying the Precautionary Principle

The EU must prevent high-risk activities from moving ahead, including marine geoengineering and CCS. Specifically, the EU Ocean Act should include a precautionary approach to marine geoengineering and urge the EU to uphold this principle across international fora.

- The EU must exclude marine geoengineering technologies from any measures to meet the EU climate targets, such as the Carbon Removal Certification Framework.
- The EU must prohibit open-water field experiments and deployment of marine geoengineering in EU marine waters.
- The EU must uphold the decisions of the CBD on geoengineering and oppose the promotion of marine geoengineering in other international fora.
- The EU must withhold public support, including funding for marine geoengineering research and development, and offshore CCS projects.
- The EU must ensure full lifecycle assessments of emissions, conduct comprehensive environmental, social, and human rights impact assessments for CCS projects and infrastructure without exemption, and uphold the precautionary approach in international fora.

Furthermore, in the absence of clear evidence that ammonia — particularly fossil-derived variants — can deliver safe, equitable, and ecologically-sound outcomes, the EU should refrain from endorsing its widespread use in the EU Ocean Act, and:

- Avoid policy incentives, subsidies, or regulatory support for fossil-based ammonia pathways.
- Ensure that lifecycle emissions accounting is robust, transparent, and precautionary, including methane and nitrous oxide emissions from well to wake.
- Prioritize measures to reduce overall shipping demand and improve energy efficiency and uptake of direct electrification.
- Act swiftly to prevent ongoing pollution arising from the production and use of synthetic chemicals, especially nitrogen fertilizers, which, together with manure, are the main culprits of eutrophication in the EU.[114]

Reducing the Impact of the EU on the World's Ocean

As a major global economic actor, the EU's consumption, investment, and regulatory choices have far-reaching impacts on ocean ecosystems well beyond its own waters. The EU Ocean Act should therefore ensure that the EU not only addresses domestic marine pressures but also reduces its global ocean footprint by aligning its policies, trade, and supply chains with the protection of marine ecosystems, the respect for human rights, and the rapid phaseout of fossil fuels worldwide.

- The EU should strengthen the use of ocean governance frameworks and institutions to regulate offshore fossil fuel activities and enforce a coordinated and legally robust phaseout.
- The EU should ensure that plastic production is reduced, including through support for a robust global plastics treaty.
- The EU should control, phase out, and share information on hazardous substances, in particular by strengthening the existing chemicals and waste conventions.
- The EU must ensure that EU companies provide reparations and fair compensation to communities and ecosystems affected by their offshore fossil fuel activities, both within and outside of EU waters.

Endnotes

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Acknowledgments

EU Ocean Act: Tackling the Triple Planetary Crisis was authored by Bruna Campos, Mary Church, Rachel Kennerley, Giulia Carlini, and Lisa Tostado. It was edited by Nikki Reisch, Upasana Khatri, Erika Lennon, Nathalie Eddy, Lili Fuhr, Lucienne Noel, and Lindsay Fenlock.

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