

# MAIN CONTRIBUTIONS



**EUROCEAN'S**  
YOUTH

# DEEP SEA MINING

## **Clear positioning and regulatory action of the EU towards deep-sea mining :**

*Problem : We know that deep-sea ecosystems are critical life support systems and are highly vulnerable. We also know that they play a role in climate regulation and carbon sequestration. But there are limits to our knowledge: we do not have a full scientific understanding of how deep-sea ecosystems function, nor how they would be affected by exploitative activities such as deep-sea mining: "A synthesis of the peer-reviewed literature and consultations with deep-seabed mining stakeholders revealed that, despite an increase in deep-sea research, there are few categories of publicly available scientific knowledge comprehensive enough to enable evidence-based decision-making regarding environmental management, including whether to proceed with mining in regions where exploration contracts have been granted by the International Seabed Authority" (Amon et al. 2022a).*

*Without a detailed understanding of the role deep-sea ecosystems play in the carbon cycle, or how they would be affected by exploitative activities, we risk creating a new environmental disaster in areas of the planet that have been – until now -- relatively untouched by human activity.*

## RECOMMENDATIONS:

- We recommend that the EU advocates for and implements a moratorium on deep-sea mining at the international level; and bans deep-sea mining in EU waters as well as products derived from deep-sea mining.
- We suggest developing a campaign to raise awareness among the general public about the dangers of deep-sea mining.
- We recommend the utmost precaution when authorising deep-sea exploration campaigns and deep-sea surveys, as they can potentially lead to exploitation. The EU should create strong regulation and criteria to ensure the legitimate and scientific purpose/interest of these surveys.

Indeed, the EU needs to go further than the commitment it made in its communication on international ocean governance about deep-sea mining published in June which states: "Prohibit deep-sea mining until scientific gaps are properly filled, no harmful effects arise from mining and the marine environment is effectively protected". Because we do not have scientific understanding of how deep-sea ecosystems function, nor how they and their functions would be affected by exploitative activities, we must respect and apply the precautionary principle.

Part of the problem is that the main stakeholders involved are the ones with most interest in deep-sea mining, namely mining and exploitative companies. These types of companies and other industries interested in this exploitation (plastic industries, equipment, development companies, etc.) have the biggest lobbying operations). Hence, we recommend the further consolidation of a coalition of scientists and ocean-related organisations to inform government about the perils of deep-sea mining. The general public is also undereducated on deep sea mining. We suggest the development of a wide campaign to raise awareness about the dangers of deep-sea mining.

### Sources :

- Georgian et al. (2022)
- Amon et al. (2022a)
- Amon et al. (2022b)
- Documents from the Deep Sea Conservation Coalition (DSCC)

# TOURISM

## **Coastal tourism in harmony with nature and people :**

*Problem : Through continuous expansion and diversification, tourism has become one of the largest and fastest- growing economic sectors globally. Europe is expected to attract over 500 million international visitors by 2030, with its Mediterranean coastline being one of the most popular destinations. Maritime and coastal tourism is an essential socio-economic sector in the Mediterranean region, which local livelihoods and member State economies rely on. Unfortunately, tourism is a cause of environmental degradation as a consequence of reckless economic growth. Multiple studies have shown that the increasing growth of coastal tourism especially in the Mediterranean hotspot has caused manifold environmental pressures.*

*These include the depletion of fish stocks and marine mammal populations, destruction of natural habitats, deterioration of water quality, increasing pollution through plastic, wastewater discharge, light and sound, artificial modification of coastal geomorphology and interference with the natural processes at the interface of land and sea. Immense GHG emissions especially during peak travel periods, and generally high energy consumption at the destinations are further problems. In the face of unsustainable growth of this sector, these pressures when taken together risk producing disastrous outcomes: The extinction of species, biodiversity loss, exacerbation of the climate crisis, and the loss of beaches and coastal ecosystems to erosion and pollution. Tourism does not function without a healthy physical environment, meaning local livelihoods and the economies of multiple Member States are at risk without systemic changes in how coasts are managed, and tourism governed.*

## **RECOMMENDATIONS :**

- **Building on the European Tourism Indicator System (ETIS), we recommend a mandatory assessment, management, and monitoring scheme for coastal tourism with a strengthened role for biodiversity according to the new Kunming-Montréal Global Biodiversity Framework.**
- **Incentivize people and companies to take part in ecotourism practices via funding and tax schemes.**
- **The development of a campaign to raise awareness about the harmful impacts of unsustainable tourism.**

Create guidelines on coastal tourism governance that EU Member States can follow (different governance models for different needs). Within these tourism governance models, rethink the coastal spaces, such as limiting urban development in the short term, implementing setback zones/buffer zones, and inclusive decision-making. To better implement these guidelines, the EU, Member States and local authorities should support small-scale local NGOs to spread information on coastal risks and protection, targeting both residents and visitors, as a way to reconnect people with nature.

