

European issues

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Governing the ocean

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The sea is a far away place, so immense as to be abstract: you don't live there, you don't vote there, you don't own private property there. Understanding its importance, its link with our daily lives, understanding Fernand Braudel's phrase "*the sea is wealth*", is not the result of instinct, of familiarity with a land, it is always the result of an intellectual construction.

It is perhaps tinged with fascination too, for poets and novelists, for walkers along the "*Sentier des Douaniers*" in a strong westerly breeze.

Doubling as wonder, certainly, for the scientists who unlock the splendours of marine biology (the appearance of life in the primordial soup, the creation of an oxygenated atmosphere by unicellular algae, the key to nerve impulses discovered in the eye of a squid, etc.) or who examine the immeasurable power of the mechanisms and chemistry of the ocean, such as the meandering Gulf Stream, whose flow is greater than that of all the rivers on earth combined, or the quantity of heat retained in the first three metres of the ocean, which is greater than that contained in the entire atmosphere.

But if the European Union, this maritime giant in the making, is taking an interest in ocean issues, and if the United Nations has made [this decade that of the ocean sciences](#) for sustainable development, it is because the ocean's state of health, our knowledge of it and the efficacy of our governance, will determine a part of our future. Indeed, the ocean is at the crossroads of a number of decisive pathways.

Firstly, the path of climate change, since the ocean mitigates this as it absorbs 25% of the carbon dioxide[1] we emit and 90% of the excess heat generated by the greenhouse effect[2]. In the process, it is changing, warming, expanding, acidifying and 'deoxygenating': as its ecosystems are affected, it will probably lose some of its effectiveness as a climate shield.

Secondly, the path of biodiversity which is under the threat of the combined effects of climate, marine pollution and over-exploitation, the disruption of which could affect the hundreds of millions of

humans who depend on fish stocks, and lead to the disappearance forever of the biological treasures forged by evolution, which teach us about life and its development as well as our own physiology, our own pathologies and, sometimes, their remedies.

Thirdly, the coastal pathway, where low-lying areas will be home to a billion human beings by 2050, while sea levels will rise, encroaching on coastal areas and amplifying the impact of extreme weather phenomena.

Fourthly, the economic path which places the ocean at the centre of all our commercial and digital exchanges, globalisation being first and foremost a maritimisation of the world.

Finally, the trajectory of power, which uses the seas as a stage for competition for global or regional hegemony.

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FOUR SCENARIOS FOR THE OCEANS

And so, in the years to come ...

Ocean governance will be under strain. The law applied there is contested, and the bodies that implement it are still insufficiently adapted to the new challenges facing the oceans.

The Law of the Sea has its own Constitution, the [UN Convention on the Law of the Sea](#), adopted in Montego Bay, Jamaica, in 1982, which came into force in 1994. This law is increasingly being challenged by countries that did not sign the UN Convention, such as Turkey in the Eastern Mediterranean. But also, by countries that have

[1] Marina Lévy ; Comment l'océan absorbe-t-il le carbone que nous produisons ? in « 30 questions sur l'océan », by the Sorbonne Université Presses

[2] Eric Guilyardi ; Qu'est-ce que la circulation océanique ? in « 30 questions sur l'océan » by the Sorbonne Université Presses

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ratified it, such as China, which feigns ignorance of some of its principles, such as "*land dominates the sea*", and rejects its dispute resolution mechanisms in the South China Sea.

This stance is all the more astonishing given that over the last thirty years China has probably been the main beneficiary of the law of the sea and freedom of navigation, which have been key drivers of its prosperity and unprecedented commercial growth. This evokes the English naval posture of the 17th century: "*what's near me is mine, what's near you is ours*".

Those who drafted the Montego Bay Convention had little or no idea of the situations we must, and will continue to face: the threats to [marine biodiversity in international waters](#) for which there is no national jurisdiction to regulate human activities and preserve the environment; the impact of deep-sea mining on ecosystems unknown in 1982, when the exuberant chemosynthetic life around hydrothermal vents had only just been discovered; the rise in sea level, which in some places will cut deeply into coastlines, pushing them forever away from the baselines that define territorial waters and economic zones. Moreover, will a submerged island retain its territorial waters?

Finally, the bodies that implement this law are segmented and siloed. One deals with fishing, another with shipping, a third with science, another with labour law for seafarers and another with the Southern Ocean. None of them has a global competence commensurate with the issues we face. When "*terrestrial*" states discuss biodiversity or climate, they share assessments of the situation, and then each can commit to measures that, while limited by national borders, are coherent and global in their scope.

None of this applies to the oceans. More than half the planet is in a blind spot, which will eventually be reduced, thanks to the [international agreement for the protection of the oceans](#) (*Biodiversity Beyond National Jurisdiction, BBNJ*) concluded in March 2023 after fifteen years of negotiations.

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And so, in the years to come ...

Food security might be brutally threatened in certain regions where fishing is essential.

We know that fish species may disappear from certain parts of the ocean. This was the fate of cod in Newfoundland and sardines in California. They were extraordinarily abundant there, but disappeared, wiped out by overfishing. These irreversible threshold effects are now well known. Europe has built up an extensive scientific, administrative and [political](#) infrastructure to protect its fisheries, to make them sustainable, imposing strict quotas on threatened stocks, relaxing constraints once populations have recovered, and monitoring maritime areas. Not everything has yet been resolved in European waters, and threats persist, but progress is being made.