### *Sources:*

- Mejjad, N., Rossi, A., Pavel, A. B. (2022). The coastal tourism industry in the Mediterranean: A critical review of the socio-economic and environmental pressures & impacts. *Tourism Management Perspectives*, 44, 1-15.
- Cavallaro, F., Galatia, O. I., Nocera, S. (2017). Policy Strategies for the Mitigation of GHG Emissions caused by the Mass-Tourism Mobility in Coastal Areas. *Transport Research Procedia*, 27, 317-324.
- <https://www.kfw-entwicklungsbank.de/Our-topics/SDGs/SDG-12/SOF/>
- Ocean & Climate Platform. (2022). *Adapting Coastal Cities and Territories to Sea Level Rise in the Mediterranean Region: Challenges and Best Practices*. Ocean & Climate Platform. 48 pp.
- *Designing Coastal Adaptation Strategies to Tackle Sea Level Rise*

# PLASTIC POLLUTION

## ***Increase EU regulation on plastic for companies :***

*Problem : Plastic pollutes all types of environments, from the street in front of our home to the world's ocean and rivers. Consumers are often reminded of their environmentally harmful purchasing habits, and many are trying to consume less plastic-packaged products, but the challenge of plastic pollution cannot be tackled by the end consumer alone. Our recommendation focuses on the Extended Producer Responsibility (EPR), a policy tool which extends the producer's financial and/or operational responsibility for a product to include the management of the post-consumer stage.*

*As part of the European Green Deal, the EU is already working on an EU-wide implementation and harmonisation of EPR by 2024. For the moment it only exists in some EU countries and with different structures in each of them. Creating an EU-wide EPR system will be a big step towards the goal to make all packaging reusable or recyclable by 2030. We recognise the importance of a legislative imperative to use EPR in all the EU, accompanied by strict enforcement and minimum standards for cross-country harmonisation. Moreover, EPR schemes should apply to more items or sectors than just packaging, but also to other types of waste produced by companies. These changes should of course not happen without the EU's citizens. They need to be informed about how to use reuse, refill and recycling systems correctly to harness their advantages, while the cost should land mostly on the companies that use plastics in their packaging in order to motivate them to move towards less or even zero-waste in the future.*

## **RECOMMENDATIONS :**

- Implementing, harmonising and enforcing Extended Producer Responsibility (EPR) all over the European Union.
- Designing EPR schemes and pricing to be as transparent as possible, while preventing that waste management costs are put on the end-consumers.
- Accompany the implementation of EPR schemes with a public awareness campaign about proper recycling and other even more desirable options such as refill and reusing.
- Extending the EPR schemes to a wider range of waste types associated with companies' activities.

### *Sources :*

- EPR definition: <https://www.europen-packaging.eu/policy-area/extended-producer-responsibility/>
- Situation in the EU: <https://packagingeurope.com/features/a-conversation-with-the-inventor-of-extended-producer-responsibility-/9416.article>

# RENEWABLE MARINE ENERGY

## **Development and regulatory framework of Marine Renewable Energy :**

*Problem: The transition to renewable energy is needed to keep global heating below 1.5 degrees and to cope with climate change. The political situation in Europe has led to increased awareness of energy and its origins, involving citizens in this issue. It is clear that public opinion is more than favourable to the development of Marine Renewable Energy (MRE). The current energy crisis calls for a transition, which must be efficient while minimising the risks to the ocean and biodiversity.*

*The potential problems associated with MREs are likely to vary according to the types of development, habitat, and species present in the area hosting installations. While at the global level the advantages of renewable energy are not in doubt, the effects on the local environment must also be carefully considered. The impact will also vary during the lifetime of MRE installations with the greatest expected consequences being during construction and decommissioning as a result of factors such as direct habitat destruction and displacement, underwater and surface noise, contamination, altered sedimentary processes, electrical and electromagnetic disturbances, collisions, etc... If appropriately managed and designed, MREs may increase local biodiversity and potentially benefit the wider marine environment by acting as artificial reefs, fish aggregating devices and may influence the creation of marine-protected areas. There is an urgent need for further multidisciplinary and interdisciplinary biodiversity-oriented research, ranging from engineering to policy.*

## RECOMMENDATIONS :

- EU supports international collaboration and sharing of data.
- Increase funding, reduce market risks and encourage investment in marine renewable energy.
- Shifting subsidies from fossil fuels to marine renewable energy:
  - Detailed research to identify critical areas for marine species and to obtain information on population structure, status, distribution, migration routes, feeding, and calving grounds (Inger et al., 2009). To obtain this data, international collaboration and sharing of research results will be essential.
  - Clear international guidelines and transparent government strategy based on research on the impacts are required for the protection of marine organisms when planning MREs.
  - Alternative methods to pile-driving need to be developed and implemented urgently.
  - Reduce market risks and enable and encourage investment, including streamlined planning, permitting, and regulatory processes.
  - Global financial systems must align their lending portfolios to accelerate the transition to MREs.
  - Shifting subsidies from fossil fuels to renewable energy not only cuts emissions, it also contributes to sustainable economic growth, job creation, better public health and more equality.

To quote the UN Secretary-General, “renewables are the only path to real energy security, stable power prices and sustainable employment opportunities.”

*Sources :*

*About the potential impacts of MREs:*

- *Marine renewable Energy: A Global Review of the Extent of Marine Renewable Energy Developments, the Developing Technologies and Possible Conservation Implications for Cetaceans* (pnnl.gov)
- *Marine renewable energy: potential benefits to biodiversity? An urgent call for research* (wiley.com)
- *EN010087-001385-DL2 - Whale and Dolphin Conservation - Deadline Submission.pdf* (planninginspectorate.gov.uk)
- *(PDF) Reconciliation ecology and the future of species diversity* (researchgate.net)
- *Assessing wave energy effects on biodiversity: the Wave Hub experience* | *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences* (royal-societypublishing.org)

*About the ways to develop MREs:*

- *Five ways to jump-start the renewable energy transition now* | *United Nations*



# **OTHERS CONTRIBUTIONS**

*Mapping fish populations to better inform policy makers, economic actors and populations.*

## CONTRIBUTIONS:

To avoid overfishing in certain areas where some species are already endangered, we should work to better map and monitor fish populations. Indeed, better knowledge leads to better management and regulation, and provides legitimacy to data-based marine protected areas. For example, the Marine Institute in Ireland is working on creating maps of fish populations so that fisheries can target specific species and avoid areas that would lead them to surpass their quotas.

Sources :

- <https://www.marine.ie/site-area/data-services/interactive-maps/biological-sampling-surveys>.



### ***Implement measures to mitigate and/or avoid effects of shipping on marine life:***

*Problem: 75 marine species have been identified in collisions with marine vessels. Also, invasive species & submarine noise have a huge impact on marine life.*

## **CONTRIBUTIONS:**

### **- Many solutions can be implemented to mitigate/stop the collisions:**

- Identification of high-risk areas - currently 14 are listed by the International Whaling Commission Conservation Committee
- Mitigation measures such as:
- Geographical measures (including traffic separation schemes (TSS) - Separating shipping lanes and marine species habitats (examples in the Mediterranean Sea, Sri Lanka) - infographic
- Routing measures outside and inside territorial waters
- Create no-go zones
- Dynamic management areas (DMA)
- Year-round recommended routes
- Seasonal rerouting
- Permanent, voluntary, seasonal areas to be avoided (ATBAs)
- On-board vessel measures:
- Speed restrictions
- Animal detection on board
- Deterrent devices
- Propeller guards

### **- Concerning the invasive species :**

- Respective legislation: the EU Regulation 1143/2014 on invasive alien species & the International Convention for the Control and Management of Ships' Ballast Water Sediment
- Minimize and, whenever possible, avoid the uptake of ballast water
- Implement at the EU level the measure listed in the Performance indicator's objectives related to "Aquatic Invasive Species" of the Green Marine Europe label

### **- About the submarine noises:**

- To implement speed restrictions for ships in a binding international regulation framework
- To integrate an underwater noise thresholds in EU directive Marine Strategy Framework Directive (2008)
- To study solutions such as the use of bubble curtain ?