On the other hand, other regions, such as West Africa, which are rich in fish resources and highly coveted by fishermen from all over the world, do not receive the same level of attention as European fish. Yet this resource contributes to food security and the socio-economic balance of vast coastal areas. A disruption similar to those that occurred in Newfoundland or California would have formidable food, economic and, probably, political consequences.

Here there might be a good opportunity to develop a large-scale European project based on the [Yaoundé Architecture](#) developed by the countries bordering the Gulf of Guinea to improve their maritime safety. The first step would be to share scientific knowledge on the observation, modelling and sustainability of marine species, and then to communicate administrative practice regarding the management of fish stocks, so that relevant decisions can be taken on the basis of shared scientific knowledge within an international framework, since fish do not read maps and ignore borders.

To protect their waters and the local communities that live on them, we also need to provide our partners with maritime surveillance resources using drones, satellite data and artificial intelligence technologies,

and then deploy and maintain "turnkey" fisheries, policing resources along the lines of the [Pacific Maritime Security Program](#) led by Australia in the western Pacific. When resources for intervention are scarce, prior surveillance is essential to guide the fisheries police to the right targets and make the most of expensive hours at sea. Understanding in order to make decisions, and monitoring in order to intervene, are four necessary components in the preservation of sustainable fishing.

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And so, in the years and decades to come ...

Coastal infrastructures and coastal towns will adapt, change and even move as a result of rising sea levels[3].

This need will be more urgent in highly urbanised river deltas, which will sink faster. Although some regions, such as Scandinavia, seem likely to be spared, the cost of these changes will be considerable, and their impact on societies profound.

In some cases, dykes will be raised to continue protecting land that has become polders below sea level. Often, millions of people will be relocated as part of a long-term, organised and planned process, or suddenly in the dramatic emergency that follows an extreme climate event.

The ports whose network currently organises world trade will be redistributed, and access to their hinterlands redesigned.

This will not happen overnight, but geologists, urban planners, economists and geographers will have to study each stretch of shoreline and assess the transformations they will undergo, the States that will finance them and the human communities that will endure them.

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And so, in the years to come ...

China will have built a navy capable of rivalling that of the US.

Unlike the Soviet Union during the Cold War, which perfectly analysed its weaknesses and concentrated its efforts on its submarine fleet so as to break the transatlantic maritime link, the People's Liberation Army seems to be embarking on an exercise in imitation of the US Navy: the same aircraft carriers, the same destroyers, the same submarines, the same fleet structure. An imitation exercise with dubious prospects, given China's unfavourable geographical situation, landlocked by shallow seas and island chains, and totally dependent on distant straits that are vital for its supplies and exports.

This naval rivalry, and the prospect of a confrontation on the high seas off Taiwan or elsewhere, is inspiring other countries that are less powerful than China but just as keen to assert themselves on regional stages such as the Mediterranean or the Indian Ocean.

It has revived a strategic concern that had been forgotten since the end of the Cold War: the security of maritime spaces is not a given. Controlling these areas to protect one's own trade, digital traffic, fishing, allies or to limit the activities of one's adversary is a competition that could turn into a confrontation.

Behind aggressive naval postures, policies of *fait accompli* and intimidation, and the rapid rise in power of many navies, there is the possibility that the maritime flows of energy, foodstuffs, goods and data that supply us, without our being clearly aware of it, could dry up with a magnitude and brutality of which the war in Ukraine, mainly land-based and geographically contained, has only given us a foretaste.

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The ocean is not a landscape. It is not neutral, nor is it inert. It is being transformed by the climate shift and our activities. This transformation will have a profound impact on human life. To reduce the effects of this, we need to anticipate these changes, i.e. understand their mechanisms and model them so that we can predict them as accurately as possible.

[3] Denis Mercier, [Quels sont les littoraux menacés par l'élévation du niveau de la mer ?](#), in « 30 questions sur l'océan », Sorbonne Université Presses

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This scientific prerequisite is absolutely necessary, but its scope would be limited if it were not the subject of a dialogue, or panel, with renewed ocean governance, which is still fragmented and piecemeal. Setting up these regular exchanges between ocean scientists and political authorities to inform their decisions is the ambition of the IPOS (International Panel for Ocean Sustainability) initiative launched at the One Ocean Summit in Brest in February 2022, supported in France by oceanographer Françoise Gaill[4], [supported by many scientific bodies across the world](#), but also by the European Parliament and the Commission. This ambition will find concrete expression at the United Nations Conference on the Oceans, organised jointly by France and Costa Rica in Nice in June 2025.

Ocean matters require a dedicated and international response, and this is the starting point for the IPOS initiative. In this approach, the Law of the Sea is a precious legacy that we must both preserve from destructive threat (contests) and adapt to our challenges.

[4] Gaill, F, Brodie Rudolph, T, Lebleu, L et al. [A step towards scientific consensus for a sustainable ocean future](#) npj Ocean Sustain 1, 7 (2022)

The adoption of the BBNJ Treaty is therefore promising, even if it is only a first step. Indeed, there will be many challenges ahead, one of the most difficult of which will be to strike a new balance between freedom of navigation and governance of the high seas. This balance has been the subject of controversy for centuries, and the Montego Bay Convention found a key to this with the invention of exclusive economic zones. It is a balance that carries a great deal of weight because it is also part of the geopolitical equations of the maritime economy and the competition between oceanic powers in the South China Sea, the Arctic and the Eastern Mediterranean Sea.

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