Sources :

- <https://www.frontiersin.org/articles/10.3389/fmars.2020.00292/full>
- <https://www.universiteitleiden.nl/en/news/2021/02/noise-pollution-affects-marine-life-worldwide>
- <https://dosits.org/galleries/audio-gallery/anthropogenic-sounds/bubble-curtain/>

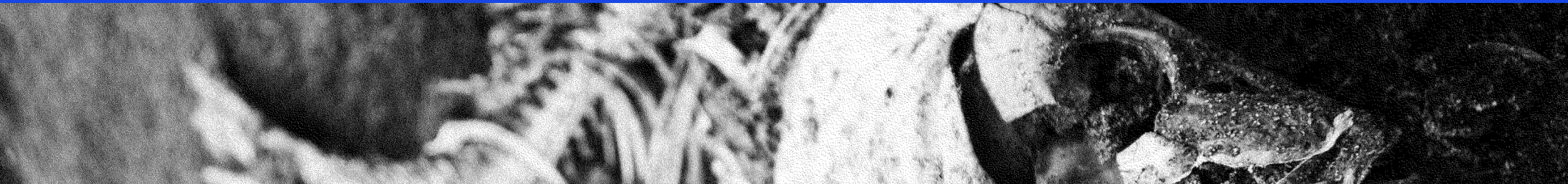


### **Measures to prevent chemical pollution:**

*Some chemical pollutants can act as endocrine disruptors for both fish (fauna in general) and humans.*

## **CONTRIBUTIONS:**

- **New water treatment method/ Wastewater treatment plants regulation:** In the past, emerging pollutants were unknown, so treatment plants only removed solids (bulky and suspended) and oils from water. Now, we know that there are other contaminants in the water (emerging contaminants): residues of detergents, medicines, pigments, and pesticides... Therefore, a new water treatment method must be adopted. In most wastewater treatment plants there are no methods to detect or treat emerging pollutants such as chemical pollutants. Money should be invested in reducing pollution at source first and foremost, and in new water treatment methods at the treatment plant level instead of analysing the water once it has reached the rivers and seas and having to do local remediation. Existing processes, such as reverse osmosis, should also be optimized to reduce costs. Whenever feasible, all treatment plants should be required to have these control and water treatment points
- **Regulation on substances:** Currently, most of the pollutants or priority substances to be tackled across the EU have individual threshold values that do not account for mixture effects. Additionally, one substance that is regulated can easily be substituted by another with similar harmful properties. Setting threshold values for a group of substances with similar properties is a way to counter that, while not having an impact on the substance-by-substance monitoring established by the Environment Quality Standard Directive and Groundwater Directive.
- **Upgrading the list of Priority Substances (PS) to reflect reality:** we need the full picture of chemical pollution in aquatic environments, which is underestimated and underreported.
- **Monitoring of pollutant substances** should be made more often. We propose doing it every 1-2 years, down from the current 4 years.
- **Mercury:** controlling countries who took part in the Minamata convention. These countries are engaged in reducing mercury emission, but still not... Mercury has a significant impact on marine mammals, on sea birds for example, or top predators in general.



### ***Update some EU Directives related to water quality:***

*Over the years, we have gained more and more knowledge about the ocean and the effect of human activities on it. As a result, some EU directives related to water quality are becoming obsolete. Therefore, the EU needs to revise:*

## **CONTRIBUTIONS:**

- Lists of surface and groundwater pollutants under the Water Framework Directive (2000/60/EC – WFD)
- The Environmental Quality Standards Directive (2013/39/EU – EQSD)
- The Groundwater Directive (2006/118/EC – GWD)
- The bathing water directive

### *Sources :*

- [https://environment.ec.europa.eu/news/water-management-commission-consults-update-lists-pollutants-affecting-surface-and-ground-waters-2021-07-26\\_en](https://environment.ec.europa.eu/news/water-management-commission-consults-update-lists-pollutants-affecting-surface-and-ground-waters-2021-07-26_en)
- <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32013L0039>
- <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32006L0118>
- Surfrider Manifesto : [https://surfrider.eu/wp-content/uploads/2021/06/manifesto\\_short\\_en.pdf](https://surfrider.eu/wp-content/uploads/2021/06/manifesto_short_en.pdf)
- <https://www.eea.europa.eu/themes/water/europes-seas-and-coasts/assessments/state-of-bathing-water/bathing-water-directives>

